

**LANDFILL RECLAMATION WORK PLAN**

**PORT OF ALBANY EXPANSION PROJECT**  
**BEACON ISLAND PARCEL**  
**BETHLEHEM, ALBANY COUNTY, NEW YORK**



*WBE certified company*

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## 1.0 INTRODUCTION

Atlantic Testing Laboratories, Limited (ATL) was retained on behalf of the Albany Port District Commission to prepare a Landfill Reclamation Work Plan in association with planned site redevelopment work at the Beacon Island site that is impacted with coal ash material and related debris. Proposed work activities include excavation of a portion of the coal ash material, from areas where scheduled earthwork cuts are needed to complete the planned redevelopment, and relocation of the excavated coal ash for placement at other on-site areas where coal ash exists. This relocation of coal ash material is considered to represent a landfill reclamation activity, subject to registration through the New York State Department of Environmental Conservation (NYSDEC) pursuant to 6 NYCRR Part 360-15. A registration form for this activity has been prepared and is included as **Appendix A**.

This Landfill Reclamation Work Plan has been prepared to address criteria described in 6 NYCRR Part 363-11.4. In addition, elements of requisite feasibility study (6 NYCRR Part 363-11.3) and emergency response plan (6 NYCRR Part 363-11.6) have been incorporated into this Landfill Reclamation Work Plan to streamline the submission and review process. The following table presents a summary of criteria described in 6 NYCRR Part 363-11.3, 11.4, and 11.6, and applicable sections for which pertinent information and details are provided.

6 NYCRR Part 363 Subpart Reference	Criteria	Applicable Sections of Landfill Reclamation Work Plan
<b><i>Feasibility Study</i></b>		
11.3(a)(1)(i)	A description of the vertical and areal extent of the landfill	Sections 2.3 and 2.4; Figures 4a, 4b, 5a, 5b, 6a, and 6b
11.3(a)(1)(ii)	A delineation of discrete or partially separated areas of the landfill, or special waste disposal areas	Sections 2.4 and 3.2
11.3(a)(1)(iii)	A description of the age, type of waste and cover material, landfill operation method, and estimate of volume for each area of the landfill	Sections 2.2, 2.3, 2.4, 3.3, 3.4, 3.4.1, 3.4.2, and 3.4.3
11.3(a)(1)(iv)	An estimate of the water table depth throughout the area to be reclaimed	Section 2.3, Figures 5a, 5b, 6a, and 6b
11.3(a)(1)(v)	An assessment of available work space for equipment staging, material storage, and other work areas	Section 3.4.2
11.3(a)(1)(vi)	An evaluation of the landfill's existing groundwater monitoring system, procedure, and most recent analytical data	Sections 2.6, 3.1.1, 3.5, and 3.6; Appendices B and C
11.3(a)(1)(vii)	An assessment of the landfill gas generated by the landfill	Sections 2.7, 2.7.1, and 2.7.2; Appendix B
11.3(a)(1)(viii)	A description of the regulatory history of the landfill	Section 2.2
11.3(a)(2)	A feasibility study field investigation work plan that describes all of the field work and laboratory analysis that is part of the feasibility study.	Section 2 and associated subsections; Appendix B

<b>6 NYCRR Part 363 Subpart Reference</b>	<b>Criteria</b>	<b>Applicable Sections of Landfill Reclamation Work Plan</b>
<b><i>Feasibility Study (continued)</i></b>		
11.3(b)(1)	A description of sampling, analysis, test pits, and test borings.	Section 2 and associated subsections; Appendix B
11.3(b)(2)	The thickness of waste fill and depth to the water table	Sections 2.3 and 2.4; Figures 5a, 5b, 6a, and 6b
11.3(b)(3)	A characterization of excavated materials.	Sections 2.3, 2.4, and 2.5
11.3(b)(4)	Analysis of reusable fill material component, if applicable.	Section 3.4.3
11.3(b)(5)	An evaluation of the suitability of the excavated material for reuse or recycling, the need for further processing, and the expected final disposition.	Sections 3.0 and 3.2
11.3(b)(6)	An assessment of potential costs.	Section 3.0
11.3(b)(7)	An assessment of the benefits and impacts associated with landfill reclamation.	Section 3.0
11.3(b)(8)	A determination as to whether landfill reclamation is feasible.	Section 3.0
<b><i>Reclamation Work Plan</i></b>		
11.4(a)(1)	A vicinity map that shows the area within one mile of the boundaries of the landfill to be reclaimed; the existing and proposed zoning and land use within that area; and residences, access roads, and other existing and proposed artificial or natural features relating to the reclamation of the landfill.	Section 2.1; Figure 1
11.4(a)(2)	A site plan showing the landfill's property boundaries; the utilities including electric, gas, water, storm, and sanitary sewer systems and right-of-way easements; the names and addresses of abutting property owners; the location of the proposed reclamation; the landfill liner system and leachate collection, storage, treatment and pumping systems; the landfill gas management system, if any; on-site buildings and appurtenances, fences, gates, roads, parking areas, drainage culverts, and signs; a wind rose; and the site topography.	Section 3.0; Figure 2
11.4(a)(3)	Detail of the proposed reclamation area adequately delineating in plan and cross-sectional view, the depth of excavation, proximity to the liner and leachate collection and disposal system, if any, other landfill structures and equipment, and direction of progression.	Sections 3.0 and 3.2; Figures 4a, 4b, 5a, 5b, 6a, and 6b

6 NYCRR Part 363 Subpart Reference	Criteria	Applicable Sections of Landfill Reclamation Work Plan
<b>Reclamation Work Plan (continued)</b>		
11.4(a)(4)	A description of procedures to excavate, process, store, transfer, use, and dispose of excavated material.	Section 3 and associated subsections
11.4(a)(5)	A stormwater and leachate management plan.	Section 3.6
11.4(a)(6)	The procedure for site clean-up and grading after reclamation described with detailed drawings showing original and final grades.	Section 3.0; Figures 2, 4a, and 4b
<b>Emergency Response Plan</b>		
11.6(a)	Emergency response plan in accordance with 6 NYCRR Part 360.16(c)(4)(iv)	Appendix F

Information presented in this Landfill Reclamation Work Plan has been compiled from a review of available reports describing site assessment and investigation activities, in addition to plans and reports prepared for design of the Port of Albany expansion project. Documents referenced for the preparation of this work plan include the following.

Appendix B – Previous Reports

- Draft Phase II Environmental Site Assessment Report for Beacon Island, Glenmont, NY, prepared by Bergmann Associates for Port of Albany District Commission, with issuance date of April 16, 2017 and referenced as Bergmann Project No. 12084.00 (referenced herein as *Draft Bergman Phase II Report (2017)*)
- Environmental Subsurface Investigation and Soil Sampling report for Port of Albany Expansion Project – Beacon Island Parcel, prepared by ATL for McFarland-Johnson (on behalf of the Port of Albany District Commission), dated October 22, 2020, and referenced as ATL Report No. AT5596CE-04-10-20 (referenced herein as *ATL Environmental Subsurface Investigation Report (2020)*)
- Geotechnical Engineering Report for Proposed Marmen Manufacturing Facility at Port of Albany, prepared by Terracon Consultants – NY, Inc., for McFarland-Johnson (on behalf of the Port of Albany District Commission), dated February 4, 2022, and referenced as Terracon Project No. JB215020 (referenced herein as *Terracon Beacon Island Geotech Report (2022)*)
- Soil Sampling and Analysis Report for Port of Albany Expansion Project – Beacon Island Parcel, prepared by ATL for LaBella Associates (on behalf of the Port of Albany District Commission), dated October 17, 2022, and referenced as ATL Report No. CD10428CE-01-10-22 (referenced herein as *ATL Soil Sampling Report (2022)*)
- Soil Vapor Sampling and Analysis Report for Port of Albany Expansion Project – Beacon Island Parcel, prepared by ATL for LaBella Associates (on behalf of the Port of Albany District Commission), dated October 17, 2022, and referenced as ATL Report No. CD10428CE-02-10-22 (referenced herein as *ATL Soil Vapor Sampling Report (2022)*)
- Preliminary Data Results for Site Investigation at Beacon Island, submitted by NYSDEC to Port of Albany, via letter dated March 31, 2021 (referenced herein as *NYSDEC Groundwater Data (2020)*).

Appendix C – SWPPP

- Stormwater Pollution Prevention Plan (SWPPP) for Marmen-Welcon Tower Manufacturing Plant, prepared by McFarland Johnson for Albany Port District Commission, dated August 2021 and updated October 2021 and January 2022 (reference herein as *McFarland Johnson SWPPP (updated 2022)*)

Appendix D – Soil Management Plan

- Soil Management Plan (SMP) for Port of Albany Expansion Project – Beacon Island Parcel, prepared by ATL for McFarland-Johnson (on behalf of the Port of Albany District Commission), dated October 20, 2022, and referenced as ATL Report No. AT5596CE-05-10-20 Revision 2 (referenced herein as *ATL SMP (2022)*)

Appendix E – Community Air Monitoring Plan

- Community Air Monitoring Plan (CAMP) for Port of Albany Site Expansion, prepared by Watson & Associates Occupational Health and Safety, LLC for LaBella Associates on behalf of Albany Port District Commission, Revision 4 dated October 12, 2022 (referenced herein as *Watson CAMP (2022)*)

## 2.0 SITE INVESTIGATION

### 2.1 Site Location

The subject site is the Beacon Island parcel located to the east of River Road (County Route 144) and along the west side of the Hudson River, in the Town of Bethlehem, Albany County, New York. The subject site is intersected by 42° 36' 11" north latitude and 73° 45' 57" west longitude. The Beacon Island parcel is comprised of approximately 80 acres, and is the site of a planned expansion for the Port of Albany.

Properties directly north of the subject site include manufacturing and processing facilities and warehouse/distribution facilities, primarily associated with the Port of Albany. Properties directly to the south include an electric power generation facility. An electric transmission line corridor is located adjacent to the west of the subject property, followed by commercial and residential properties located along River Road. The Hudson River is immediately east of the subject site.

A Site Location Map, showing the location of the subject site and properties within a 1-mile radius, is attached as **Figure 1**. Zoning/land use for properties within 1 mile from the site boundaries is indicated with copies of zoning maps for the municipalities surrounding the subject site. The zoning maps are provided as subset figures to the Site Location Map, due to the properties within a mile of the subject site being part of 4 different zoning jurisdictions: Town of Bethlehem, City of Albany, Town of East Greenbush, and City of Rensselaer. The subject site is located within the northeast corner of the Town of Bethlehem, on the west side of the Hudson River. Nearby properties in the Town of Bethlehem include industrial zoned properties in the immediate vicinity, and residential, rural, and commercial zoned properties further out. The City of Albany is located to the north of the subject site, and properties that are within 1 mile of the subject site and within the City of Albany limits include industrial zoned sites. The Town of East Greenbush is located to the east of the subject site, on the opposite side of the Hudson River.

Properties that are along the waterfront for East Greenbush, and within 1 mile of the subject site, are primarily zoned as coastal industrial with residential districts further inland. The City of Rensselaer is located to the northeast of the subject site, on the opposite side of the Hudson River, and there is a section of properties in the city limits that are within 1 mile of the subject site. These properties are zoned industrial.

## 2.2 Review of Site History

Information provided in the *Draft Bergmann Phase II Report (2017)* indicates significant portions of the subject site were historically covered by water and fill was placed to make land from approximately the 1890s to the late 1920s. Ash spoils from the Albany Steam Station (formerly Bethlehem Energy) and Niagara Mohawk were subsequently disposed of at the subject site from 1952 through 1970. It was also reported that the landfilled coal ash was filled on top of original ground surface and/or historic fill.

Information provided in the *McFarland Johnson SWPPP (updated 2022)* indicates the project site was historically comprised of small islands and river channels subject to natural shifts due to flows associated with the Hudson River and the former Island Creek. Island Creek was a side channel of the Hudson River that flowed along the west side of the subject site, where the electric utility corridor currently exists, and discharged to the Hudson River at the south end of the subject site. At some time between 1936 and 1961, the Island Creek channel was diverted directly to the Hudson River at the north end of the site, and thenceforth referred to as Normans Kill. Consistent with information described in the *Draft Bergmann Phase II Report (2017)*, the *McFarland Johnson SWPPP (updated 2022)* describes historic filling operations to create usable lands, with a portion of the site operated as a coal ash disposal site.

Information provided in the *Terracon Beacon Island Geotech Report (2022)* indicates the subject site is in an area historically occupied by Beacon Island and a portion of Cabbage Island, where side channels of the Hudson River separated the islands from the mainland and from one another. Historical fill placement has resulted in the former islands being joined to the mainland. Similar to other referenced reports, the *Terracon Beacon Island Geotech Report (2022)* describes historical fill placement to include waste coal ash originating from the power generating station just south of the site, from the 1950s to about 1970 (when boilers were converted to use fuel oil and later natural gas). The *Terracon Beacon Island Geotech Report (2022)* further describes that the method of placement of the coal ash is unknown, but believed to have been transported in bulk and pushed/tracked into place as opposed to being hydraulically placed.

Subsequent to site fill and coal ash waste disposal up to 1970, the subject site has remained vacant. Available information indicates that placement of ash contaminated wastes ceased before 1970. Pursuant to correspondence with the NYSDEC, conditions for the ash contaminated soil would need to be compliant with regulations applicable at the time site disposal activities were ceased. The regulations at that time would require a landfill to be closed with at least 2 feet of suitable cover.

Additionally, soil impacted by apparent weathered petroleum was encountered during subsurface investigation in October 2022, as described in *ATL Soil Sampling Report (2022)*. The weathered petroleum-contaminated soil had not been identified during previous subsurface investigations and appears to be an isolated area. While the source cannot be specifically verified, the affected material was consistently observed at depths of around 1 to 5 feet below ground surface, comprised of apparent fill confined by an

underlying clay layer, and delineated to be within an area with generally higher elevation than surrounding land. Based on these conditions, it is presumed to be resultant to dumping from an off-site source. A petroleum product fingerprint analysis is pending as of the date of this Landfill Reclamation Work Plan. A spill was reported to the NYSDEC Spill Hotline on October 12, 2022, and Spill No 2206029 was assigned to the site.

### 2.3 Subsurface Characteristics, Geology, and Hydrogeology

Subsurface conditions at the subject site have been characterized through previously completed geotechnical and environmental subsurface investigations.

The *McFarland Johnson SWPPP (updated 2022)* provides a summary of subsurface conditions compiled from information and data presented in the geotechnical investigation reports, in addition to related soil and bedrock descriptions from other sources. The *Terracon Beacon Island Geotech Report (2022)* also provides descriptions for subsurface conditions based on data from geotechnical investigations. The following is a summary of subsurface characteristics and geologic and hydrogeologic conditions that have been described in the aforementioned reports for the subject site.

- According to the Natural Resources Conservation Service (NRCS) web soil survey, there are 5 mapped soil units identified within the project boundary. The majority of the soil at the site falls within the hydrologic soil group B/D. Group B soils have moderate infiltration and runoff rates while Group D have a low infiltration rate and a high runoff rate.
- The subsurface conditions of the site are generally characterized by historic fills of various depths overlying, in sequence with depth, river sediments, alluvial sands, glaciolacustrine silt/clay, glacial till, and shale bedrock.
- *Terracon Beacon Island Geotech Report (2022)* identifies 5 model layers within the subsurface profile at the subject site. General descriptions provided for the model layers (as cited from *Terracon Beacon Island Geotech Report (2022)*) include the following:
  - **Fill**: In general, coal ash on the west and south end of the site. Elsewhere sand, silt, gravel, and/or clay in varying proportion, along with occasional organics and/or foreign material such as cinders, slag, brick, metal, wood.
  - **Alluvium**: Sand with lesser amounts of gravel, frequently intermixed or interbedded with silts and/or clays. Relatively minor amounts of organics common.
  - **Silt and Clay**: Glaciolacustrine silt and clay deposit.
  - **Glacial Till**: Fine sand and silt with embedded coarser sands, gravel, rock fragments. Some cobbles and boulders. Sometimes clayey.
  - **Bedrock**: Shale bedrock. Upper few feet relatively weathered.
- Fill was noted at specific boring locations from the geotechnical investigations, ranging from 6 to 23 feet below existing grade. The fill material is characterized as a random landfill deposit with observed materials including foundry sand waste, sand silt, coal ash, gravel, and organic matter. A predominant component of the fill was reported as coal ash.
- Shale bedrock was found beneath the glacial till at select boring locations for the geotechnical investigations. The depth to rock ranged from approximately 61 feet below grade near the northwest portion of the site, to greater than 148 feet at the southeast portion of the site. Rock depths appear shallowest on the north and west sides of the site and increase to the east towards the Hudson River and in a south direction across the site. Based on the New York State Museum and

Science Service's Geologic Map of New York State: State Hudson-Mohawk Sheet, and the Geotech rock core samples, the bedrock appears to be consistent with the Normand kill Shale Formation.

- Geotechnical investigation reports identify shallow groundwater observed at depths ranging from approximately 1.5 to 13.7 feet below existing grade. Due to the subsurface conditions, the shallower observations could be representative of perched groundwater zones due to discontinuous impermeable layers. Shallow groundwater fluctuations should be expected to occur at this site depending on several factors such as rainfall, seasonal changes, prevailing climate, ambient weather conditions, and the tidal influences of the Hudson River.
- The mean high water table in the Hudson River/Normans Kill is at elevation of approximately 4 feet, and groundwater would generally be expected at or near this level. Tidal waters are expected to influence the water levels in and around the subject site. *Terracon Beacon Island Geotech Report (2022)* identifies that information provided for their use indicates extreme floodwaters may rise to about elevation 18 feet or more.

The environmental subsurface investigations performed at the subject site, as described in *Draft Bergmann Phase II Report (2017)*, *ATL Environmental Subsurface Investigation Report (2020)*, *ATL Soil Sampling Report (2022)*, and *ATL Soil Vapor Sampling Report (2022)*, have identified similar observed subsurface conditions as those reported in the geotechnical reports.

#### **2.4 Extent of Landfill Material**

No specific records have been made available that identify disposal of wastes other than coal ash. The subsurface investigation work conducted relative to the environmental and geotechnical investigations performed between 2017 and 2022 included the advancement of test pits and borings/probes at 90+ locations. The findings of these investigations have confirmed that waste materials deposited at the site are primarily the coal ash. There was an area of apparent weathered petroleum-related contamination identified for a section of the site; however, no other locations of subsurface test pits, borings, or probes have identified evidence of petroleum-related contamination. Current available information has not identified any other areas of discrete or partially separated wastes or areas of special waste disposal.

The extent of existing landfill material (coal ash and soil with apparent weathered petroleum) has been approximated based on the data available from the subsurface test pits and borings/probes that have been advanced at the subject site. The coal ash primarily exists along the west and south sides of the subject site, and is estimated to be present at approximately 50 acres of the 80-acre site (reference **Figure 4a**). For the majority of this area, the coal ash has been observed at or near the existing ground surface. Some areas exhibit coal ash starting at greater depths below the ground surface. Observed depths of termination for the coal ash have ranged between 2 and 23 feet below ground surface. Based on the approximate acreage with coal ash material and an estimated mean depth of 15 feet, the volume of the coal ash material is estimated at 1.2 million cubic yards.

Soil impacted by apparent weathered petroleum was encountered in an isolated area near the central area of the subject site, east of the coal ash deposits (reference **Figure 2**). Field measurements during the October 2022 subsurface investigation indicate an affected area of approximately 250 feet by 90 feet. Depths of impacted soil were



consistently observed at 1 to 5 feet below ground surface, with the contamination confined by an underlying clay layer. The estimated volume of affected soil for this area is 3,300 cubic yards. **Figure 2** shows the general area of where this material is located.

**Figure 4a**, Aerial Extent of Landfill Material – Existing Conditions, shows the approximated extents of the landfill material. **Figure 5a**, Cross Section of Landfill Material - North-South - Existing Conditions, and **Figure 5b**, Cross Section of Landfill Material - East-West - Existing Conditions, provide a cross-sectional view of existing conditions that have been generally observed for the landfill material.

## 2.5 Soil Quality

Extensive subsurface soil investigation activities have been completed at the subject site. Between multiple geotechnical investigations and environmental investigations, borings, probes, or test pits have been advanced at over 90 locations to assess subsurface soil conditions and collect samples. The information presented in this section, and related data shown in the tables and figures attached with this report, are specific to grab soil samples collected from the areas with coal ash material and the area with the apparent weathered petroleum impact. Information pertaining to soil samples from other areas, and subsurface investigation data not specific to the characterization of the coal ash and weathered petroleum material, can be reviewed in the previously completed reports for the past environmental and geotechnical investigations.

*Draft Bergman Phase II Report (2017)* identifies 16 soil samples having been laboratory analyzed for metals and cyanide, with 12 of these samples comprised of the coal ash material and 4 samples comprised of other types of soil on-site. *ATL Soil Sampling Report (2022)* identifies 33 soil samples having been laboratory analyzed for one or more of the following: volatile organic compounds (VOC), semi-VOC, metals, pesticides, and polychlorinated biphenyls (PCB). Of these 33 samples, 19 were within the areas of coal ash, and 14 were at or near the soil impacted by the apparent weathered petroleum. *ATL Environmental Subsurface Investigation Report (2020)* included 22 soil samples analyzed for VOC and 11 soil samples analyzed for semi-VOC, metals, hexavalent chromium, cyanide, pesticides, and PCB. These samples were collected from soil material outside the coal ash, for the purpose of assessing contaminants relative to the potential for reuse as on-site fill.

**Table 1** – Soil Data provides a summary of the laboratory analysis results for soil samples collected from areas with coal ash and the locations at or near the area impacted with the apparent weathered petroleum. **Figure 3** – Site Plan with Sample Locations shows the approximate locations of borings where soil samples were collected. The aforementioned reports with soil sampling and analysis data can be referenced directly for laboratory analysis results pertaining to soil samples that were collected outside the areas of coal ash and weathered petroleum impact. Furthermore, *ATL SMP (2022)* in **Appendix D** discusses conditions pertinent to reuse of on-site soil as fill.

As indicated in **Table 1** – Soil Data, there were 19 soil samples within the coal ash area laboratory analyzed for semi-VOC, pesticides, and PCB. The semi-VOC and pesticides results were predominantly non-detect, with only a few detected target compounds. The detected compounds were below NYSDEC Unrestricted Use Soil Cleanup Objectives (SCO). PCB were detected in most of the samples, but at low levels below 0.1 ppm and not exceeding the NYSDEC Unrestricted Use SCO. There were 12 soil samples in the coal ash area laboratory analyzed for cyanide, with none reported at levels above the

laboratory method detection limit. The available results are not indicative of a concern for semi-VOC, pesticides, PCB, or cyanide within the coal ash material.

There were 31 soil samples within the coal ash area that were laboratory analyzed for metals. The following metals were detected in various soil samples at concentrations exceeding the NYSDEC Unrestricted Use SCO or the most restrictive of available standards for Supplemental Soil Cleanup Objectives (SSCO): aluminum, arsenic, barium, calcium, iron, mercury, nickel, selenium, silver, and vanadium. Of these metals, only arsenic and barium had reported concentrations above NYSDEC Commercial SCO. Arsenic also exhibited concentrations above the NYSDEC Industrial SCO. The available results for metals analysis in soil samples indicate that arsenic and barium would represent the primary contaminants of concern for the coal ash material. Elevated metals concentrations would be expected for this type of landfill material.

For the 14 soil samples at or near the soil impacted by the apparent weathered petroleum, 13 were laboratory analyzed for VOC, 5 were laboratory analyzed for PCB, 1 was laboratory analyzed for pesticides, and 11 were laboratory analyzed for semi-VOC and metals. Detected VOC were predominantly below NYSDEC Unrestricted Use SCO, other than acetone for 2 of the samples reported at slightly higher than the NYSDEC Unrestricted Use SCO. Similar to samples for the coal ash material, PCB were detected at low levels below 0.1 ppm and pesticides were predominantly non-detect. Various semi-VOC were detected for the samples at or near the area impacted by the apparent weathered petroleum, with one of the samples (sample collected from location and depth with the greatest field indicators of contaminants) having some target semi-VOC exceeding the NYSDEC Unrestricted Use SCO (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene). The benzo(a)pyrene concentration for this soil sample was also above the NYSDEC Commercial and Industrial SCO.

The metals analysis for 11 soil samples at or near the apparent weathered petroleum identified aluminum, calcium, iron, and vanadium at concentrations exceeding the NYSDEC Unrestricted Use SCO. None were above the NYSDEC Commercial and Industrial SCO. These soil samples did not exhibit elevated concentrations of arsenic, barium, or other metals consistently detected for the coal ash material samples.

The areas affected with the apparent weathered petroleum impact will be managed separately from the landfill reclamation work activities, through preparation of a remedial action work plan. No soil with petroleum contamination will be used for fill at the subject site.

## 2.6 Groundwater

Groundwater sampling and analysis data is available from sampling conducted by the NYSDEC in November 2020. A total of 6 monitoring wells were installed on the subject site and sampled for analysis of VOC, semi-VOC, per- and polyfluoroalkyl substances (PFAS), 1,4-dioxane, and metals, along with other general water quality parameters. **Table 2**, Groundwater Data, includes an excerpt directly from the *NYSDEC Groundwater Data (2020)* document and summarizes the analytical results for the groundwater samples collected from the 6 on-site monitoring wells in November 2020. An overview of the findings, with comparison to NYSDEC Class GA standards and guidance values (as listed in 6 NYCRR Part 703 and Technical and Operational Guidance Series (TOGS) 1.1.1) and

New York State maximum contaminant levels (MCL) (as listed in NYSDOH State Sanitary Code 10 NYCRR Part 5) is outlined below.

- The VOC analysis did not identify detectable concentrations of target compounds for 5 of the 6 monitoring wells. One of the monitoring wells had a detected concentration for 1,2-dichloroethane, estimated at 0.41 parts per billion (ppb). This is below the NYSDEC Class GA standards and guidance values.
- The semi-VOC analysis did not identify detectable concentrations of target compounds for any of the 6 monitoring wells.
- The PFAS analysis identified detected concentrations for perfluorooctanesulfonic acid (PFOS) in 1 of the 6 monitoring wells at concentrations of 33 ppb and 34 ppb (field duplicate sample), which exceed the New York State MCL of 10 ppb. Perfluorooctanoic acid (PFOA) was detected for 2 of the 6 monitoring wells, at concentrations below the New York State MCL of 10 ppb. Some of the other target compounds in the PFAS analysis were reported at estimated concentrations; however, there are no current standards or guidance values for comparison.
- The analysis for 1,4-dioxane identified detected concentrations in 4 of the 6 monitoring wells, ranging from 0.03 ppb (estimated) to 0.12 ppb. The reported concentrations are below the New York State MCL of 1 ppb.
- The metals analysis did not identify concentrations exceeding NYSDEC Class GA standards and guidance values for antimony, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, vanadium, zinc, or mercury. The metals analysis identified detected concentrations exceeding NYSDEC Class GA standards and guidance values for the following:
  - Arsenic in 1 of 6 monitoring wells (reported concentration of 167 ppb, compared to standard/guidance value of 25 ppb)
  - Barium in 1 of 6 monitoring wells (reported concentration of 1,770 ppb, compared to standard/guidance value of 1,000 ppb)
  - Boron in 2 of 6 monitoring wells (highest reported concentration of 1,460 ppb, compared to standard/guidance value of 1,000 ppb)
  - Iron in 5 of 6 monitoring wells (highest reported concentration of 172,000 ppb, compared to standard/guidance value of 300 ppb)
  - Magnesium in 3 of 6 monitoring wells (highest reported concentration of 55,800 ppb, compared to standard/guidance value of 35,000 ppb)
  - Manganese in 3 of 6 monitoring wells (highest reported concentration of 6,000 ppb, compared to standard/guidance value of 300 ppb)
  - Sodium in 5 of 6 monitoring wells (highest reported concentration of 164,000 ppb, compared to standard/guidance value of 20,000 ppb)

In addition to the groundwater samples collected through the NYSDEC in November 2020, *Draft Bergmann Phase II Report (2017)* included groundwater sampling and analysis data for 3 temporary monitoring wells. Groundwater samples from these wells were laboratory analyzed for metals, and detected concentrations were reported for aluminum, arsenic, barium, calcium, iron, magnesium, manganese, potassium, and sodium. Concentrations for iron, manganese, and sodium were higher than NYSDEC TOGS 1.1.1 standards/guidance values.

As described in Section 2.5, metals (most specifically arsenic and barium) represent the primary contaminants of concern for the coal ash material, based on the existing available soil sampling and analysis data. In general, arsenic and barium were not present at significantly high concentrations for groundwater samples that have been collected to

date, with only 1 of 9 collected groundwater samples showing a concentration of arsenic above standards/guidance values and 1 of 9 collected groundwater samples showing a concentration of barium above standards/guidance values. Long-term groundwater monitoring is not planned for the subject site at this time.

## **2.7 Soil Vapor**

Based on coal ash being the predominant landfill material present at the subject site, it is not expected that there would be a high risk or elevated potential for subsurface vapors or vapor migration from the subsurface environment. In order to confirm landfill gas does not represent a concern at the subject site, an assessment was performed in October 2022. The assessment included installation of 8 subsurface vapor sampling points in different areas of the site, to include 1 within the footprint of each of the 4 buildings planned for construction and 4 additional locations within or near previously defined limits of the waste ash materials. *ATL Soil Vapor Sampling Report (2022)* describes additional details of the soil vapor assessment. **Figure 3**, Site Plan with Sample Locations, shows the approximate locations of the installed soil vapor sampling points. **Table 3**, Soil Vapor Data, provides a summary of the data collected during the soil vapor assessment.

### **2.7.1 Methane**

As indicated in *ATL Soil Vapor Sampling Report (2022)*, methane analysis was included in the soil vapor assessment performed in October 2022. Field screening and vapor sampling and analysis for methane were completed for each of the 8 installed soil vapor sampling points. Methane was not detected for any of the 8 sampling locations, via the field screening and laboratory analysis. Based on the available data, methane monitoring and mitigation is not warranted for the reclamation and redevelopment activities at the site.

### **2.7.2 Volatile Organic Compounds**

As indicated in *ATL Soil Vapor Sampling Report (2022)*, VOC analysis was included in the soil vapor assessment performed in October 2022. Field screening and vapor sampling and analysis for VOC were completed for each of the 8 installed soil vapor sampling points. Field screening with a photoionization detector (PID) did not identify concentrations of VOC greater than 2 part per million (ppm). The laboratory analysis results did not identify any individual target VOC at a concentration exceeding 100 ug/m<sup>3</sup> for 7 of the 8 soil vapor sampling points. The other soil vapor sampling point identified higher VOC concentrations (notably ethanol at 47,100 ug/m<sup>3</sup>), and was located on the east side of the subject site, outside the area of the coal ash waste. While the source of the ethanol is not specifically known, it is not considered to be related to off-gassing from the coal ash material. Based on the available data, monitoring and mitigation for VOC from soil vapor is not warranted for the landfill reclamation activities at the site.

## **3.0 FEASIBILITY STUDY/RECLAMATION WORK PLAN**

Landfill reclamation work activities are planned to be performed in conjunction and in coordination with the proposed site construction for an expansion of the Port of Albany onto the Beacon Island site. In general, the proposed landfill reclamation work activities will include excavation of a portion of the landfill material (coal ash) and relocating this material to other areas on the subject site where coal ash already exists. The sole intent of this excavation and relocation is to remove material from locations that require cuts to

facilitate the necessary site grading pertinent to the planned site redevelopment. Additionally, the entirety of the areas with coal ash to remain will be covered with a site cap. Landfill reclamation work will progress pursuant to a construction schedule to be established between the site contractor and the owner.

Site cleanup and grading during and subsequent to landfill reclamation work will be completed as the work for the Port of Albany expansion project progresses from site preparation through building construction phases. A Site Plan is attached as **Figure 2**, to reference conditions pertinent to the site redevelopment and landfill reclamation. This Site Plan does not show specific details of the planned construction, as these are available on the approved plans and specifications for the construction project. The Port of Albany expansion project has been designed to incorporate tasks associated with the landfill reclamation, site cleanup, and site grading into the overall site construction plans. These plans have been authorized for construction, and can be referenced for details showing existing and final grades for the subject site. Furthermore, as-built drawings will be provided after completion of the construction project to show finished site conditions and grades.

In consideration of the landfill material being comprised of coal ash, recycling options are not applicable and potential reuse options are limited. As such, the option for relocation to other on-site areas with pre-existing coal ash is considered the most efficient and economically feasible option. Furthermore, this option does not require any further processing of waste materials aside from the excavation and movement with on-site construction equipment (i.e., front end loaders, bulldozers).

While a detailed cost analysis was not completed for the planned landfill reclamation work, it is clear that costs associated with excavation and off-site disposal would be significantly more than costs for maintaining the landfill material on the subject site. This is further reinforced by considering that a majority of the costs for maintaining on-site would be expended during the course of the planned construction project regardless.

With regard to benefits and impacts associated with the planned landfill reclamation, it is noted that the actions to be implemented for this site are not for the conventional purposes that would customarily be applicable to a landfill reclamation project. The subject site is an historical dumping area that has been inactive for over 50 years. The proposed Port of Albany expansion project intends to result in a beneficial use for a site that would otherwise continue to remain vacant and undeveloped. The benefits of pursuing landfill reclamation for this site include providing usable land for which the Port of Albany can expand their operations, at a site that will be adjacent to their existing operations to support offshore wind manufacturing. Maintaining the coal ash material on-site, as opposed to requiring transport and disposal at an alternative off-site facility, will avoid incurring significant additional costs to redevelop the site. Since coal ash material is pre-existing on the subject site, and the bulk of it would remain on-site regardless of the final disposition of coal ash that is to be excavated (with the excavation and relocation being the reasoning for designation as landfill reclamation), impacts are considered to be minimal. The landfill material would essentially remain in a similar condition as its current state, with the exception that there would no longer be coal ash at or near the ground surface and there will be a site operator committed to maintaining a site cap over the landfill material.

Cost factors for managing the coal ash under the proposed landfill reclamation activities and the benefits for allowing the subject site to be renewed usable land suggest that the

proposed landfill reclamation measures represent a positive alternative for managing the coal ash. Sections 3.2 through 3.8 provide additional details pertaining to implementation of the landfill reclamation, site controls, closure certification, and schedule. All information presented herein is consistent with construction plans that have been designed for the Port of Albany expansion project. This, combined with data that is available from prior investigations (reference Section 2), would indicate that the proposed landfill reclamation is feasible for the subject site.

### **3.1 Site Preparation**

Site preparation work for the construction project, and associated landfill reclamation activities, will include the following:

- All wooded areas on the property to be cleared and grubbed, with the exception of designated trees along the shoreline
- Approximately 0.81 acre of wetland area to be impacted at the northwest section of the site, with mitigation measures pursuant to the SWPPP
- Rail cars and rail line to be removed from the site
- Grading to include excavation at designated areas of cuts; however, majority of the site will receive fill
- Aggregate surcharging to be applied to footprints of each of the 4 buildings to be constructed, in addition to a utility crossing area
- Entrance driveway to be constructed on the south end of the west side of the site
- Erosion and sediment control to be implemented per SWPPP conditions
- Site stormwater management systems to be installed pursuant to SWPPP conditions
- A gated security fence to be installed around the site

All coal ash that needs to be excavated and relocated will be handled during this site preparation phase, as the entirety of the subject site needs to be graded to facilitate progression to the building and facility construction work. The handling and management of coal ash at the front end of the project will be beneficial, as there will be less workers on-site, less vehicular traffic, and less obstacles during the removal, transport, and covering of the coal ash materials.

#### **3.1.1 Stormwater Pollution Prevention Plan**

The *McFarland Johnson SWPPP (updated 2022)* is provided as **Appendix C**. This SWPPP can be referenced for details pertaining to how stormwater will be managed during construction activities, in addition to systems remaining in-place post-construction. The SWPPP was prepared, and the project was designed, to not permit stormwater infiltration for the portion of the site impacted with the coal ash material.

As described in the SWPP, site design for stormwater control includes 2 stormwater ponds (with clay liner), 7 manufactured stormwater filtering systems, 2 infiltration basins, and 2 dry swales. All infiltration basins will be outside the areas with coal ash. Runoff from the finished impervious areas (inclusive of surfaces that will be over the coal ash) will travel via sheet flow to one of 7 closed drainage networks. The drainage networks will be conveyed through a NYSDEC approved stormwater filtering system to provide water quality volume treatment prior to discharge into the Normans Kill or Hudson River.

### **3.1.2 Security**

At the time of landfill reclamation activities (i.e., during site construction work), access to the subject site will be limited to personnel directly involved with performance, monitoring, inspection, and oversight of the construction project. It is anticipated this will include contractors and subcontractors performing the construction work, representatives performing monitoring, sampling, and inspections, material/supply delivery representatives, construction management personnel, and owner's representatives. The site will be secured via construction of an 8-foot chain link security fence and lockable gates at entrances. Visitors to the site during the construction site activities will be required to check in on a daily basis. Areas where the coal ash is being excavated, transported, or otherwise handled will be restricted to authorized personnel only.

### **3.1.3 Permits**

The Port of Albany Expansion project, involving site redevelopment and construction work at the Beacon Island site, is subject to provisions of the following permits for activities affecting land and water resources.

- Permit Application for USACE Section 10 and 404 Permit (pending USACE Permit No. NAN-2021-00948-UDA)
- Permit Application for NYSDEC Protection of Waters, Part 182 Incidental Take Permit, Water Quality Certificate (pending NYSDEC Permit No. 4-0122-00322/00002)

While the aforementioned permits are primarily associated with mitigating impacts to wetland areas, waterways, and aquatic species/habitat, there are Best Management Practices (BMPs) relevant to work activities on land that would be inclusive of activities associated with the planned landfill reclamation. Specifically, the following BMPs are listed in the Joint Permit Application:

- For earthwork activities, the contract would stake out wetland boundaries in the field to avoid wetland areas not authorized to be impacted.
- Installation and maintenance of silt fencing and other erosion and sediment controls throughout the duration of construction activities and any subsequent soil disturbance activities near drainage and wetland areas.
- Installation of double-row or reinforced silt fencing along wetland areas for additional protection during construction
- Use of appropriate dust control methods during construction activities, such as water sprays.
- Stabilization of exposed soils following completion of construction activities in designated areas.
- Minimization (as practicable) of the amount of exposed soil at any given time during construction activities.
- Land clearing and grubbing will be performed in such a manner as to minimize damage outside the project footprint.
- Dispose of debris and solid waste generated by the project according to applicable federal, state, and local regulations.
- Stage and service construction equipment in designated upland areas.
- Perform construction vehicle maintenance and inspections to reduce the potential for incidental release of vehicle fluids.

- Maintain spill kits to rapidly respond to and limit impacts from accidental releases of vehicle fluids.

### 3.2 Disturbance of Landfill Materials

Of the approximately 50 acres of existing coal ash materials, it is estimated that approximately 4.86 acres of area with ash will need to be disturbed to achieve planned finish site grading. These removed materials will be relocated to a designated area (where coal ash already exists) of approximately 5.75 acres. This yields a total area of disturbance (inclusive of area of coal ash removals plus area receiving relocated coal ash) of approximately 10.61 acres. Reference **Figure 4a** for the locations where coal ash will be removed and where coal ash will be relocated to.

The disturbance of landfill materials will be performed pursuant to criteria described in the Soil Management Plan with monitoring pursuant to the CAMP. Conditions of the Soil Management Plan and CAMP are discussed further in of landfill materials.

**Figure 4b** shows proposed conditions for the landfill material, for which the aerial extent will be generally consistent with the existing conditions (as shown on **Figure 4a**). The cross-sections of the landfill material for proposed conditions (reference **Figures 5b and 6b**) will be generally consistent with the existing conditions (reference **Figures 5a and 6a**), with the exception of certain areas being removed and relocated to other areas where the coal ash already exists and the installation of a site cap (reference Section 3.3). Locations to receive relocated ash will be outside the footprint of buildings to be constructed at the site. The landfill material will be within a singular contiguous area of the site, without any deliberate separation, placement of landfill material at discrete areas, or special waste disposal areas.

### 3.3 Site Cap

Areas of the site where coal ash is to remain, and where portions of coal ash will be relocated to (areas where coal ash already exists), will receive a minimum of 2 feet of suitable cover material to serve as a cap for the landfill material. As specified in *ATL SMP (2022)*, the following criteria will be applicable to the soil cover system.

- A minimum of 2 feet of soil cover will be placed above the ash material. This is consistent with NYSDOH regulations that were applicable to landfill closure at the time when the landfill ceased placing waste at the site (prior to 1970).
- The upper 6 inches of the soil cover will be suitable to sustain growth of appropriate vegetation at the ground surface in areas that will not be covered with impervious surfaces. (*Note: For this site, some coal ash areas will have an impervious material at the surface, rendering this condition non-applicable.*)
- Certain areas of the subject site will have buildings, pavement, and concrete pads that will serve as an additional layer of site cap.
- The upper 2 feet of the soil cover will not have concentrations of contaminants that exceed the Restricted Residential SCO set forth in 6 NYCRR Part 375-6.
- Imported fill that is placed at a depth below the upper 2 feet of soil cover will not have concentrations of contaminants that exceed the Commercial SCO set forth in 6 NYCRR Part 375-6.
- A demarcation layer will be provided between the soil cover layer and underlying impacted soil, unless approval is obtained from the NYSDEC to forego installation of a demarcation layer. Subsequent to site grading, and prior to



placement of imported material for the site cap, a filter fabric will be placed to provide separation of these layers and will serve as the demarcation layer.

- In the event that the soil cover system is breached, penetrated, or temporarily removed, restoration to original conditions (or equivalent) will be performed.
- Areas with a soil cover will be inspected at least annually, to assess existing conditions and determine if any restoration or repairs are necessary. Inspections will also be performed after severe weather events or significant site operations that may have adversely affected the soil cover system

**Figure 7, Site Cap**, shows details that pertain to the soil cover/site cap system. The site cap, inclusive of building slabs, pavement, and stormwater systems will result in the site being mostly impervious. Stormwater, as compared to existing conditions, will be significantly reduced. With these site improvements, the capped site will allow for materially improved groundwater quality.

### 3.4 Soil Management Plan

*ATL SMP (2022)* was prepared to address areas at the subject site that are impacted with ash material and related debris, in addition to describing methods that can be used for the handling and management of areas impacted by petroleum/chemical spills, if encountered during site redevelopment activities. The *ATL SMP (2022)* summarizes procedures to implement for excavation activities, installation of a soil cover system, and management of waste soil. Additional descriptions of SMP components, which are pertinent to this Landfill Reclamation Work Plan, are provided in the following sections. The project SMP is included as **Appendix D**.

#### 3.4.1 Earthwork

The majority of earthwork scheduled for the site redevelopment will include placement of fill material to provide suitable cover for the existing coal ash, grade the site, and surcharge the building areas. A portion of the site (approximately 4.86 acres) will require removal of coal ash material and relocation (via movement with on-site construction equipment) to an area with existing coal ash. The area to receive relocated coal ash is approximately 5.75 acres. The volume of coal ash to be relocated is estimated at 15,660 cubic yards.

**Figure 4a, Aerial Extent of Landfill Material – Existing Conditions**, shows the approximate extent of existing coal ash material, along with areas where coal ash material will require removal for relocation. **Figure 4b, Aerial Extent of Landfill Material – Proposed Conditions**, shows the approximate extents of coal ash that will remain (with site cap) after construction, in addition to the locations where coal ash is planned to be relocated to. The areas to receive relocated coal ash have existing coal ash material at or near the surface.

Earthwork throughout the subject site is planned as the initial phase of the project. Site redevelopment plans include excavations, grading, and fill placement to occur at the onset of the project, followed by all construction for proposed buildings, parking and roadways, utilities, and site construction. Earthwork related to landfill operations will include removal of coal ash from designated areas and relocation to other areas with pre-existing coal ash, and placement of suitable cover over the entirety of the areas with coal ash to remain. Sequencing, scheduling, and coordination of coal ash removal will be performed to ensure that open faces of excavations and surfaces of relocated coal ash are covered on a daily basis. A cover over all exposed coal ash will occur at end of each day. The cover

material will consist of either a standard stabilization measure outlined in the SWPPP such as straw bale mulch, wood chips/mulch or a tarp. In general, the proper cover material will be in place to ensure the coal ash is covered at the end of each day to prevent migration.

Reference the SMP in **Appendix D** for further details on the soil management measures.

### **3.4.2 Staging Procedures**

Coal ash that needs to be removed and relocated will be handled via on-site construction equipment and transferred directly to the locations of final disposition. These work methods will eliminate the need to stage areas for stockpiles of the coal ash and avoid extraneous handling of excavated coal ash.

There are designated areas for storage and staging of equipment, materials, and supplies during the site construction work activities and landfill reclamation activities. These areas have been identified in construction plans prepared for the Port of Albany expansion project. In consideration of the size of the subject site, and work activities during landfill reclamation to be limited to the site contractor and their subcontractors, the designated staging and storage areas will be sufficient to accommodate the work required for the landfill reclamation.

### **3.4.3 Importation**

*ATL SMP (2022)* includes conditions for imported fill, for use as the upper 2 feet of soil cover system or for other areas requiring specific types of fill material. As indicated in the SMP, imported soil should be sampled and analyzed prior to delivery to the site, to confirm the material satisfies criteria established for use as a soil cover or criteria for use as general fill, restricted use fill, or limited use fill per 6 NYCRR Part 360.13.

In addition to imported fill, on-site material from areas of cuts will also be reused for fill, provided the material satisfies pertinent criteria in 6 NYCRR Part 360.13 and/or the site cover criteria, depending on intended usage.

### **3.4.4 Dust Control**

Dust control during site excavation, grading, and construction activities will be critical to reduce potential exposures to airborne hazards during the handling and management of on-site coal ash materials. Air monitoring will be conducted as part of a project-specific CAMP, as referenced in Section 3.4.5. In the event that there are exceedances to air monitoring limits established for the project, it will be required that work activities are temporarily ceased and dust suppression techniques implemented. Common dust suppression techniques that may be used include the following:

- Applying water on haul roads
- Wetting equipment and excavation faces
- Spraying water on buckets during excavation and dumping
- Hauling materials in properly tarped or watertight containers
- Restricting vehicle speeds to 10 mph
- Covering excavated areas and material after excavation activity ceases
- Reducing excavation size and/or number of excavations

The specific dust suppression technique to be implemented will be dependent on field observations and evaluation as to the means and methods that may be most successful. The SWPPP, included as **Appendix C**, SMP, included as **Appendix D**, and CAMP, included as **Appendix E** further address dust control and air monitoring requirements for the project.

#### **3.4.5 Community Air Monitoring Plan**

A Community Air Monitoring Plan (CAMP) will be in-place during all site work activities that result in ground disturbance. *Watson CAMP (2022)* was developed in coordination with the NYSDOH to establish requisite procedures for air monitoring during construction, evaluation of data, and appropriate mitigation measures. The project CAMP is included as **Appendix E**.

#### **3.4.6 Work Zone Air Monitoring**

Work zone air monitoring will be performed pursuant to criteria established in the *Watson CAMP (2022)*. The CAMP will be in effect for all ground intrusive construction activities on the subject site, from the start of mass excavation through completion of the site preparation contract. At the completion of this contract work, there will be no further disturbance of coal ash necessary to complete the planned construction and site redevelopment work.

Air monitoring data and work activity observations that are generated through implementation of the CAMP will be evaluated and used to verify that fugitive dust and potential vapors remain under control throughout the duration of ground disturbance work (inclusive of landfill reclamation activities), and to identify situations where work procedures may need to be modified in order to maintain satisfactory conditions.

### **3.5 Decommissioning of Monitoring Wells**

As indicated in Section 2.6, there are 6 existing on-site monitoring wells that were sampled in November 2020, with groundwater samples laboratory analyzed for VOC, semi-VOC, PFAS, 1,4-dioxane, metals, and other general water quality parameters. The laboratory analysis results for the collected groundwater samples did not identify VOC, semi-VOC, or 1,4-dioxane at concentrations exceeding current standards or guidance values. There was 1 monitor well with slightly elevated PFOS. Concentrations of certain metals were also detected at levels above standards and guidance values, but are not indicative of significant impacts from existing conditions.

The limited exceedances on certain target compounds, and the types of compounds with exceedances, in the groundwater samples is not expected to represent a significant concern to warrant long-term groundwater monitoring at the subject site. The site cap, stormwater controls, and other site improvements will result in the site being mostly impervious, with stormwater significantly reduced as compared to existing conditions. The capped site will allow for materially improved groundwater and reduce the potential for adverse impacts from leachate.

With regard to existing on-site monitoring wells, the planned redevelopment and site construction work are not conducive to maintaining these monitoring wells in a stable condition for future use. It is proposed that the existing on-site monitoring wells be decommissioned during the site redevelopment work. No installation of additional monitoring wells is planned at this time.

### **3.6 Stormwater and Leachate Management**

As indicated in Section 3.1.1, the area with coal ash to remain will be finished with impervious surfaces and stormwater runoff will travel via surface sheet flow to closed drainage networks that ultimately discharge into the Normans Kill or Hudson River. The installation of a site cap (reference Section 3.3) and placement of impervious material over the areas where coal ash is to remain and the diversion of stormwater away from these materials will, in effect, provide a control measure to reduce the potential for adverse impacts from leachate.

### **3.7 Closure Certification Report**

Subsequent to completion of site redevelopment, whereby the site cap has been placed throughout the affected areas effectively rendering reclamation/closure of the former landfill, a closure certification report will be prepared and submitted to the NYSDEC. The closure certification report will include information and details pertaining to the landfill closure methods, summary of notable observations during closure activities, as-built plans and other pertinent drawings for the redeveloped site, and conditions for long-term maintenance and monitoring, if deemed applicable. Additionally, per 6 NYCRR Part 360.21, an annual report will be submitted to the NYSDEC within 30 days after receiving the final quantity of wastes. For purposes of this facility being subject to landfill reclamation and requiring a site cap, and unless otherwise directed by the NYSDEC, "receiving the final quantity of wastes" will be inferred to represent completion of work activities associated with the installation of the site cap. Unless otherwise specified by the NYSDEC, the closure certification report will be submitted within 90 days subsequent to completion of site cap construction work.

### **3.8 Schedule**

Site construction activities are scheduled to commence by November 7, 2022. The initial phase of the project will include site clearing and regrading, with the excavation and relocation of coal ash to occur during this time. Placement of fill and site cap will also be initiated during this phase, and continue through to completion of full site grading to achieve ground elevations desired for subsequent construction. An annual report for the landfill registration and closure certification will be prepared subsequent to this work, as detailed in Section 3.7.

## FIGURES

- Figure 1 – Site Location Map (with attachments to show zoning)***
- Figure 2 – Site Plan***
- Figure 3 – Site Plan with Sample Locations***
- Figure 4a – Aerial Extent of Landfill Material – Existing Conditions***
- Figure 4b – Aerial Extent of Landfill Material – Proposed Conditions***
- Figure 5a – Cross Section of Landfill Material – North-South – Existing Conditions***
- Figure 5b – Cross Section of Landfill Material – East-West – Existing Conditions***
- Figure 6a – Cross Section of Landfill Material – North-South – Proposed Conditions***
- Figure 6b – Cross Section of Landfill Material – East-West – Proposed Conditions***
- Figure 7 – Site Cap***

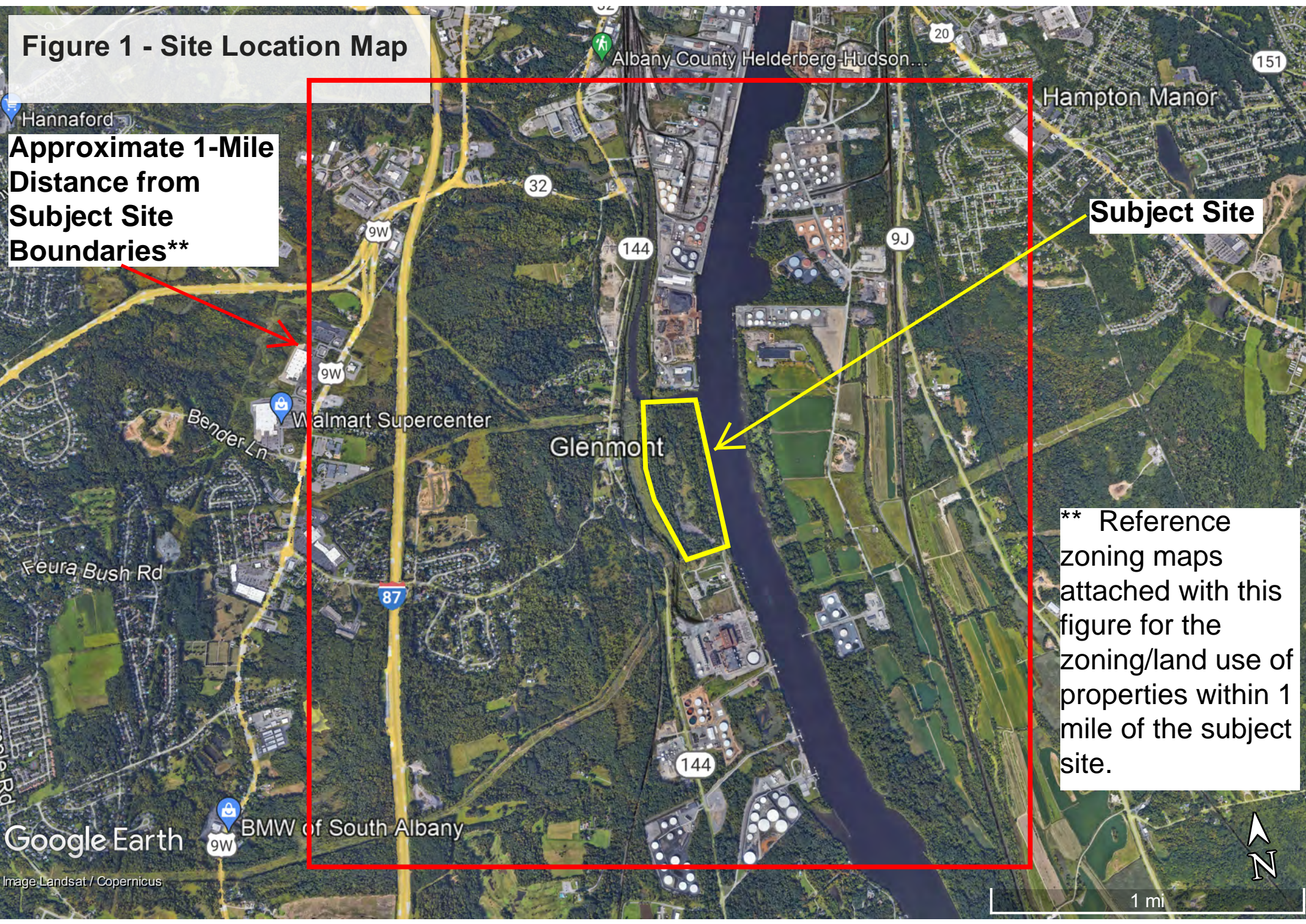


# Figure 1 - Site Location Map

Approximate 1-Mile Distance from Subject Site Boundaries\*\*

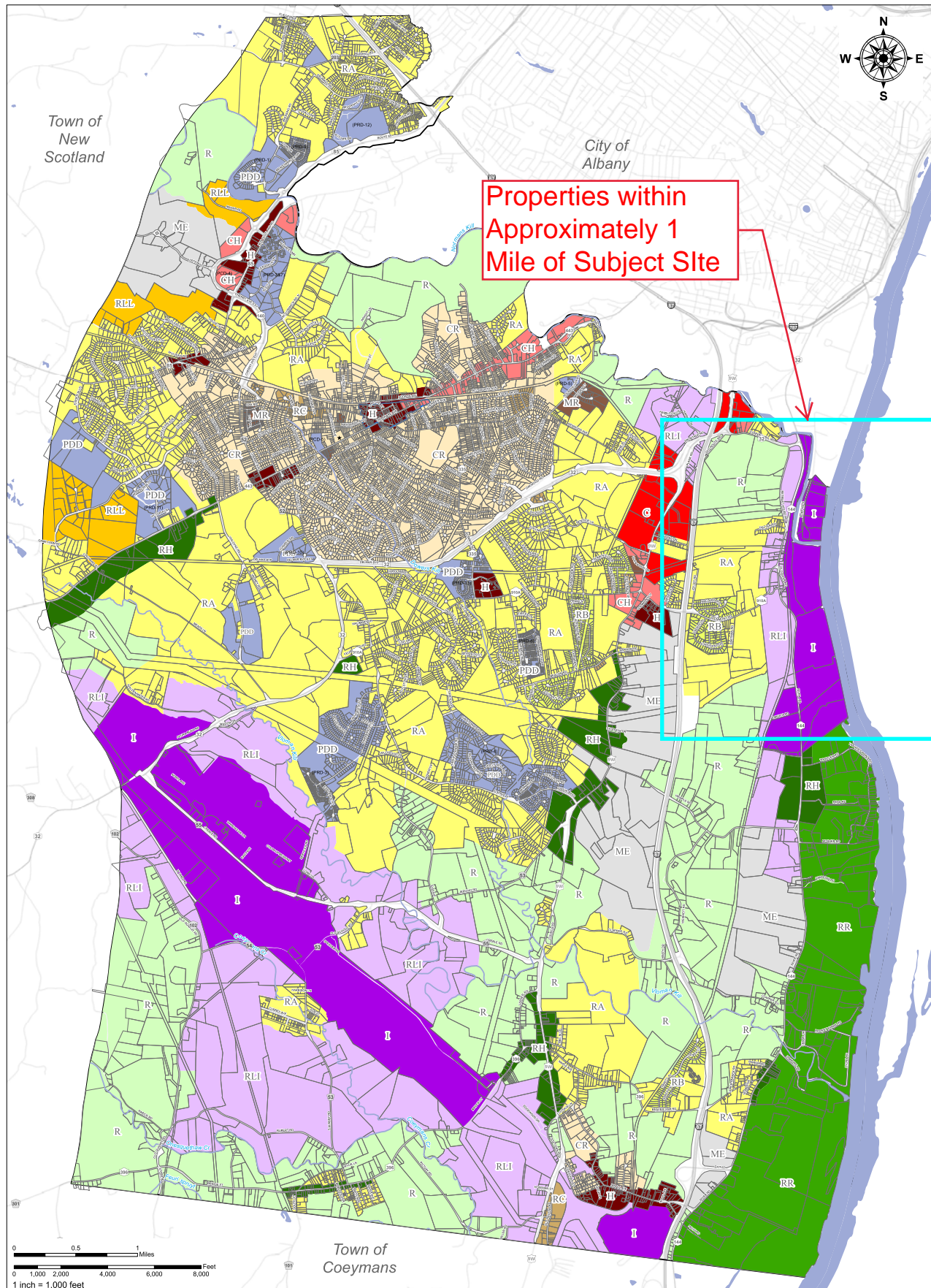
Subject Site

\*\* Reference zoning maps attached with this figure for the zoning/land use of properties within 1 mile of the subject site.





# Zoning Map of the Town of Bethlehem, New York



Properties within  
Approximately 1  
Mile of Subject Site

0 0.5 1 Miles  
0 1,000 2,000 4,000 6,000 8,000 Feet  
1 inch = 1,000 feet

Effective August 24, 2005  
Amended September 1, 2006  
Amended October 17, 2008  
Amended June 23, 2010  
Amended July 1, 2013  
Amended March 23, 2015  
Amended April 27, 2016

\* (PRD-#): FORMER ZONING CLASSIFICATION

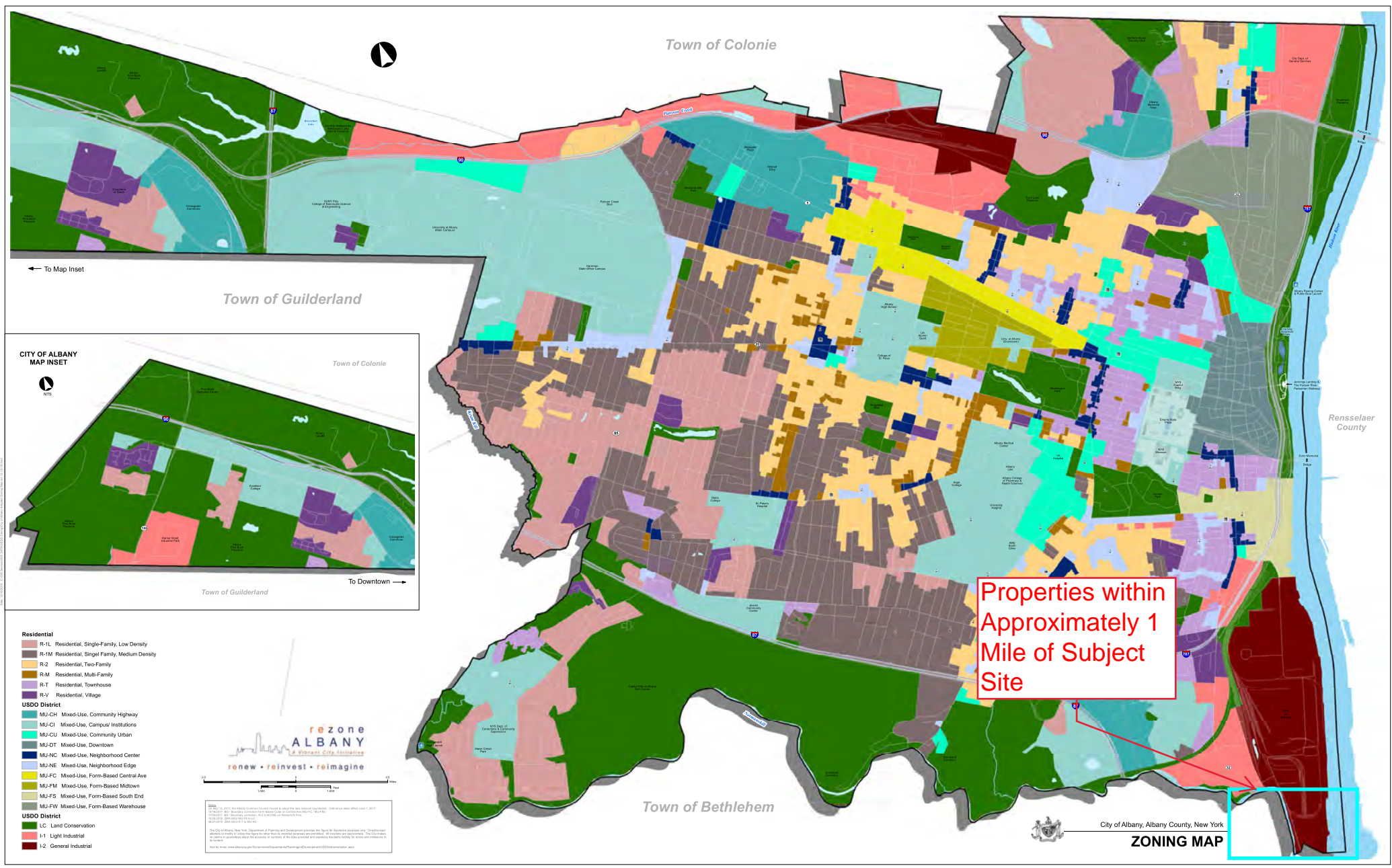


This map is computer generated using data from the Town of Bethlehem, New York and is intended only for reference, planning and presentation purposes. Documentation of data sources, specifications and limitations are available upon request from the Town GIS Coordinator. This map is not intended for, and should not be used for, establishing boundaries, property lines, location of objects or to provide any other information typically needed for construction of any other purpose when engineering plans or land surveys are required.

Legend	
Zoning: 2016 by Local Law #2	RESIDENTIAL A (RA)
COMMERCIAL HAMLET (CH)	RESIDENTIAL B (RB)
CORE RESIDENTIAL (CR)	RESIDENTIAL C (RC)
GENERAL COMMERCIAL (C)	RESIDENTIAL LARGE LOT (RL)
HAMLET (H)	RURAL (R)
HEAVY INDUSTRIAL (I)	RURAL HAMLET (RH)
MIXED ECONOMIC DEVELOPMENT (ME)	RURAL LIGHT INDUSTRIAL (RLI)
MULTI-FAMILY (MR)	RURAL RIVERFRONT (RR)
PLANNED DEVELOPMENT DISTRICT (PDD)	DELAWARE AVE HAMLET OVERLAY (DAH)

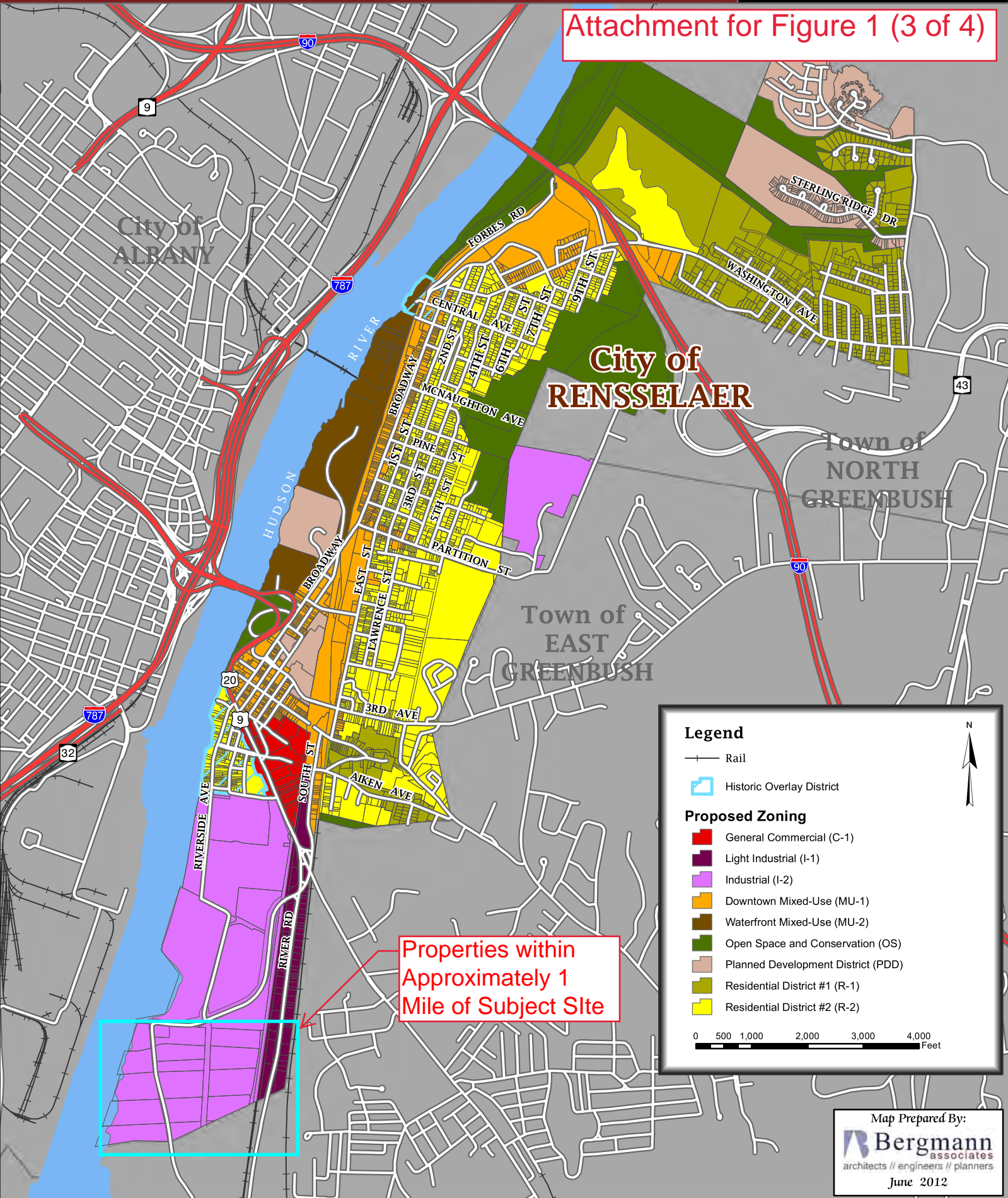
Document Path: E:\projects\1811\1811\GIS\Output\Zoning\_Map\_27Apr2016\_by\_LIZ.mxd







Attachment for Figure 1 (3 of 4)



**Legend**

- Rail
- Historic Overlay District
- Proposed Zoning**
- General Commercial (C-1)
- Light Industrial (I-1)
- Industrial (I-2)
- Downtown Mixed-Use (MU-1)
- Waterfront Mixed-Use (MU-2)
- Open Space and Conservation (OS)
- Planned Development District (PDD)
- Residential District #1 (R-1)
- Residential District #2 (R-2)

0 500 1,000 2,000 3,000 4,000 Feet

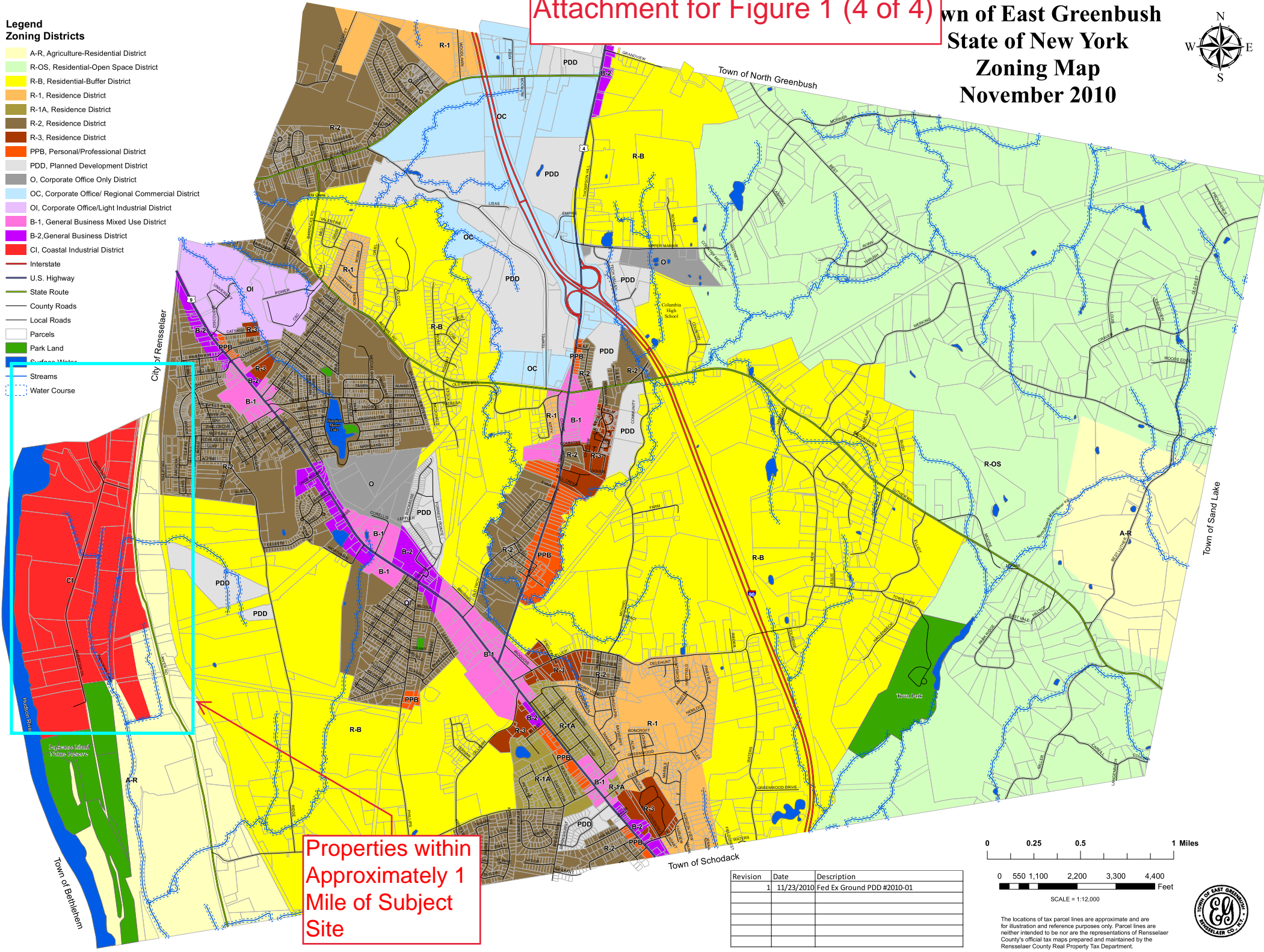
Map Prepared By:





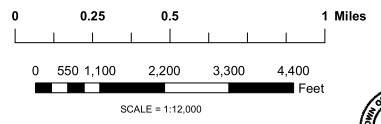
**Legend**  
**Zoning Districts**

- A-R, Agriculture-Residential District
  - R-OS, Residential-Open Space District
  - R-B, Residential-Buffer District
  - R-1, Residence District
  - R-1A, Residence District
  - R-2, Residence District
  - R-3, Residence District
  - PPB, Personal/Professional District
  - PDD, Planned Development District
  - O, Corporate Office Only District
  - OC, Corporate Office/ Regional Commercial District
  - OI, Corporate Office/Light Industrial District
  - B-1, General Business Mixed Use District
  - B-2, General Business District
  - CI, Coastal Industrial District
- 
- Interstate
  - U.S. Highway
  - State Route
  - County Roads
  - Local Roads
  - Parcels
  - Park Land
  - Surface Water
  - Streams
  - Water Course



Properties within  
 Approximately 1  
 Mile of Subject  
 Site

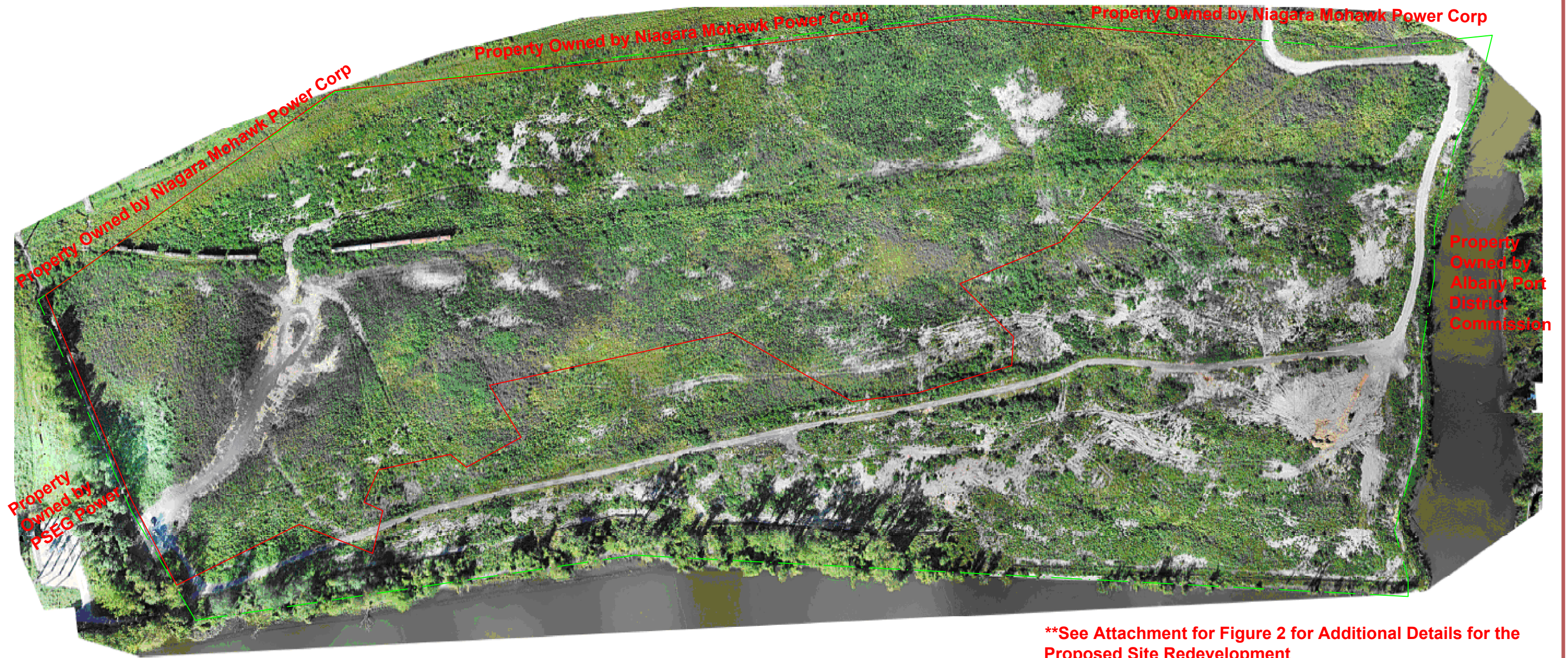
Revision	Date	Description
1	11/23/2010	Fed Ex Ground PDD #2010-01



The locations of tax parcel lines are approximate and are for illustration and reference purposes only. Parcel lines are neither intended to be nor are the representations of Rensselaer County's official tax maps prepared and maintained by the Rensselaer County Real Property Tax Department.








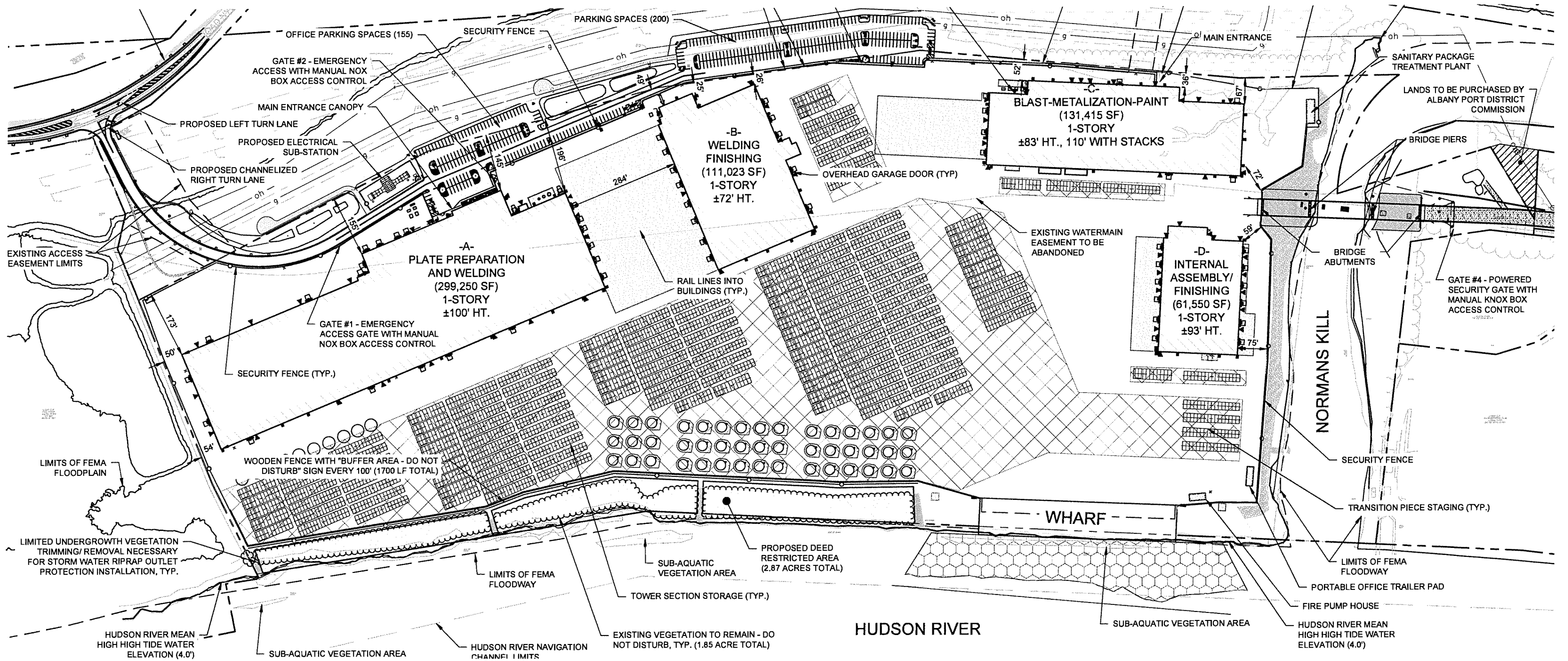
**\*\*See Attachment for Figure 2 for Additional Details for the Proposed Site Redevelopment**

**LEGEND :**

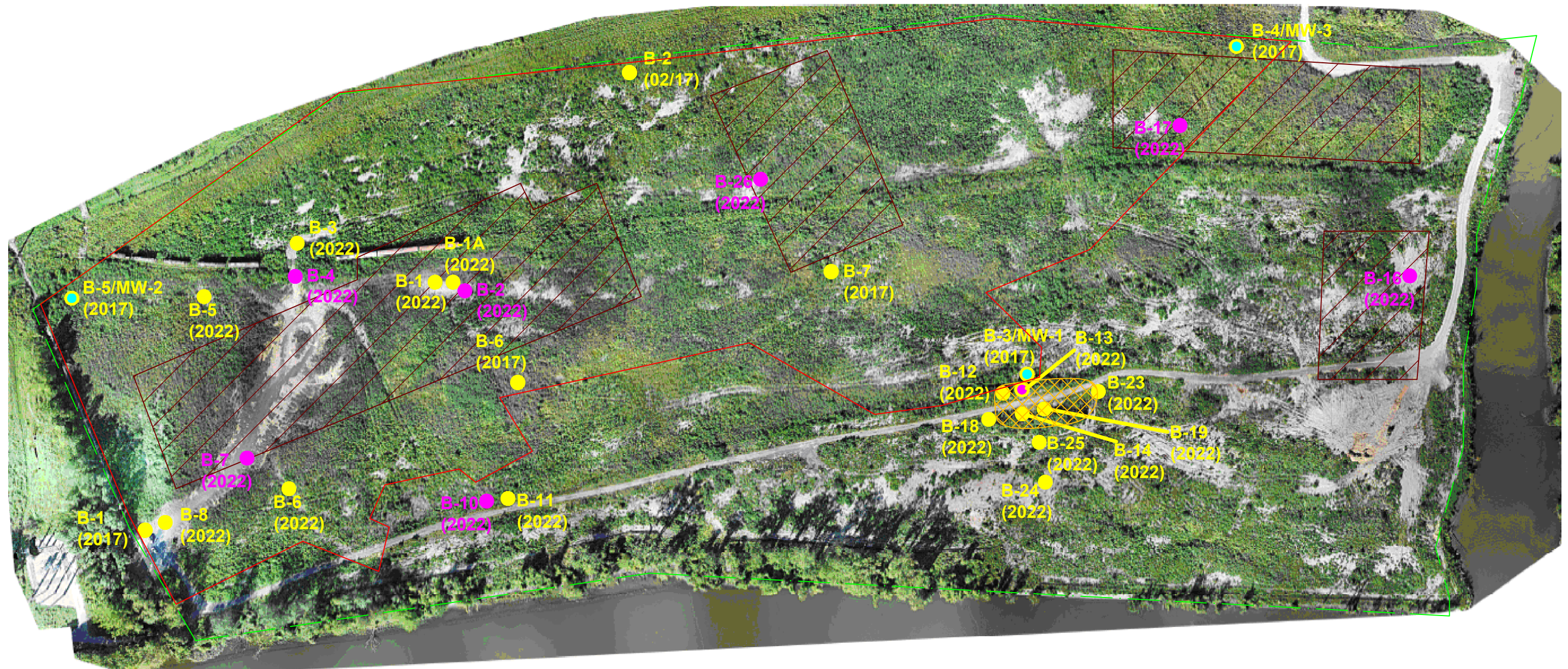
- - - - - Approximate Property Boundary
- - - - - Approximate Extents of Area with Coal Ash

<b>SITE PLAN</b>	Drawn By: CJD	Drawing: Figure 2	Scale: As Noted	Project No.: AT5596	Date : October 2022
Beacon Island Parcel Bethlehem, Albany County, New York	 <b>ATLANTIC TESTING LABORATORIES, Limited</b> Albany, NY Binghamton, NY Canton, NY Elmira, NY Poughkeepsie, NY Plattsburgh, NY Rochester, NY Syracuse, NY Utica, NY Watertown, NY <small>WBE Certified Company www.AtlanticTesting.com</small>				









**LEGEND :**

- B-2 (2017)**      Approximate Location of Previous Boring with Soil Sample(s) Collected
  
- B-3/MW-1 (2017)**      Approximate Location of Previous Boring with Soil and Groundwater Samples Collected
  
- B-13 (2022)**      Approximate Location of Previous Boring with Soil and Vapor Samples Collected
  
- B-16 (2022)**      Approximate Location of Previous Boring with Vapor Sample Collected
  
- Approximate Property Boundary
  
- Approximate Extents of Area with Coal Ash
  
- Approximate Extents of Area with Weathered Petroleum
  
- Approximate Footprint of Proposed Building

<b>SITE PLAN WITH SAMPLE LOCATIONS</b>	Drawn By: CJD	Drawing: Figure 3	Scale: As Noted	Project No.: AT5596	Date : October 2022
--	------------------	----------------------	--------------------	------------------------	------------------------

*Beacon Island Parcel  
Bethlehem, Albany County, New York*




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**LEGEND :**

 Approximate Aerial Extents of Coal Ash Material

**AERIAL EXTENT OF LANDFILL  
MATERIAL - EXISTING CONDITIONS**

Drawn By:  
CJD

Drawing:  
Fig. 4a

Scale:  
As Noted

Project No.:  
AT5596

Date :  
October 2022

*Beacon Island Parcel  
Bethlehem, Albany County, New York*



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**Figure 4b - Aerial Extent of Landfill Material - Proposed Conditions**  
 Port of Albany - Beacon Island Site



**McFarland Johnson**  
 60 RAILROAD PLACE  
 SUITE 402  
 SARATOGA SPRINGS, NEW YORK 12866  
 P: 518-580-9380 F: 518-580-9383  
 SaratogaROM@mjin.com

PROJECT MILESTONE  
**BID PLANS**

NO.	DATE	DESCRIPTION

CLIENT: **ALBANY PORT DISTRICT COMMISSION**  
 ALBANY, NEW YORK  
 PROJECT: **PORT EXPANSION SITE - SITE PREPARATION**

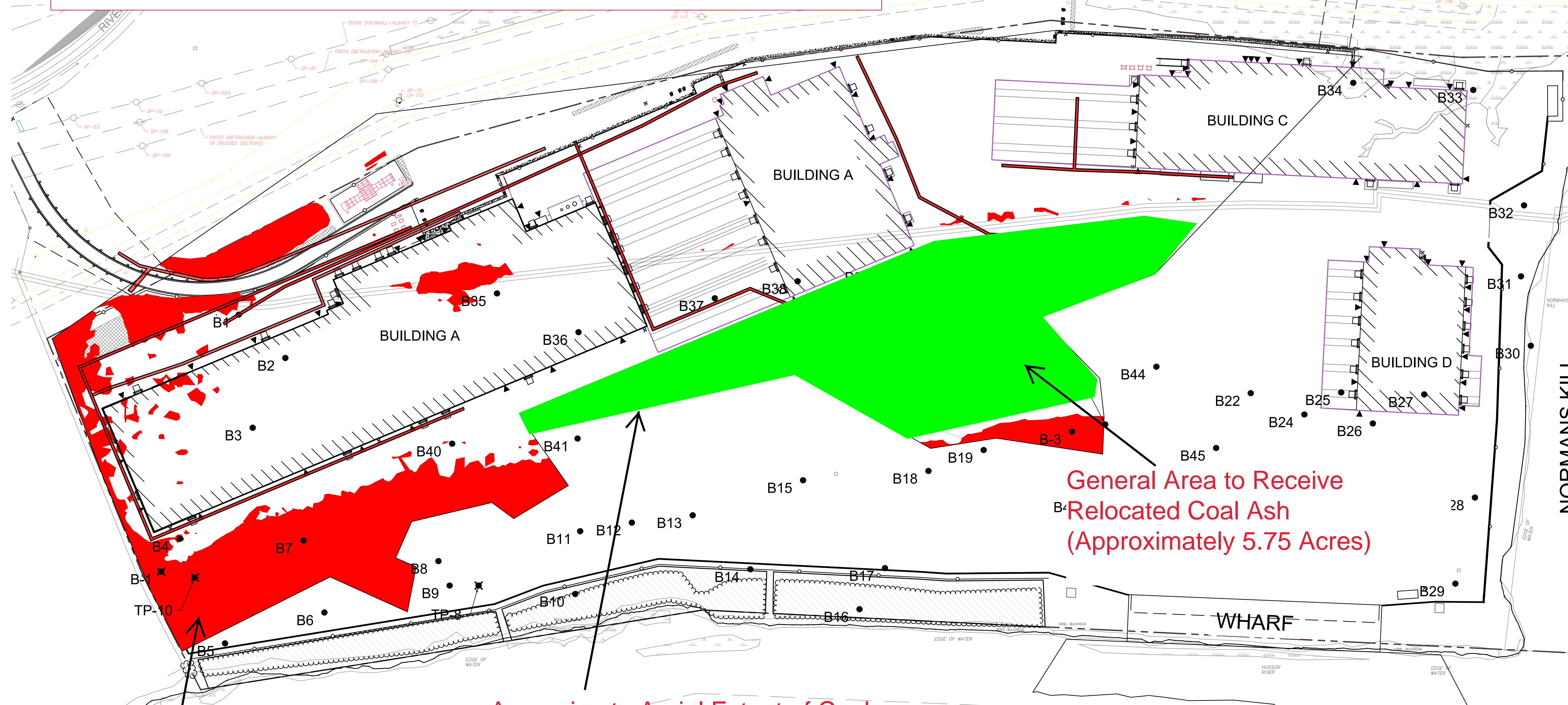
DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	APRIL 2022
PROJECT	18641.00

CONCEPTUAL  
 FIGURE  
 NOT FOR  
 CONSTRUCTION

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE  
**APPROXIMATE LIMITS OF IMPACTED COAL ASH PLAN**

DRAWING NUMBER  
**GR-01**  
 OF



Approximate Extents of Coal Ash where a Portion will be Excavated and Relocated

Approximate Aerial Extent of Coal Ash with Minimum 2 Feet Suitable Cover (generally consistent with existing aerial extents, with no increase in footprint of coal ash)

LEGEND  
 APPROXIMATE LIMITS OF IMPACTED COAL ASH. 4.86± AC (211,707± SF.) 15,660± CU. YD.

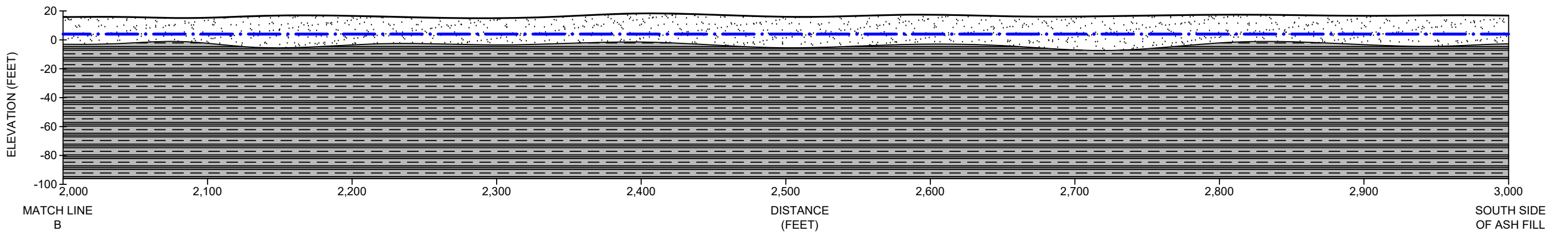
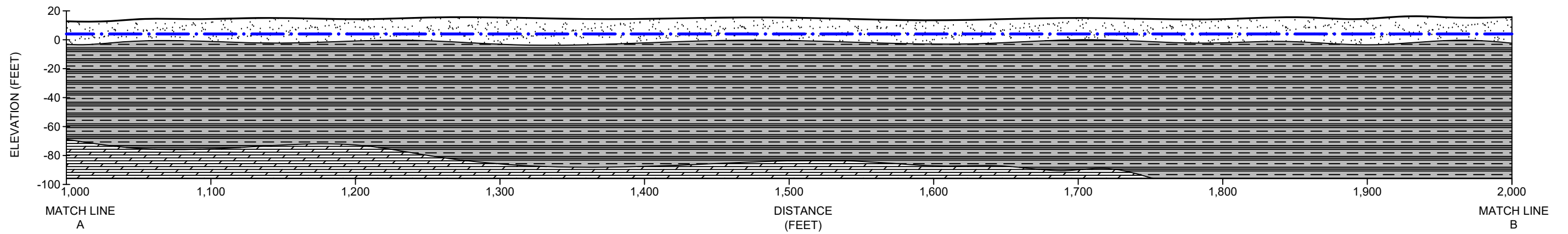
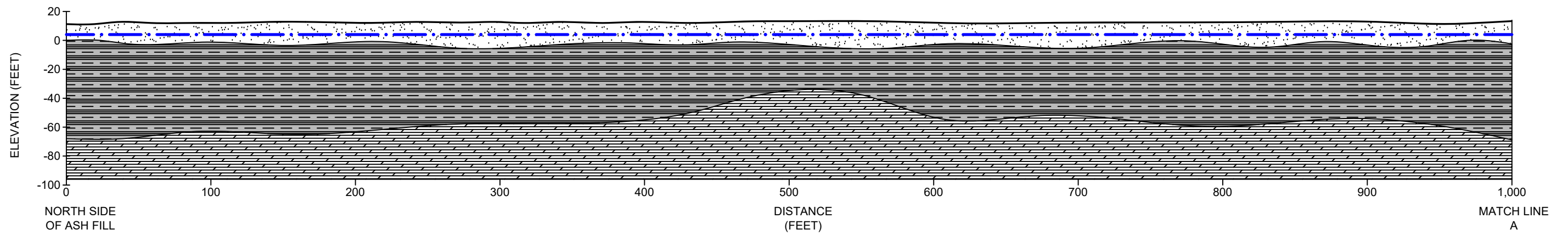
GRADING NOTES:  
 1. THIS SHOWS THE COMPARISON OF THE FINISHED GRADE MINUS 48" TO THE EXISTING GRADE.

<b>LEGEND</b>		<b>PROPOSED BUILDING FOOTPRINT</b>	
PROPERTY LINE		MATERIAL STORAGE AREAS	
EASEMENT LIMITS		WETLAND AREA	
DITCH CENTERLINE		WHARF DREDGING AREA	
ROADSIDE SWALE		PAVEMENT AREA	
BUILDING SETBACK		CONCRETE AREA	
OVERHEAD DOORS		RIP-RAP WATER EMBANKMENT STABILIZATION	
MAN DOORS		PROPOSED DEED RESTRICTED AREA	
EXISTING BUILDING			


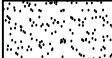
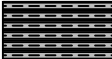
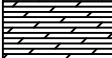



X:\18641\05 ALBANY PORT EXPANSION\DRAWINGS\BIDDING\BID PLAN\48 INCHES\06.30.2022.DWG






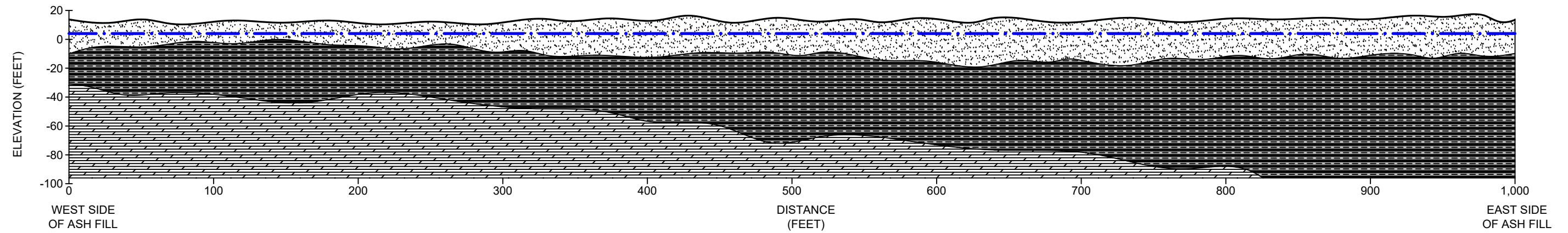
**LEGEND FOR SUBSURFACE STRATA**

-  Topsoil Layer (generally encountered at 0 to 0.5 feet thickness)
-  Ash Layer (generally encountered at 3 to 29 feet thickness, with mean thickness estimated at 12 to 17 feet)
-  Clay/Silt/Sand Layers (native soil layers for which ash was placed over)
-  Bedrock (generally encountered at 45 -159 feet below ground surface and sloping from west to east)
-  Groundwater (estimated to be at or near the mean high water level for Hudson River/Normanskill Creek of 4 feet)

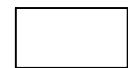


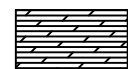

NOTE: DETAILS ON THIS DRAWING ARE PROVIDED AS A GENERAL OVERVIEW OF SUBSURFACE STRATA AT THE SITE. THIS CROSS SECTION VIEW IS NOT INTENDED TO SHOW AN EXACT REPRESENTATION OF SUBSURFACE PROFILE AND DEPTHS OF SUBSURFACE STRATA.

<b>CROSS SECTION OF LANDFILL MATERIAL NORTH-SOUTH - EXISTING CONDITIONS</b>	Drawn By:	Drawing:	Scale:	Project No.:	Date :
	CJD	Figure 5a	As Noted	AT5596	October 2022
<b>Beacon Island Parcel</b> Bethlehem, Albany County, New York		 <b>ATLANTIC TESTING LABORATORIES, Limited</b> Albany, NY Binghamton, NY Canton, NY Elmira, NY Poughkeepsie, NY Plattsburgh, NY Rochester, NY Syracuse, NY Utica, NY Watertown, NY <small>WBE Certified Company www.AtlanticTesting.com</small>			




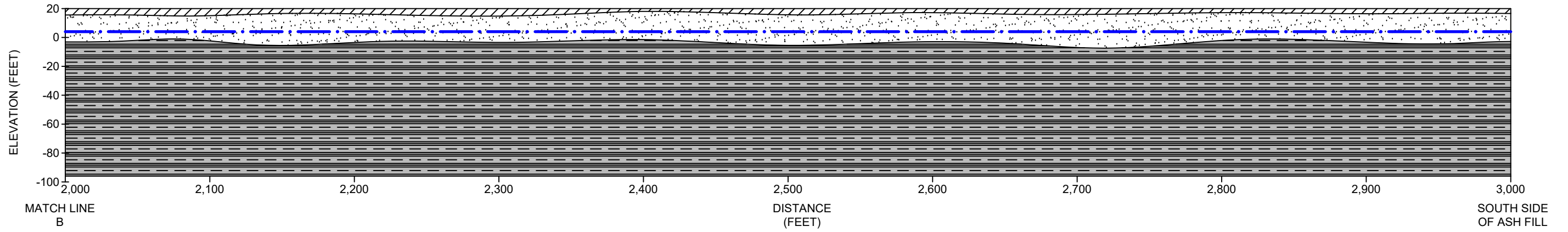
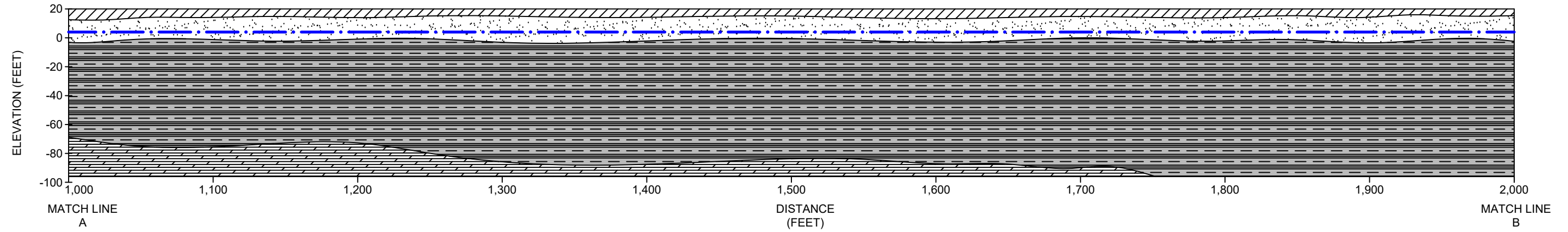
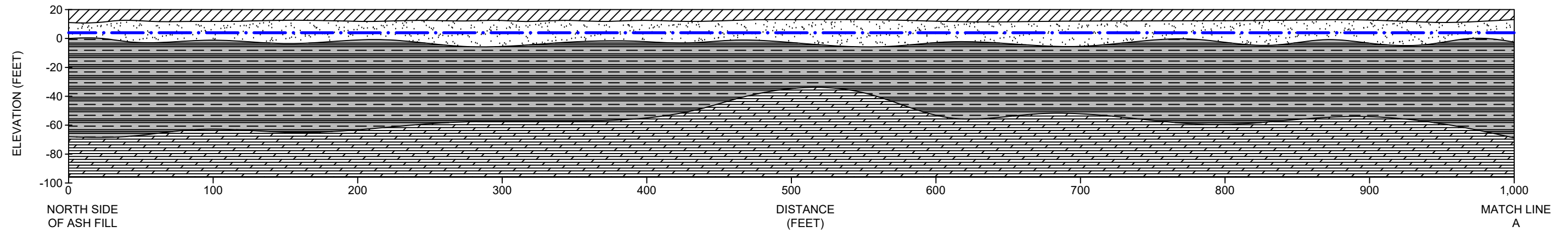


**LEGEND FOR SUBSURFACE STRATA**



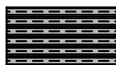


-  Topsoil Layer (generally encountered at 0 to 0.5 feet thickness)
-  Ash Layer (generally encountered at 3 to 29 feet thickness, with mean thickness estimated at 12 to 17 feet)
-  Clay/Silt/Sand Layers (native soil layers for which ash was placed over)
-  Bedrock (generally encountered at 45 - 159 feet below ground surface and sloping from west to east)
-  Groundwater (estimated to be at or near the mean high water level for Hudson River/Normanskill Creek of 4 feet)

NOTE: DETAILS ON THIS DRAWING ARE PROVIDED AS A GENERAL OVERVIEW OF SUBSURFACE STRATA AT THE SITE. THIS CROSS SECTION VIEW IS NOT INTENDED TO SHOW AN EXACT REPRESENTATION OF SUBSURFACE PROFILE AND DEPTHS OF SUBSURFACE STRATA.


<b>CROSS SECTION OF LANDFILL MATERIAL EAST-WEST - EXISTING CONDITIONS</b>	Drawn By:	Drawing:	Scale:	Project No.:	Date :
	CJD	Figure 5b	As Noted	AT5596	October 2022
Beacon Island Parcel Bethlehem, Albany County, New York	 <b>ATLANTIC TESTING LABORATORIES, Limited</b> Albany, NY Binghamton, NY Canton, NY Elmira, NY Poughkeepsie, NY Plattsburgh, NY Rochester, NY Syracuse, NY Utica, NY Watertown, NY <small>WBE Certified Company www.AtlanticTesting.com</small>				

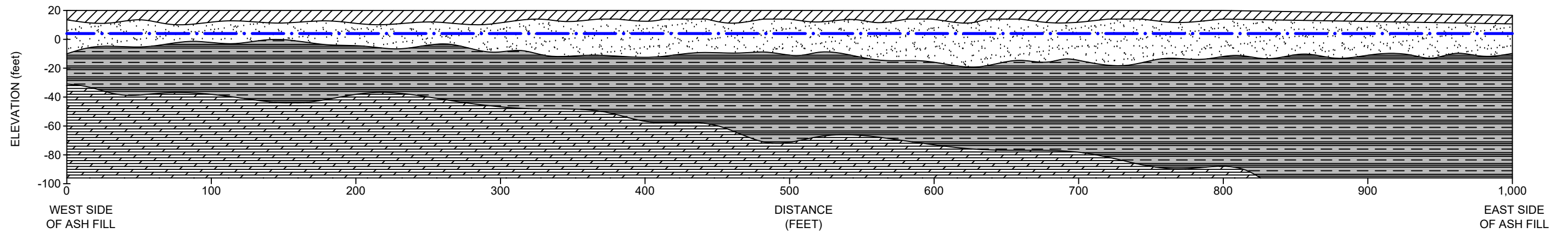


**LEGEND FOR SUBSURFACE STRATA**


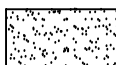



-  Fill/Cover Material (minimum required thickness of 2 feet)
-  Ash Layer (same as existing conditions, with a portion being excavated and relocated to areas with pre-existing ash)
-  Clay/Silt/Sand Layers (native soil layers for which ash was placed over)
-  Bedrock (generally encountered at 45 -159 feet below ground surface and sloping from west to east)
-  Groundwater (estimated to be at or near the mean high water level for Hudson River/Normanskill Creek of 4 feet)

NOTE: DETAILS ON THIS DRAWING ARE PROVIDED AS A GENERAL OVERVIEW OF SUBSURFACE STRATA AT THE SITE. THIS CROSS SECTION VIEW IS NOT INTENDED TO SHOW AN EXACT REPRESENTATION OF SUBSURFACE PROFILE AND DEPTHS OF SUBSURFACE STRATA.


<b>CROSS SECTION OF LANDFILL MATERIAL NORTH-SOUTH - PROPOSED CONDITIONS</b>	Drawn By:	Drawing:	Scale:	Project No.:	Date :
	CJD	Figure 6a	As Noted	AT5596	October 2022
<b>Beacon Island Parcel</b> Bethlehem, Albany County, New York		 <b>ATLANTIC TESTING LABORATORIES, Limited</b> Albany, NY Binghamton, NY Canton, NY Elmira, NY Poughkeepsie, NY Plattsburgh, NY Rochester, NY Syracuse, NY Utica, NY Watertown, NY <small>WBE Certified Company www.AtlanticTesting.com</small>			

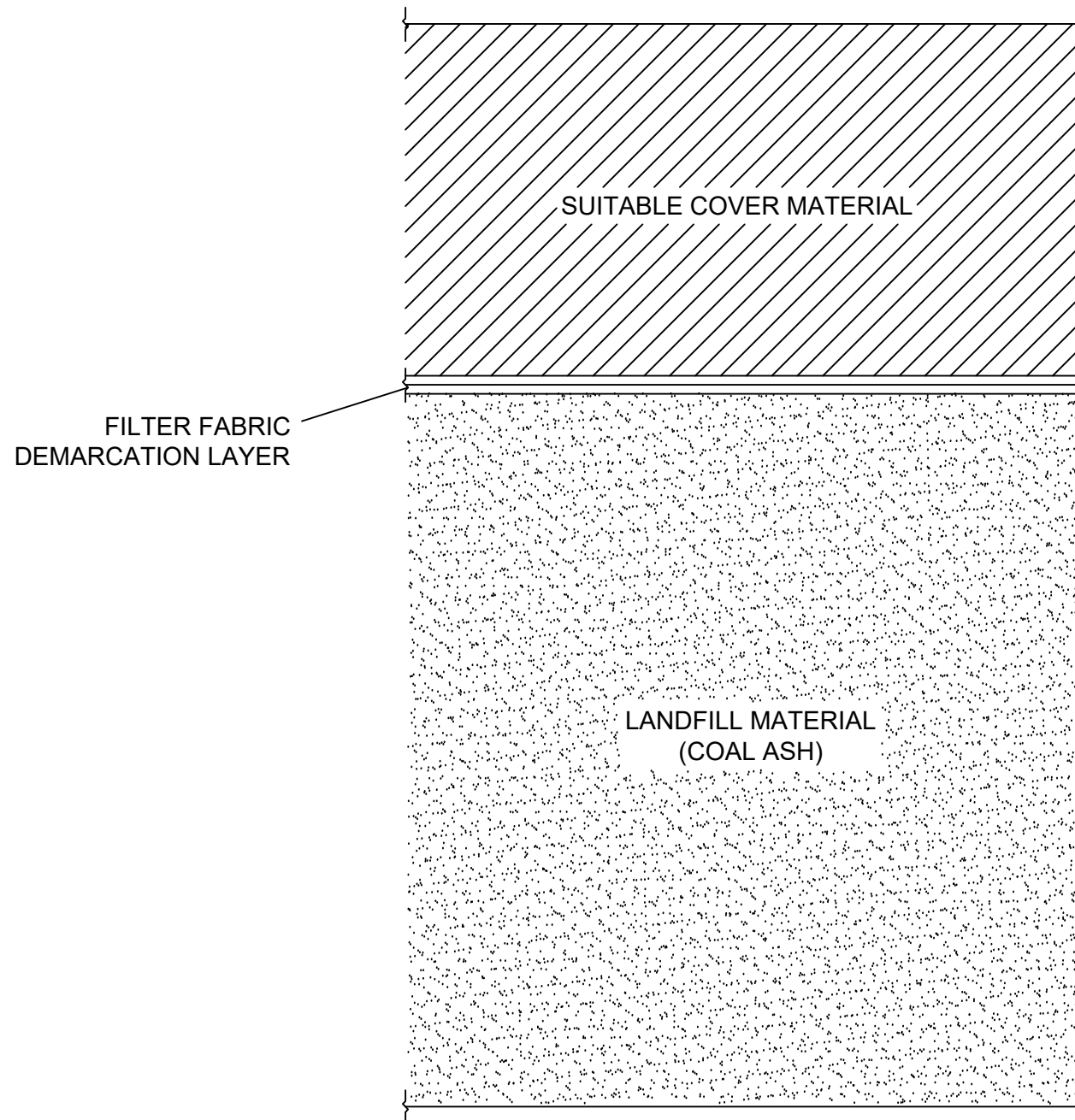


**LEGEND FOR SUBSURFACE STRATA**

-  Fill/Cover Material (minimum required thickness of 2 feet)
-  Ash Layer (same as existing conditions, with a portion being excavated and relocated to areas with pre-existing ash)
-  Clay/Silt/Sand Layers (native soil layers for which ash was placed over)
-  Bedrock (generally encountered at 45 -159 feet below ground surface and sloping from west to east)
-  Groundwater (estimated to be at or near the mean high water level for Hudson River/Normanskill Creek of 4 feet)


**NOTE:** DETAILS ON THIS DRAWING ARE PROVIDED AS A GENERAL OVERVIEW OF SUBSURFACE STRATA AT THE SITE. THIS CROSS SECTION VIEW IS NOT INTENDED TO SHOW AN EXACT REPRESENTATION OF SUBSURFACE PROFILE AND DEPTHS OF SUBSURFACE STRATA.

<b>CROSS SECTION OF LANDFILL MATERIAL EAST-WEST - PROPOSED CONDITIONS</b>	Drawn By:	Drawing:	Scale:	Project No.:	Date :
	CJD	Figure 6b	As Noted	AT5596	October 2022
Beacon Island Parcel Bethlehem, Albany County, New York			<b>ATLANTIC TESTING LABORATORIES, Limited</b> Albany, NY Binghamton, NY Canton, NY Elmira, NY Poughkeepsie, NY Plattsburgh, NY Rochester, NY Syracuse, NY Utica, NY Watertown, NY <small>WBE Certified Company www.AtlanticTesting.com</small>		



**SITE CAP NOTES:**

1. A MINIMUM OF 2 FEET OF SOIL COVER SHALL BE PLACED ABOVE LANDFILL MATERIAL (COAL ASH).
2. THE UPPER 2 FEET OF SOIL COVER SHALL NOT HAVE CONCENTRATIONS OF CONTAMINANTS THAT EXCEED THE RESTRICTED RESIDENTIAL SOIL CLEANUP OBJECTIVES SET FORTH IN 6 NYCRR PART 375-6.
3. FILL THAT IS PLACED AT A DEPTH BELOW THE UPPER 2 FEET OF COVER SHALL NOT HAVE CONCENTRATIONS OF CONTAMINANTS THAT EXCEED THE COMMERCIAL SOIL CLEANUP OBJECTIVES SET FORTH IN 6 NYCRR PART 375-6.
4. IN THE EVENT THAT THE SOIL COVER SYSTEM IS BREACHED, PENETRATED, OR TEMPORARILY REMOVED, RESTORATION TO ORIGINAL CONDITION (OR EQUIVALENT) SHALL BE COMPLETED WITHIN 48 HOURS OF DISCOVERY.
5. AREAS WITH A SOIL COVER SHALL BE INSPECTED AT LEAST ANNUALLY TO ASSESS EXISTING CONDITIONS AND DETERMINE IF ANY RESTORATION OR REPAIRS ARE NECESSARY. INSPECTIONS SHALL ALSO BE PERFORMED AFTER SEVERE WEATHER EVENTS OR SIGNIFICANT SITE OPERATIONS THAT MAY HAVE ADVERSELY AFFECTED THE SOIL COVER SYSTEM.

<b>SITE CAP</b>	Drawn By: CJD	Drawing: Figure 7	Scale: As Noted	Project No.: AT5596	Date : October 2022
Beacon Island Parcel Bethlehem, Albany County, New York	 <b>ATLANTIC TESTING LABORATORIES, Limited</b> Albany, NY Binghamton, NY Canton, NY Elmira, NY Poughkeepsie, NY Plattsburgh, NY Rochester, NY Syracuse, NY Utica, NY Watertown, NY <small>WBE Certified Company www.AtlanticTesting.com</small>				

**TABLES**

- Table 1 – Soil Data***
- Table 2 – Groundwater Data***
- Table 3 – Soil Vapor Data***

**Table 1 – Soil Data**  
**Summary of Laboratory Analysis Results**  
**Soil Samples Collected from Coal Ash Material and Material Impacted by Apparent Weathered Petroleum**

Reference Report for Sample Data	Bergmann Draft Phase II (2017)												6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level
Date Sampled	02/15/17	02/15/17	02/27/17	02/27/17	02/20/17	02/20/17	02/14/17	02/14/17	02/22/17	02/22/17	02/22/17	02/22/17			
Sample Location	B-1 (2017)	B-1 (2017)	B-2 (2017)	B-2 (2017)	B-3 (2017)	B-3 (2017)	B-4 (2017)	B-4 (2017)	B-6 (2017)	B-6 (2017)	B-7 (2017)	B-7 (2017)			
Sample Depth*	0-2"	10-12'	0-2"	4-6'	0-2"	2-4'	0-2"	2-4'	0-2"	4-6'	0-2"	1-4'			
Material Type	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash			
<b>TAL Metals and Cyanide (ppm)</b>															
Aluminum	13,700	12,900	12,400	19,800	10,200	14,100	16,200	16,000	22,000	17,200	14,500	17,200	10,000	---	---
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	---	---
Arsenic	33.4	32.8	44.7	50.6	6.87	12.5	44.9	56.0	71.5	57.6	32.4	61.4	13	16	16
Barium	419	411	383	667	93.1	224	447	469	576	450	369	546	350	400	10,000
Beryllium	1.39	1.60	1.81	2.34	0.565	1.02	2.01	2.18	2.31	1.89	2.07	1.99	7.2	590	2,700
Cadmium	ND	ND	1.01	1.45	ND	ND	ND	ND	ND	ND	ND	ND	2.5	9.3	60
Calcium	6,130	8,890	6,590	15,700	10,500	6,620	9,670	7,770	8,080	6,210	5,330	7,150	10,000	---	---
Chromium	20.3	20.9	20.3	30.3	12.8	12.9	28.0	26.9	30.1	25.6	24.7	34.9	30	1,500	6,800
Cobalt	9.28	7.35	9.39	13.0	7.84	6.99	9.38	9.33	10.8	8.22	10.7	8.93	20	---	---
Copper	18.5	25.2	24.0	25.4	18.4	16.7	25.4	24.4	24.8	20.1	25.7	23.9	50	270	10,000
Iron	44,800	27,100	32,200	46,400	22,100	43,100	29,500	21,500	29,700	21,200	24,000	15,400	2,000	---	---
Lead	7.37	9.71	9.76	13.2	11.4	4.98	17.8	14.7	16.9	15.0	16.6	15.9	63	1,000	3,900
Magnesium	2,310	1,220	1,350	2,450	6,260	991	2,110	1,630	2,250	1,640	1,260	1,700	---	---	---
Manganese	135	61.7	82.4	121	350	77.8	167	78.0	129	96.6	104	110	1,600	10,000	10,000
Mercury	0.123	0.0946	0.140	0.160	0.0449	0.0130	0.255	0.235	0.155	0.148	0.153	0.197	0.18	2.8	5.7
Nickel	131	17.0	18.3	24.7	49.3	14.9	25.8	19.4	48	32.1	221	67.8	30	310	10,000
Potassium	1,290	1,160	1,230	1,570	1,210	1,270	1,870	1,600	2,180	1,730	1,340	1,670	---	---	---
Selenium	ND	3.83	3.74	8.04	ND	ND	ND	1.78	ND	ND	ND	ND	3.9	1,500	6,800
Silver	ND	ND	3.98	5.52	1.77	3.69	ND	ND	3.01	1.78	2.40	1.38	2	1,500	6,800
Sodium	425	607	521	1,110	ND	528	978	824	578	480	395	674	---	---	---
Thallium	2.50	2.58	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	---	---
Vanadium	1,110	1,200	39.9	54.3	230	26.2	66.1	49.9	168	135	679	372	39	---	---
Zinc	26.1	25.3	27.0	29.6	41.9	9.37	56.0	35.7	36.0	30.2	31.2	31.3	109	10,000	10,000
Cyanide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	27	27	10,000

**Table 1 – Soil Data**  
**Summary of Laboratory Analysis Results**  
**Soil Samples Collected from Coal Ash Material and Material Impacted by Apparent Weathered Petroleum**

Reference Report for Sample Data	ATL Soil Sampling Report (2022)													6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level
Date Sampled	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22			
Sample Location	B-12 (2022)	B-12 (2022)	B-13 (2022)	B-14 (2022)	B-14 (2022)	B-18 (2022)	B-18 (2022)	B-19 (2022)	B-19 (2022)	B-23 (2022)	B-24 (2022)	B-25 (2022)	B-25 (2022)			
Sample Depth*	0.5'-1'	1'-4'	0'-2'	0.5'-4'	6'-8'	0.5'-2.5'	2.5'-5'	2'-4'	6'-8'	2'-4'	1'-3.5'	0.5'-3'	4'-6'			
Material Type	Soil with Weathered Petroleum	Soil with Weathered Petroleum	Soil with Weathered Petroleum	Soil with Weathered Petroleum	Soil Below Weathered Petroleum	Soil Near Weathered Petroleum	Soil Near Weathered Petroleum	Soil with Weathered Petroleum	Soil Below Weathered Petroleum	Soil with Weathered Petroleum	Soil Near Weathered Petroleum	Soil Near Weathered Petroleum	Soil Near Weathered Petroleum			
VOC(ppm)																
Acetone	0.012	0.012	ND	ND	0.031	ND	0.092	ND	0.11	0.064	0.021	ND	ND	0.05	500	1,000
2-Butanone	ND	ND	ND	ND	ND	ND	0.0026	ND	ND	ND	ND	ND	ND	100	---	---
Benzene	ND	ND	0.00024	0.1	ND	ND	ND	ND	0.00024	ND	ND	ND	ND	0.06	44	89
Toluene	ND	ND	ND	0.072	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	500	1,000
Ethylbenzene	ND	ND	0.00015	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	30	390	780
Xylenes	ND	ND	ND	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	500	1,000
Naphthalene	0.00092	ND	ND	7.9	ND	ND	ND	0.11	ND	ND	ND	ND	ND	12	500	1,000
n-Butylbenzene	ND	ND	ND	1.8	ND	ND	ND	0.24	ND	ND	ND	ND	ND	12	---	---
sec-Butylbenzene	ND	ND	ND	0.87	ND	ND	ND	0.26	ND	ND	ND	ND	ND	11	500	1,000
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	0.015	ND	ND	ND	ND	ND	100	500	1,000
Isopropylbenzene	ND	ND	ND	0.97	ND	ND	ND	0.16	ND	ND	ND	ND	ND	100	---	---
p-Isopropyltoluene	ND	ND	ND	1.2	ND	ND	ND	0.031	ND	ND	ND	ND	ND	10	---	---
n-Propylbenzene	ND	ND	ND	2.4	ND	ND	ND	0.16	ND	ND	ND	ND	ND	3.9	---	---
p-Diethylbenzene	0.00038	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
1,3,5-Trimethylbenzene	ND	ND	ND	4.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	47	190	380
1,2,4-Trimethylbenzene	ND	ND	ND	23	ND	ND	ND	0.037	ND	ND	ND	ND	ND	47	190	380
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	0.09	ND	ND	ND	ND	ND	---	---	---
Methyl cyclohexane	ND	ND	ND	ND	ND	ND	ND	0.18	ND	ND	ND	ND	ND	---	---	---
p-Ethyltoluene	ND	ND	ND	7.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
1,2,4,5-Tetramethylbenzene	0.00078	ND	ND	4.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
Ethyl ether	ND	0.00067	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---

**Table 1 – Soil Data**  
**Summary of Laboratory Analysis Results**  
**Soil Samples Collected from Coal Ash Material and Material Impacted by Apparent Weathered Petroleum**

Reference Report for Sample Data	ATL Soil Sampling Report (2022)											6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level
Date Sampled	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22			
Sample Location	B-1 (2022)	B-1 (2022)	B-1A (2022)	B-1A (2022)	B-3 (2022)	B-3 (2022)	B-3 (2022)	B-5 (2022)	B-5 (2022)	B-5 (2022)	B-6 (2022)			
Sample Date	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022			
Sample Depth*	0'-2'	2'-4'	4'-7'	7'-8'	0'-2'	2'-4'	4'-8'	0'-2'	2'-4'	4'-8'	0'-1'			
Material Type	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash			
<b>Semi-VOC(ppm)</b>														
Benzo(ghi)perylene	0.034	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	500	1,000
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
<b>PCB(ppm)</b>														
Total PCB	0.037	0.0439	0.0401	0.0603	0.0209	0.00724	0.00691	0.0680	0.0247	0.00905	0.00798	0.1	1	25
<b>Pesticides (ppm)</b>														
4,4'- DDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000677	ND	0.0033	62	120
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
<b>TAL Metals (ppm)</b>														
Aluminum	<b>10,300</b>	<b>12,400</b>	9,860	<b>13,400</b>	9,520	<b>9,450</b>	<b>11,200</b>	<b>10,600</b>	<b>10,300</b>	<b>12,900</b>	9,370	10,000	---	---
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	---	---
Arsenic	<b>37.6</b>	<b>44.3</b>	<b>34.4</b>	<b>43.8</b>	<b>31.2</b>	<b>30</b>	<b>30.5</b>	<b>29.5</b>	<b>34.9</b>	<b>54.9</b>	<b>32.9</b>	13	16	16
Barium	271	<b>354</b>	349	<b>529</b>	332	342	<b>365</b>	267	<b>371</b>	<b>475</b>	273	350	400	10,000
Beryllium	1.65	1.73	1.76	1.7	1.02	0.969	1.24	1.50	1.4	1.63	0.961	7.2	590	2,700
Cadmium	0.483	0.444	0.524	0.611	1.29	1.22	0.666	0.628	0.9	0.921	1.22	2.5	9.3	60
Calcium	4,420	5,940	7,710	9,340	8,690	<b>11,600</b>	<b>14,800</b>	2,830	5,650	8,520	6,760	10,000	---	---
Chromium	16.9	19.3	16.9	20.8	12.6	13.6	15.6	19.1	15.8	18.6	12.5	30	1,500	6,800
Cobalt	6.82	5.92	6.12	7.03	6.61	7.25	5.85	11	7.38	7.53	6.52	20	---	---
Copper	16.4	15.8	17.5	22.7	11.4	13.1	12	29.7	19.8	19.9	12.7	50	270	10,000
Iron	<b>16,500</b>	<b>16,200</b>	<b>19,700</b>	<b>21,600</b>	<b>84,200</b>	<b>75,600</b>	<b>30,500</b>	<b>20,800</b>	<b>44,000</b>	<b>38,600</b>	<b>75,800</b>	2,000	---	---
Lead	9	8.47	8.04	10.2	3.59	3.43	5.48	8.88	4.52	7.35	3.11	63	1,000	3,900
Magnesium	1,340	1,790	969	1,250	999	1,010	1,380	1,220	1,040	1,420	1,270	---	---	---
Manganese	88.5	60.8	50.2	54.9	134	112	81.4	133	77.1	77.5	117	1,600	10,000	10,000
Mercury	<b>0.205</b>	0.127	<b>0.226</b>	<b>0.233</b>	0.066	0.078	0.095	0.170	0.171	0.156	0.056	0.18	2.8	5.7
Nickel	<b>157</b>	13	13.5	15.4	14.8	15.7	12.4	<b>232</b>	<b>186</b>	<b>150</b>	15.7	30	310	10,000
Potassium	785	985	738	1,120	724	628	631	845	750	942	608	---	---	---
Selenium	ND	0.721	0.963	2.12	0.810	1.14	1.51	ND	1.02	1.37	0.685	3.9	1,500	6,800
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	1,500	6,800
Sodium	328	463	351	649	253	249	412	227	345	524	235	---	---	---
Thallium	ND	ND	ND	ND	ND	0.333	ND	ND	ND	ND	ND	5	---	---
Vanadium	<b>1,110</b>	<b>1,140</b>	<b>1,100</b>	<b>1,120</b>	30.2	29.5	27.8	<b>1,020</b>	<b>172</b>	<b>247</b>	<b>60.1</b>	39	---	---
Zinc	22.6	20.6	22.1	26	14.4	15	16.3	37.7	18.5	22.4	13	109	10,000	10,000



**Table 1 – Soil Data**  
**Summary of Laboratory Analysis Results**  
**Soil Samples Collected from Coal Ash Material and Material Impacted by Apparent Weathered Petroleum**

Reference Report for Sample Data	ATL Soil Sampling Report (2022)											6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level	
Date Sampled	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22				
Sample Location	B-6 (2022)	B-6 (2022)	B-8 (2022)	B-8 (2022)	B-8 (2022)	B-11 (2022)	B-11 (2022)	B-11 (2022)	B-12 (2022)	B-12 (2022)	B-12 (2022)				
Sample Date	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022				
Sample Depth*	2'-4'	4'-8'	0'-2'	2'-4'	4'-8'	0'-1'	1'-4'	4'-8'	0.5'-1'	1'-4'	4'-8'				
Material Type	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Soil Above Coal Ash	Coal Ash	Coal Ash	Soil with Weathered Petroleum	Soil with Weathered Petroleum	Soil Below Weathered Petroleum				
<b>Semi-VOC(ppm)</b>															
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	0.67	ND	0.047	100	500	1,000	
Fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	9.8	0.13	0.98	100	500	1,000	
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	0.36	ND	0.029	12	500	1,000	
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	4.8	0.06	0.4	1	5.6	11	
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	4.1	ND	0.35	1	1	1.1	
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	5.2	0.059	0.46	1	5.6	11	
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	0.14	0.8	56	110	
Chrysene	ND	ND	ND	ND	ND	ND	ND	ND	4.5	0.052	0.4	1	56	110	
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	0.07	ND	ND	20	500	1,000	
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	0.11	100	500	1,000	
Benzo(ghi)perylene	ND	ND	ND	ND	ND	ND	ND	ND	2.2	0.029	0.22	100	500	1,000	
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	0.61	ND	0.051	100	500	1,000	
Phenanthrene	ND	ND	ND	ND	ND	ND	ND	ND	6.6	0.08	0.58	100	500	1,000	
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	0.48	ND	0.048	0.33	0.56	1.1	
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	2.6	0.034	0.25	0.5	5.6	11	
Pyrene	ND	ND	ND	ND	ND	ND	ND	ND	8.2	0.11	0.84	100	500	1,000	
Biphenyl	ND	ND	ND	ND	ND	ND	ND	ND	0.053	ND	ND	60	---	---	
Dibenzofuran	ND	ND	ND	ND	ND	ND	ND	ND	0.38	ND	0.028	14	500	1,000	
Carbazole	ND	ND	ND	ND	ND	ND	ND	ND	0.91	ND	0.088	---	---	---	
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	0.5	ND	ND	0.41	---	---	
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	
<b>PCB(ppm)</b>															
Total PCB	ND	0.0212	0.00991	0.00916	0.0697	0.0455	0.00975	0.0277	0.00803	0.0630	0.0264	0.1	1	25	
<b>Pesticides (ppm)</b>															
4,4'- DDE	ND	0.000772	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0033	62	120	
4,4'- DDD	ND	ND	ND	ND	ND	ND	ND	ND	0.000743	ND	ND	0.0033	92	180	
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	

**Table 1 – Soil Data**  
**Summary of Laboratory Analysis Results**  
**Soil Samples Collected from Coal Ash Material and Material Impacted by Apparent Weathered Petroleum**

Reference Report for Sample Data	ATL Soil Sampling Report (2022)											6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level
Date Sampled	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22	10/04/22			
Sample Location	B-6 (2022)	B-6 (2022)	B-8 (2022)	B-8 (2022)	B-8 (2022)	B-11 (2022)	B-11 (2022)	B-11 (2022)	B-12 (2022)	B-12 (2022)	B-12 (2022)			
Sample Date	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022	10/04/2022			
Sample Depth*	2'-4'	4'-8'	0'-2'	2'-4'	4'-8'	0'-1'	1'-4'	4'-8'	0.5'-1'	1'-4'	4'-8'			
Material Type	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Coal Ash	Soil Above Coal Ash	Coal Ash	Coal Ash	Soil with Weathered Petroleum	Soil with Weathered Petroleum	Soil Below Weathered Petroleum			
<b>TAL Metals (ppm)</b>														
Aluminum	9,350	<b>10,800</b>	8,680	9,300	5,650	9,210	9,900	8,400	9,810	8,250	7,980	10,000	---	---
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	---	---
Arsenic	<b>37.6</b>	<b>63</b>	<b>46.3</b>	<b>35.2</b>	<b>34.9</b>	<b>56.4</b>	<b>34.3</b>	<b>42.3</b>	9.83	5.67	4.96	13	16	16
Barium	318	<b>467</b>	292	235	328	272	334	330	111	71.4	72.2	350	400	10,000
Beryllium	1.02	1.54	1.41	0.908	1.05	1.38	0.884	1.42	0.650	0.467	0.474	7.2	590	2,700
Cadmium	0.705	0.739	0.705	1.27	0.746	0.557	1.04	0.580	0.624	0.467	0.451	2.5	9.3	60
Calcium	5,270	<b>13,200</b>	4,440	<b>13,600</b>	4,260	4,900	5,570	7,340	<b>12,200</b>	<b>13,000</b>	<b>12,900</b>	10,000	---	---
Chromium	11.3	21.7	17.9	13.2	13.7	15.4	13.9	14.7	10.8	13.8	11.8	30	1,500	6,800
Cobalt	5.55	6.65	9.45	6.87	4.84	5.68	8.35	5.68	7.62	8.05	7.29	20	---	---
Copper	12.7	28.3	16.7	13	11.7	14.8	16.9	13.8	16.5	14.8	16.4	50	270	10,000
Iron	<b>31,800</b>	<b>26,000</b>	<b>30,200</b>	<b>73,200</b>	<b>34,200</b>	<b>20,700</b>	<b>47,700</b>	<b>22,000</b>	<b>28,400</b>	<b>24,200</b>	<b>22,700</b>	2,000	---	---
Lead	4.82	9.92	7.72	2.91	4.04	8.11	6.31	7.09	14.7	9.39	12.8	63	1,000	3,900
Magnesium	1,140	1,090	1,480	1,260	582	1,260	2,190	855	3,880	5,820	5,120	---	---	---
Manganese	68.1	89.3	96.7	126	61.3	91.7	552	44.2	290	327	254	1,600	10,000	10,000
Mercury	0.139	0.173	0.148	0.082	0.089	0.178	ND	0.176	0.051	ND	ND	0.18	2.8	5.7
Nickel	12.2	17.6	<b>352</b>	19.1	12	21.2	20.6	12.2	18.5	17	17.2	30	310	10,000
Potassium	569	863	759	647	481	902	704	666	909	806	679	---	---	---
Selenium	0.321	0.802	ND	1.74	1.05	ND	0.841	0.712	0.442	ND	ND	3.9	1,500	6,800
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	1,500	6,800
Sodium	207	327	221	217	110	216	187	211	195	109	97.3	---	---	---
Thallium	0.524	0.401	ND	ND	ND	ND	0.535	ND	ND	ND	ND	5	---	---
Vanadium	<b>48.2</b>	38.7	<b>1,580</b>	<b>401</b>	<b>174</b>	<b>87.4</b>	<b>46.4</b>	33.4	38.9	16	17	39	---	---
Zinc	15.5	32.4	20.2	13.3	20.9	23.7	26.4	22.4	35.3	46.3	46.8	109	10,000	10,000

**Table 1 – Soil Data**  
**Summary of Laboratory Analysis Results**  
**Soil Samples Collected from Coal Ash Material and Material Impacted by Apparent Weathered Petroleum**

Reference Report for Sample Data	ATL Soil Sampling Report (2022)								6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level
Date Sampled	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22			
Sample Location	B-18 (2022)	B-18 (2022)	B-19 (2022)	B-19 (2022)	B-23 (2022)	B-24 (2022)	B-25 (2022)	B-25 (2022)			
Sample Date	10/05/2022	10/05/2022	10/05/2022	10/05/2022	10/05/2022	10/05/2022	10/05/2022	10/05/2022			
Sample Depth*	0.5'-2.5'	2.5'-5'	2'-4'	6'-8'	2'-4'	1'-3.5'	0.5'-3'	4'-6'			
Material Type	Soi Near Weathered Petroleum	Soi Near Weathered Petroleum	Soil with Weathered Petroleum	Soil Below Weathered Petroleum	Soil with Weathered Petroleum	Soi Near Weathered Petroleum	Soi Near Weathered Petroleum	Soi Near Weathered Petroleum			
<b>Semi-VOC(ppm)</b>											
Acenaphthene	ND	ND	1	ND	ND	ND	ND	ND	100	500	1,000
Fluoranthene	0.43	ND	ND	ND	0.099	0.26	0.14	ND	100	500	1,000
Naphthalene	ND	ND	0.98	ND	0.027	ND	ND	ND	12	500	1,000
Benzo(a)anthracene	0.19	ND	ND	ND	0.047	0.14	0.086	ND	1	5.6	11
Benzo(a)pyrene	ND	ND	ND	ND	ND	0.14	0.075	ND	1	1	1.1
Benzo(b)fluoranthene	0.26	ND	ND	ND	0.047	0.13	0.072	ND	1	5.6	11
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	0.041	0.036	ND	0.8	56	110
Benzo(ghi)perylene	0.14	ND	ND	ND	0.025	0.08	0.034	ND	100	500	1,000
Chrysene	0.19	ND	0.47	ND	0.049	0.11	0.078	ND	1	56	110
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	20	500	1,000
Anthracene	ND	ND	0.4	ND	ND	0.042	ND	ND	100	500	1,000
Benzo(ghi)perylene	ND	ND	ND	ND	ND	0.08	ND	ND	100	500	1,000
Fluorene	ND	ND	1.1	ND	ND	0.019	ND	ND	100	500	1,000
Phenanthrene	0.3	ND	2.8	ND	0.093	0.21	0.052	ND	100	500	1,000
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	0.33	0.56	1.1
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	0.065	0.034	ND	0.5	5.6	11
Pyrene	0.38	ND	0.57	ND	0.084	0.32	0.13	ND	100	500	1,000
Biphenyl	ND	ND	0.26	ND	ND	ND	ND	ND	60	---	---
Dibenzofuran	ND	ND	ND	ND	ND	ND	ND	ND	14	500	1,000
Carbazole	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
2-Methylnaphthalene	0.15	ND	8.4	ND	0.046	ND	ND	ND	0.41	---	---
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
Benzo(ghi)perylene		ND	ND	ND	ND	ND	ND	ND	100	500	1,000
Fluoranthene	0.43										
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
<b>PCB(ppm)</b>											
Total PCB	NA	NA	0.0292	NA	0.0303	NA	NA	NA	0.1	1	25
<b>Pesticides (ppm)</b>											
All Other Target Compounds	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---

**Table 1 – Soil Data  
Summary of Laboratory Analysis Results  
Soil Samples Collected from Coal Ash Material and Material Impacted by Apparent Weathered Petroleum**

Reference Report for Sample Data	ATL Soil Sampling Report (2022)								6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level
Date Sampled	10/05/22	Date Sampled	10/05/22	Date Sampled	10/05/22	Date Sampled	10/05/22	Date Sampled			
Sample Location	B-18 (2022)	B-18 (2022)	B-19 (2022)	B-19 (2022)	B-23 (2022)	B-24 (2022)	B-25 (2022)	B-25 (2022)			
Sample Date	10/05/2022	10/05/2022	10/05/2022	10/05/2022	10/05/2022	10/05/2022	10/05/2022	10/05/2022			
Sample Depth*	0.5'-2.5'	2.5'-5'	2'-4'	6'-8'	2'-4'	1'-3.5'	0.5'-3'	4'-6'			
Material Type	Soi Near Weathered Petroleum	Soi Near Weathered Petroleum	Soil with Weathered Petroleum	Soil Below Weathered Petroleum	Soil with Weathered Petroleum	Soi Near Weathered Petroleum	Soi Near Weathered Petroleum	Soi Near Weathered Petroleum			
<b>TAL Metals (ppm)</b>											
Aluminum	8,930	<b>11,200</b>	NA	NA	10,400	5,450	4,850	NA	10,000	---	---
Antimony	0.606	0.893	NA	NA	1.08	0.578	0.453	NA	12	---	---
Arsenic	10.1	6.71	NA	NA	10.6	3.82	2.67	NA	13	16	16
Barium	126	90.5	NA	NA	130	29.9	29.3	NA	350	400	10,000
Beryllium	0.698	0.595	NA	NA	0.675	0.271	0.226	NA	7.2	590	2,700
Cadmium	0.565	0.502	NA	NA	0.647	0.307	0.252	NA	2.5	9.3	60
Calcium	4,270	<b>18,700</b>	NA	NA	<b>11,400</b>	<b>11,500</b>	6,100	NA	10,000	---	---
Chromium	7.99	15.3	NA	NA	13.9	8.94	7.26	NA	30	1,500	6,800
Cobalt	4.05	10.5	NA	NA	7.95	6.18	5.34	NA	20	---	---
Copper	11.6	23.9	NA	NA	18.3	11.5	8.29	NA	50	270	10,000
Iron	<b>32,800</b>	<b>24,500</b>	NA	NA	<b>32,000</b>	<b>14,500</b>	<b>12,000</b>	NA	2,000	---	---
Lead	2.61	13.5	NA	NA	11.1	8.98	10.3	NA	63	1,000	3,900
Magnesium	526	7,310	NA	NA	3,720	4,530	3,360	NA	---	---	---
Manganese	79.7	413	NA	NA	272	302	239	NA	1,600	10,000	10,000
Mercury	0.065	ND	NA	NA	0.065	ND	ND	NA	0.18	2.8	5.7
Nickel	16.7	22.2	NA	NA	16.9	12.6	10.3	NA	30	310	10,000
Potassium	645	1,230	NA	NA	967	461	366	NA	---	---	---
Selenium	0.349	ND	NA	NA	0.572	ND	ND	NA	3.9	1,500	6,800
Silver	ND	ND	NA	NA	ND	ND	ND	NA	2	1,500	6,800
Sodium	283	113	NA	NA	219	45.2	41.2	NA	---	---	---
Thallium	ND	ND	NA	NA	ND	ND	ND	NA	5	---	---
Vanadium	<b>326</b>	20	NA	NA	19.5	11	9.35	NA	39	---	---
Zinc	9.73	56.1	NA	NA	35.3	37.3	34.3	NA	109	10,000	10,000

**NOTES:**

\*= Depth in feet below ground surface

VOC = Volatile organic compounds

Semi-VOC= semi-volatile organic compounds

PCB= polychlorinated biphenyls

TAL Metals= Target Analyte List Metals

ppm = parts per million, or mg/kg.

ND = Not detected above laboratory method detection limit

NYSDEC Unrestricted Use Soil Cleanup Levels were obtained from 6 NYCRR Part 375 (Unrestricted Use Soil Cleanup Objectives) or the NYSDEC Final Commissioner Policy, CP-51, dated October 21, 2010 (most restrictive of available standards for Supplemental Soil Cleanup Objectives). NYSDEC Commercial Soil Cleanup Levels and Industrial Soil Cleanup Levels were obtained from the corresponding standards listed in 6 NYCRR Part 375 or NYSDEC CP-51.

NA = Not Applicable

Concentrations in **bold** exceed the NYSDEC Unrestricted Use Soil Cleanup Levels. Concentrations in *italics* exceed the NYSDEC Commercial Soil Cleanup Levels. Concentrations **highlighted in gray** exceed the NYSDEC Industrial Soil Cleanup Levels.



# Table 2 - Groundwater Data (excerpt from NYSDEC Groundwater Data (2020))

Inactive Landfill Initiative  
Contract D009811-02  
Beacon Island Sampling Results  
November 2020

Location Description		4-ALB-001-001-04	4-ALB-001-001-05	4-ALB-001-001-07	4-ALB-001-002-02	4-ALB-001-002-03	4-ALB-001-002-04	4-ALB-001-B3-MW-1	4-ALB-001-B4-MW-3	4-ALB-001-B5-MW-2	4-ALB-001-MW-UNK-01	4-ALB-001-MW-UNK-03	4-ALB-001-MW-UNK-03	4-ALB-001-MW-UNK-03	4-ALB-001-MW-UNK-04
Location ID		WO	WO	WO	WO	WO	WO	4-ALB-001-002-06	4-ALB-001-002-05	4-ALB-001-001-01	4-ALB-001-002-01	4-ALB-001-002-02	4-ALB-001-001-03	4-ALB-001-001-06	
Sample ID		R2011018-004	R2011018-005	R2011018-007	R2011018-002	R2011018-003	R2011018-004	R2011018-006	R2011018-005	R2011018-001	R2011018-001	R2011018-002	R2011018-003	R2011018-006	
Matrix		FB	EB	TB	FB	EB	TB	N	N	N	N	N	FD	N	
Lab Sample ID		11/18/2020	11/18/2020	11/18/2020	11/19/2020	11/19/2020	11/19/2020	11/19/2020	11/19/2020	11/19/2020	11/19/2020	11/19/2020	11/18/2020	11/18/2020	
Sample Date		11/18/2020	11/18/2020	11/18/2020	11/19/2020	11/19/2020	11/19/2020	11/19/2020	11/19/2020	11/19/2020	11/19/2020	11/19/2020	11/18/2020	11/18/2020	
Sample Type Code		FB	EB	TB	FB	EB	TB	N	N	N	N	N	FD	N	
Analytical Method	Chemical Name	Unit	NYSDEC Class GA 1	New York State MCL 2											
SW6010	Nickel	ug/l	100	-	NA	NA	NA	NA	3.8 J	2.9 J	4.5 J	40 U	2.8 J	2.6 J	3.3 J
SW6010	Potassium	ug/l	-	-	NA	NA	NA	NA	4060	3010	10100	1550 J	829 J	818 J	1210 J
SW6010	Selenium	ug/l	10	-	NA	NA	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U
SW6010	Silver	ug/l	50	-	NA	NA	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U
SW6010	Sodium	ug/l	20000	-	NA	NA	NA	NA	5870	164000	23700	37500	20500	20500	62300
SW6010	Thallium	ug/l	0.5	-	NA	NA	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U
SW6010	Vanadium	ug/l	-	-	NA	NA	NA	NA	50 U	50 U	50 U	8.7 J	50 U	50 U	1.7 J
SW6010	Zinc	ug/l	2000	-	NA	NA	NA	NA	20 U	20 U	20 U	18.5 J	20 U	20 U	20 U
SW7470	Mercury	ug/l	0.7	-	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
<i>General Chemistry</i>															
SM 2320 B	Alkalinity, Total (As CaCO3)	mg/l	-	-	NA	NA	NA	NA	548	358	560	682	140	148	264
SM 2340 C	Hardness (As CaCO3)	mg/l	-	-	NA	NA	NA	NA	780	480	1000	940	200	193	187
SM2540C	Total Dissolved Solids (Residue, Filterable)	mg/l	-	-	NA	NA	NA	NA	835	901	1230	934	250	249	285
SM5310C	Total Organic Carbon	mg/l	-	-	NA	NA	NA	NA	2.2	1.2	1.6	21.9	1	1.1	3.7
E300.0	Bromide	mg/l	2	-	NA	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U
E300.0	Chloride (As Cl)	mg/l	250	-	NA	NA	NA	NA	3.6	290	8.7	74	39.3	39.1	6.8
E300.0	Sulfate (As SO4)	mg/l	250	-	NA	NA	NA	NA	146	35.6	397	88.3	23.3	22	2 U
E350.1	Nitrogen, Ammonia (As N)	mg/l	2	-	NA	NA	NA	NA	0.159	0.05 UJ	0.287	2.99	0.05 U	0.05 U	0.399
E410.4	COD - Chemical Oxygen Demand	mg/l	-	-	NA	NA	NA	NA	6.3	5 U	5 U	50.7	5 U	5 U	10.6

Notes:  
<sup>1</sup> New York State Department of Environmental Conservation. 6NYCRR Part 703 and Technical and Operational Guidance Series (1.1.1) Class GA Standards and Guidance Values. Revised 1998  
<sup>2</sup> New York State Department of Health. State Sanitary Code (SSC) 10NYCRR Part 5 maximum contaminant levels for PFOA, PFOS, and 1,4 Dioxane  
 Orange Highlighting = Exceeds NYSDEC Class GA Standards and Guidance Values  
 Blue Highlighting = Exceeds NYS MCL  
 NA = Not analyzed, NC = criteria exists  
 Qualifiers: B = Compound was found in the blank and sample, BJ = Compound was found in the blank and sample at the estimated value, J = Estimated value, J- = Estimated biased low, J+ = Estimated biased high  
 Matrix ID: WO = Water Quality Control Matrix, WG = Groundwater, WS = Surface Water  
 Sample Type Code: N = Normal Environmental Sample, FD = Field Duplicate, EB = Equipment Blank, FB = Field Blank, TB = Trip Blank  
 Fraction: Due to turbidity being >50 NTU, total and dissolved metals samples were collected in the field. T = Total (unfiltered), D = Dissolved (filtered), NA = Not Applicable  
 Results validated.

**Table 2 - Groundwater Data  
(excerpt from Draft Bergmann  
Phase II Report (2017))**

**TABLE 3 Groundwater Sample Analysis Summary  
Metals**  
Port of Albany – Phase II ESA Report  
Albany, New York

Metals	MW-1	MW-2	MW-3	NYSDEC Groundwater Standards
Aluminum	ND	601	1,090	-
Antimony	ND	ND	ND	3
Arsenic	ND	ND	20.8	25
Barium	176	ND	321	1,000
Beryllium	ND	ND	ND	-
Cadmium	ND	ND	ND	5
Calcium	231,000	225,000	133,000	-
Chromium	ND	ND	ND	50
Cobalt	ND	ND	ND	-
Copper	ND	ND	ND	200
Iron	<b>12,900</b>	<b>25,400</b>	<b>1,470</b>	300
Lead	ND	ND	ND	25
Magnesium	45,500	26,000	14,000	-
Manganese	<b>413</b>	<b>1,550</b>	46.3	300
Mercury	ND	ND	ND	0.7
Nickel	ND	ND	ND	100
Potassium	3,230	7,390	ND	-
Selenium	ND	ND	ND	10
Silver	ND	ND	ND	50
Sodium	4,380	11,900	<b>142,000</b>	20,000
Thallium	ND	ND	ND	-
Vanadium	ND	ND	ND	-
Zinc	ND	ND	ND	-

Notes:

1. ND = Less than laboratory detection limits, - = No standard.
2. Concentration in **bold type** indicates detection above New York State Department of Environmental Conservation groundwater standards.
3. Concentrations of metals are expressed in parts per billion (ppb) equivalent to ug/l.
4. Samples collected by Bergmann Associates on March 27-28, 2017, analyzed by Paradigm Environmental Services, Inc., Rochester, New York (Lab ID # 10958).
5. NYSDEC groundwater standards 703.5 and June 1998 Division of Technical and Operational guidance series T.O.G.S. 1.1.1 and as amended April 2000.

**Table 3**  
**Soil Vapor Data**  
**Port of Albany Expansion Project – Beacon Island Site**  
**Bethlehem, Albany County, New York**

Reference Report for Sample Data	ATL Soil Vapor Sampling Report (2022)							
Date Sampled	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22
Sample Location	B-2 (2022)	B-4 (2022)	B-7 (2022)	B-10 (2022)	B-13 (2022)	B-16 (2022)	B-17 (2022)	B-26 (2022)
Sample Depth	3.3-5'	3.3-5'	3.3-5'	3.3-5'	3.3-5'	3.3-5'	3.3-5'	3.3-5'
<b>VOC (ug/m<sup>3</sup>)</b>								
Dichlorodifluoromethane	2.72	2.95	2.52	3.37	3.02	ND*	2.42	2.44
Chloromethane	ND	0.566	ND	0.475	ND	ND*	ND	0.240
1,3-Butadiene	ND	ND	ND	ND	3.69	ND*	0.454	ND
Ethanol	ND	ND	ND	ND	ND	47,100	35.2	27.3
Acetone	5.91	7.22	7.17	11.9	43.0	ND*	16.2	74.6
Trichlorofluoromethane	2.26	2.50	1.30	1.40	1.39	ND*	1.30	2.08
Isopropanol	39.3	45.2	16.2	9.07	16.0	ND*	6.46	42.3
Tertiary butyl alcohol	2.59	2.57	3.67	ND	ND	ND*	ND	5.27
Carbon disulfide	2.58	2.30	2.04	3.89	60.1	83.8	3.21	1.08
2-Butanone	ND	ND	1.73	4.98	9.29	ND*	2.98	12.4
Ethyl acetate	3.25	ND	ND	ND	ND	ND*	ND	22.3
Chloroform	46.9	30.9	13.0	20.1	4.26	ND*	22.0	46.5
n-Hexane	ND	ND	ND	1.39	18.9	76.8	2.20	2.45
1,1,1-Trichloroethane	4.35	5.33	1.59	5.28	ND	ND*	ND	6.55
Benzene	ND	ND	ND	0.687	24.2	ND*	0.652	3.11
Cyclohexane	ND	0.926	ND	ND	34.3	ND*	ND	0.809
Trichloroethene	ND	ND	4.79	1.16	ND	ND*	ND	ND
2,2,4-Trimethylpentane	ND	ND	ND	ND	15.0	ND*	ND	ND
Heptane	ND	ND	ND	0.848	9.51	ND*	3.43	2.02
Toluene	ND	ND	ND	1.15	28.6	ND*	0.806	1.39
Ethylbenzene	ND	ND	ND	ND	6.69	ND*	ND	ND
p/m-Xylene	ND	ND	ND	2.14	16.9	ND*	2.29	ND
o-Xylene	ND	ND	ND	ND	9.51	ND*	ND	ND
1,3,5-Trimethylbenzene	ND	ND	ND	ND	2.16	ND*	ND	ND
1,2,4-Trimethylbenzene	ND	ND	ND	ND	4.92	ND*	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	1.94
All other Target Compounds	ND	ND	ND	ND	ND	ND*	ND	ND
<b>Methane (ug/m<sup>3</sup>)</b>								
Methane	ND	ND	ND	ND	ND	ND	ND	ND

**NOTES:**

ug/m<sup>3</sup> = micrograms per cubic meter

ND = Not detected above respective laboratory method detection limit

Data obtained from *ATL Soil Vapor Sampling Report (2022)* – Soil Vapor Sampling and Analysis report prepared by ATL for LaBella Associates (on behalf of Port of Albany District Commission), dated October 17, 2022, and referenced as ATL Report No. CD10428CE-01-10-22. This report should be referenced for complete details of the soil vapor sampling and analysis that was performed at the subject site.

\* Laboratory method detection limit elevated due to sample dilutions required for presence of high concentration of one or more target compounds.



**APPENDIX A**  
**Registration Form**



DEPARTMENT USE ONLY	
DEC ACTIVITY #	
DATE VALIDATED	
EXPIRATION DATE	

### REGISTRATION FORM FOR A SOLID WASTE MANAGEMENT FACILITY

Please read attached instructions (found at the end of this document) before completing this application. This is not a UPA permit. Solid waste management facility operations are not authorized until a registration is validated by the Department. Attach all required information to this form, as described in the instructions.

<b>1. REQUEST TYPE</b> (check applicable box)			
<input type="checkbox"/> Initial (new facility)		<input type="checkbox"/> Renewal	
<input type="checkbox"/> Modification			
<b>2. FACILITY INFORMATION</b>			
Facility Name		Facility Address	
City/Town	Zip Code	Phone	DEC Region
NYTM – E Coordinate	NYTM-N Coordinate	DEC Activity Number (for renewal or modification only)	
<b>3. FACILITY OWNER</b>			
Owner Name		Owner Address	
City/Town/State/Zip Code	Owner Phone	Owner Email	
<b>4. FACILITY OPERATOR</b>			
Operator Name		<input type="checkbox"/> <i>same as facility owner</i>	
Operator Address			
City/Town/State/Zip Code	Operator Phone	Operator Email	
<b>5. SITE OWNER</b>			
Site Owner Name		<input type="checkbox"/> <i>same as facility owner</i>	
Site Owner Address			
City/Town/State/Zip Code	Site Owner Phone	Site Owner Email	
<b>6. PREFERRED CONTACT</b>			
<input type="checkbox"/> Facility Owner		<input type="checkbox"/> Site Owner	
<input type="checkbox"/> Facility Operator		<input type="checkbox"/> Other (provide): _____	
<b>7. FACILITY OPERATING DAYS/HOURS</b>			
<b>8. SERVICE AREA</b>			
<b>9. SOLID WASTE RECEIVED</b>			
Material	Maximum Throughput		
	Quantity	Units	Frequency (day/month/week/year)
1.			
2.			
3.			
4.			
<b>10. MATERIAL STORAGE &amp; TOTAL STORAGE CAPACITY</b>			

<b>11. REGISTRATION TYPE * Indicates Addendum required – see instructions for additional details</b>		
<b>Facility Type (check all applicable)</b>		
<input type="checkbox"/> Research, Development, and Demonstration Project [360.18(a)]	<input type="checkbox"/> Waste Tire Collection and Storage [361-6.3(a)(1)]	
<input type="checkbox"/> Recyclables Handling and Recovery ≤ 5 tons/day [361-1.3(a)(1)]	<input type="checkbox"/> Waste Tire Sellers [361-6.3(a)(2)]	
<input type="checkbox"/> Recyclables Handling and Recovery > 5 tons/day [361-1.3(a)(2)]	<input type="checkbox"/> Waste Tire Retreaders [361-6.3(a)(3)]	
<input type="checkbox"/> Land Application and Associated Storage – Storage of Recognizable Food Processing Waste [361-2.3(a)] *	<input type="checkbox"/> Motor Vehicle Repair Shop – Store 26-50 ELVs on-site at any time [361-7.3(a)(1)]	
<input type="checkbox"/> Land Application and Associated Storage – Storage of Manure [361-2.3(b)] *	<input type="checkbox"/> Vehicle Dismantling Facility – Receive ≤ 25 ELVs/year and store ≤ 50 ELVs on-site at any time [361-7.3(a)(2)]	
<input type="checkbox"/> Land Application and Associated Storage – Land Application of Unrecognizable Food Processing Waste or Papermill Residuals [361-2.3(c)] *	<input type="checkbox"/> Scrap Metal Processors [361-7.3(a)(3)]	
<input type="checkbox"/> Land Application and Associated Storage – Land Application of Septage [361-2.3(d)] *	<input type="checkbox"/> Motor Vehicle Repair Shop - Store > 50 ELVs on-site at any time [361-7.3(b)(1)]	
<input type="checkbox"/> Land Application and Associated Storage – Storage of Septage [361-2.3(e)] *	<input type="checkbox"/> Vehicle Dismantling Facility - Receive > 25 ELVs/year or store > 50 ELVs on-site at any time [361-7.3(b)(2)]	
<input type="checkbox"/> Composting – Yard Trimmings [361-3.2(b)(1)] *	<input type="checkbox"/> Mobile Vehicle Crusher [361-7.3(b)(3)]	
<input type="checkbox"/> Composting – Source-separated Organics [361-3.2(b)(2)] *	<input type="checkbox"/> Used Cooking Oil and Yellow Grease Processing [361-8.3]	
<input type="checkbox"/> Composting – Road-killed Animals or Routine Animal Mortalities [361-3.2(b)(3)] *	<input type="checkbox"/> Navigational Dredged Material Handling and Recovery [361-9.2]	
<input type="checkbox"/> Composting – Digestate [361-3.2(b)(4)] *	<input type="checkbox"/> Combustion and Thermal Treatment – Waste Tires [362-1.3(a)]	
<input type="checkbox"/> Anaerobic Digestion [361-3.3(b)(1)] *	<input type="checkbox"/> Combustion and Thermal Treatment – Uncontaminated, Unadulterated Wood [362-1.3(b)]	
<input type="checkbox"/> Fermentation for Source -separated Organics [361-3.4(b)(1)] *	<input type="checkbox"/> Combustion and Thermal Treatment – Used Cooking Oil or Yellow Grease [362-1.3(c)]	
<input type="checkbox"/> Animal Feed Production [361-3.5(b)(1)] *	<input type="checkbox"/> Combustion and Thermal Treatment – Alternative Fuel Storage [362-1.3(d)]	
<input type="checkbox"/> Other Organics Recycling [361-3.6(b)(1)] *	<input type="checkbox"/> Transfer Facility [362-3.3]	
<input type="checkbox"/> Mulch Processing [361-4.3] *	<input type="checkbox"/> Landfill Reclamation [363-11.2]	
<input type="checkbox"/> CDDHRF – Concrete, Brick, Rock [361-5.2(a)(1)]	<input type="checkbox"/> RMW Treatment, Storage, and Transfer – Storage of Radiological RMW [365-2.3(a)] *	
<input type="checkbox"/> CDDHRF – Asphalt Pavement or Millings [361-5.2(a)(2)]	<input type="checkbox"/> RMW Treatment, Storage, and Transfer – Treatment of less than 500 lbs/month at the Site of RMW Generation [365-2.3(b)] *	
<input type="checkbox"/> CDDHRF – Asphalt Roofing Shingles [361-5.2(a)(3)]	<input type="checkbox"/> RMW Treatment, Storage, and Transfer – Healthcare Facilities that Treat, Store or Dispose of RMW from Other Generators (except Part 364 Transporters) [365-2.3(c)] *	
<input type="checkbox"/> CDDHRF – Gypsum Wallboard [361-5.2(a)(4)]	<input type="checkbox"/> Infectious Waste Management – Storage at the Site of Waste Generation [365-3.3(a)] *	
<input type="checkbox"/> CDDHRF – Uncontaminated, Unadulterated Wood [361-5.2(a)(5)]	<input type="checkbox"/> Infectious Waste Management – Storage/Transfer Locations Other than the Site of Generation [365-3.3(b)] *	
<input type="checkbox"/> CDDHRF – Soil/Sand/Gravel/Rock without contamination [361-5.2(a)(6)] <b>Cannot be combined with 361-5.2(a)(7)</b>	<input type="checkbox"/> Infectious Waste Management – Temporary Treatment Devices at the Site of Waste Generation [365-3.3(c)] *	
<input type="checkbox"/> CDDHRF – Restricted Use Fill, Limited-Use Fill [361-5.2(a)(7)] <b>Cannot be combined with 361-5.2(a)(6)</b>	<input type="checkbox"/> Used oil collection centers [374-2.10(a)]	
<input type="checkbox"/> CDDHRF – Other CDD with Case-Specific BUD [361-5.2(a)(8)]	<input type="checkbox"/> Facility that holds a Federal Select Agent Program registration and inactivates BSL and ABSL 3 waste on-site* [9/19/19 EDL Para. VIII and 365-2.3(b)]	
<b>12. CERTIFICATION</b>		
I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits was prepared by me or under my supervision and direction and is true to the best of my knowledge and belief, and that I have the authority as _____ (title) of _____ (entity) to sign this registration form pursuant to 6 NYCRR Part 360, Section 360.15. By signing this registration form, I affirm that I have read the applicable regulations and will abide by all conditions of the registration requirements under Parts 360, 361, 362, 363, and 365, as applicable. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.		
Printed/Typed Name	Signature	Date

# Instructions for completion of a REGISTRATION FORM FOR A SOLID WASTE MANAGEMENT FACILITY

## GENERAL

This registration form is prescribed by the New York State Department of Environmental Conservation (Department) for solid waste management facilities pursuant to the conditions specified in [6 NYCRR Part 360.15](#) and the requirements of 6 NYCRR Parts 360, 361, 362, 363, 365 and 374. This form serves as notification to the Department of the intention to operate a registered solid waste management facility. The registration applicant and holder must be the facility owner or facility operator. Please note: **this form must be submitted and validated by the Department before commencement of construction or operation of any facility or activity subject to the registration requirements.** This is not a Uniform Procedures Act (UPA) Permit. The owner or operator of the facility required to be registered must comply with the design, operating, closure, and financial assurance criteria detailed in the regulations. Please complete this form entirely, as well as any applicable addenda or attachments, **attaching additional sheets as necessary.**

Completed applications must be submitted to the Regional Materials Management Engineer in the Regional Office corresponding to the DEC region in which the facility is or is proposed to be located. As part of the application process, Department staff may inspect the proposed site. During such inspections, staff may take measurements, photographs, videos, and make written documentation.

## CHECKLIST

Applications for solid waste management facility registration must include the items listed below:

- Completed registration application form
- Completed addenda to this form, if required (as noted in item 11)
- Site plan, which must include, but is not limited to:
  - storage for all waste materials (and for processed materials when required) declared as part of the registration application;
  - site grading and dimensions (arrows identifying slopes, contour lines, etc.) of all outdoor storage areas and piles;
  - storage and process tank details, if applicable;
  - location(s) of all processing equipment;
  - demonstration that there is adequate room for the safe, unobstructed movement of vehicles and equipment;
  - identify whether the facility is located within a special flood hazard area or state or federally regulated wetland, and that the facility follows all applicable buffer zones; and
  - location of all structures.
- List all exempt activities taking place at the site of the registered solid waste management facility, as per 360.15(c)(1).
- Certificate Under Seal of the Department of State for applications submitted by a corporation or a limited liability company as required in 360.15(c)(3), if applicable.
- Any additional attachments as required in 6 NYCRR Parts 360, 361, 362, 363, 365 and 374.

In addition to the items listed above, the Department may request the following additional items:

- Waste control plan, demonstrating compliance with the requirements of [6 NYCRR Section 360.19](#), including:
  - location(s) of signs indicating hours of operations and types of wastes accepted/not accepted;
  - procedures for pre-screening incoming materials and the inspection of incoming loads;
  - sampling procedures, if required;
  - education of customers on types of waste accepted;
  - training of staff to recognize authorized and unauthorized waste;
  - tracking procedures and documents for incoming and outgoing waste;
  - segregation and management of unauthorized waste; and
  - site access controls.
- Facility manual or other additional information, if determined necessary by the Department, to demonstrate compliance with registration requirements, such as methods to ensure dirt is not tracked offsite, methods to control blowing litter, dust control, vector control, and odor control/response.
- Closure cost estimate, which must include the cost to remove all anticipated waste from the site, if required by regulation or determined by the Department. Financial assurance may be required prior to receiving a validated registration (specified in [6 NYCRR Section 360.22](#)).
- [Record of Compliance form](#) (if required), including any required supplemental information. Any outstanding violations must be corrected prior to receiving a valid registration.
- Owner's Statement form

## ADDITIONAL INSTRUCTIONS BY ITEM NUMBER

1. Check applicable box.
2. Identify the name, address, [coordinates](#) and [DEC region](#) for the proposed facility.
3. Identify the entity or person that owns the facility.
4. Identify the entity or person responsible for the overall management and operation of the facility.
5. Identify the entity or person who owns the site on which the facility will be located, or who will own the site during the facility's operation, if different than the current facility owner.
6. Check applicable box.
7. Describe the facility's days/hours of operation.
8. List all municipalities (i.e., counties, cities, towns, villages) or [planning units](#) in the existing and/or proposed service area of the proposed facility. Also, list all states in the existing or proposed service area if waste is coming from outside of NYS.
9. List all wastes and/or materials to be accepted by the facility. Enter the maximum throughput (i.e., incoming quantity) of each material.
  - Use units and an acceptance frequency appropriate to the waste material being handled (e.g., number of tires per year for waste tires managed, tons per day for C&D debris, cubic yards per year for yard trimmings, gallons per year for used oil, etc.).
10. Describe all on-site storage for solid waste(s) handled and list the total capacity that is available. For certain facilities, description of on-site storage of source-separated or processed material is also required.
11. Check all applicable boxes that describe the facility that is the subject of this registration.
  - Note: For each registration type that requires an additional addendum, please complete the addendum and attach to this application. Facility-specific addenda can be found on the Department website: <http://www.dec.ny.gov/chemical/52706.html>
12. Certification must be completed by the registration holder (facility owner or facility operator).  
 Note: Retain a copy of this form and all applicable attachments. Submit form(s) to the appropriate [Regional Materials Management Engineer](#) (see below).

## REGIONAL OFFICES

**Please send all applications to the attention of the NYSDEC Regional Materials Management Engineer.**

DEC Region	Address	Phone	Counties Served
1	SUNY Stony Brook 50 Circle Road Stony Brook, NY 11790	(631) 444-0375	Nassau, Suffolk
2	1 Hunters Point Plaza 47-40 21 <sup>st</sup> Street Long Island City, NY 11101	(718) 482-4896	Bronx, Kings, New York, Queens, Richmond
3	21 South Putt Corners Road New Paltz, NY 12561	(845) 256-3000	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester
4	1130 North Westcott Road Schenectady, NY 12306	(518) 357-2243	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie
5	232 Golf Course Road Warrensburg, NY 12885	(518) 623-1233	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington
6	317 Washington Street Watertown, NY 13601	(315) 785-2513	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence
7	615 Erie Boulevard West Syracuse, NY 13204	(315) 426-7535	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins
8	6274 East Avon-Lima Road Avon, NY 14414	(585) 226-5408	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates
9	700 Delaware Avenue Buffalo, NY 14209	(716) 851-7220	Allegany, Cattaraugus, Chautauqua, Erie, Niagara, Wyoming

**APPENDIX B**  
**Previous Reports**



## PORT OF ALBANY



## PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

Beacon Island, Glenmont, NY

Prepared for:

**PORT OF ALBANY**

Port of Albany District Commission

**Bergmann Project No. 12084.00**

**Issuance Date: April 6, 2017**



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## 1.0 INTRODUCTION

Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. (Bergmann) was retained by The Port of Albany to conduct a Phase II Environmental Site Assessment (ESA) at the property identified as the Beacon Harbor Parcel, 80 acres of undeveloped land located between River Road (Rt. 144) and the Hudson River in the Town of Bethlehem, Albany County, New York (the Site). The purpose of this Phase II ESA report is to document the investigative activities conducted at the Site, as described above and shown on Figure 1 – Site Location Map. Photographs of Phase II activities are included in Appendix A - Photographs.

## 2.0 SITE DESCRIPTION AND BACKGROUND

### 2.1 Site Description

From approximately the 1890s through the late 1920s, the area of the subject property was filled to make land. This made land is historic fill from unknown sources. A large portion of the subject property was previously used as an ash spoil disposal site for the Albany Steam Station (formerly Bethlehem Energy) and Niagara Mohawk from 1952 through 1970. This landfilled coal ash was disposed of on top of the original ground surface and or historic fill on Beacon Island and portions of former cabbage Island. The remainder of the subject property was undeveloped vacant land.

### 2.2 Previous Environmental Assessment

A Phase I ESA Report was prepared by Bergmann and dated January 27, 2017. The purpose of the Phase I ESA report was to identify and document recognized environmental conditions (RECs) at the Site, in accordance with the American Society for Testing Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E-1527-13, published November 2013. The recommendations of the Phase I ESA included the completion of a surface and subsurface investigation including but not limited to surface and subsurface soil sampling and groundwater sampling. A summary of RECs identified in the Phase I ESA are listed below:

1. Coal Ash Spoil Disposal Landfill. According to visual observation and previous reports, a significant portion of the Site is coal ash spoil disposal material. The confirmed presence of coal ash at the Site is considered by NYSDEC as a landfill according to NYSDEC DER-10. The presence of a coal ash landfill at the Site is considered a REC.
2. Adjoining Hudson River and Spill Sources. According to database information and previous reports, the Hudson River and other sites adjoining the Site have confirmed contamination or spills of materials to the subsurface that has the potential to migrate to the Site. The material threat of migration of known contamination from the adjoining Hudson River and other spill sources adjoining the Site to migrate to the subsurface of the Site through groundwater is considered a REC.
3. Historic Fill Material. According to topographic maps and aerial photography, significant portions of the Site were formerly covered in water and later infilled to create land. The presence of historic fill material in the subsurface at the Site is considered a REC.
4. Abandoned Rail Cars. According to aerial photography and visual observation, abandoned rail cars are present on the Site. The material threat of release of a fuel source from abandoned rail cars to the surface and/or subsurface of the Site is considered a REC.
5. Abandoned Drums. Abandoned drums were observed on the Site. Hazardous substances and hazardous wastes may be present in the abandoned drums of unknown contents. The integrity of the drums is not known. The unknown contents of abandoned drums on the Site is considered a REC.



6. Confirmed Environmental Contamination. Based on a Phase II Investigation conducted by the United States Environmental Protection Agency (US EPA) at the Site, contaminants were identified in surface and subsurface soils, sediment, surface water and groundwater at varying levels, some exceeding NYSDEC screening criteria and area background levels. The confirmed presence of contamination in surface and subsurface soils, sediment, and groundwater at the Site is considered a REC.
7. Vapor Encroachment and/or Soil Vapor Intrusion. A significant portion of the Site is underlain by coal ash disposal and historic fill material. Abandoned drums with unknown contents were also observed on the Site. Future buildings at the subject property may be impacted by soil vapor intrusion, if constructed. The potential for vapor encroachment and/or soil vapor intrusion is considered an REC.

The purpose of the Phase II ESA was to evaluate current surface, subsurface, and sediment soil and groundwater quality for environmental due diligence purposes for a possible real estate transaction of the Site. Bergmann installed soil borings and monitoring wells, excavated test pits, and collected sediment samples. Soil, sediment, and groundwater samples were collected and analyzed in accordance with US EPA Method 8260 for volatile organic compounds (VOCs) target compound list (TCL), plus New York State Department of Environmental Conservation (NYSDEC) CP-51 Soil Cleanup Guidance list VOCs, US EPA Method 8270 semi-volatile organic compounds (SVOCs) TCL base neutrals (BN), 23 TCL metals, total cyanide, pesticides, and polychlorinated biphenyls (PCBs). One sediment sample was submitted for Toxicity Leaching Characteristic Procedure (TCLP) analysis to meet disposal requirements. Bergmann performed environmental monitoring of subsurface explorations completed by CME Associates, Inc. of Syracuse, New York and Port of Albany (test pit excavation).

### 3.0 SOIL INVESTIGATION

#### 3.1 *Geologic Conditions*

##### 3.1.1 *Regional Geology*

Glacial Lake Albany was a prehistoric North American proglacial lake that formed during the end of the Wisconsin glaciation. It existed between 15,000 and 12,600 years ago and was created when meltwater from a retreating glacier with water from rivers became ice dammed in the Hudson Valley. Organic materials in Lake Albany deposits have been carbon dated to approximately 11,700 years ago. The lake spanned approximately 160 miles (260 km) from present-day Newburgh to Glens Falls.

Lake Albany drained about 10,500 years ago through the Hudson River. When the lake drained it exposed the sandy and gravelly glacio-lacustrine deposits left by the glacier, along a broad plain just west of Schenectady, where the Mohawk emptied into the lake. Dune and deltaic sands, containing lenses of silty sand, silt and clay that compose the topsoil. Beneath these overburden soil deposits are lake-bottom silt and clay lacustrine deposits, which overlie Glacial till and shale bedrock

##### 3.1.2 *Site Geology*

In general, site geology consists of coal ash fill from the ground surface down to depths ranging from approximately 6 to greater than 20 feet below ground surface. The majority of the coal ash fill consists of fly ash that appears as grey to black fine sand. The coal ash was reportedly disposed of on Site by power generation companies, from approximately 1952 to 1974, that operated the coal fired electric generation station located south of the Site. Underlying the coal ash fill is a deposit of silts and clays with organic matter. This deposit may represent the original ground surface of Beacon Island and Cabbage Island or the surface of historic fill (regraded native soils) that was placed on Site between Beacon island and part of Cabbage island from the early 1890's to 1950's. The historic fill is made land that connects Beacon island with portions of the former Cabbage island. It appears that a portions of Normans kill was also fill during this time period. Currently, the Normans Kill is the



northern boundary of the Site and flows into the Hudson River. Historic Topographic Maps are presented in Appendix B – Historic Topographic Maps that show the progression of historic fill as made land on Site. Below the historic fill is Lacustrine silt and clays underlain by a Glacial till deposit consisting of dense silt, sand, and gravel. Black shale bedrock was encountered below the glacial till at depths ranging from 63 to 93 feet. The detailed description of soil samples from each soil boring is noted on soil boring logs, see Appendix C. A summary of descriptions for overburden soil deposits and bedrock in order of decreasing depths is presented below.

#### Coal Ash Fill

Primarily coal ash that is comprised of fly ash, with gray black fine sand sized grains with occasional gravel and wood fragments. This deposit is very soft and was encountered from the ground surface to depths ranging from approximately 6 to greater than 20 feet. The average thickness was approximately 13 feet. Coal ash was encountered in soil borings B-1 through B-8 and test pits TP-10 through TP-12. In some settings coal ash is considered Historic fill material as per NYSDEC DER-10 guidance. However, coal ash waste from any area which was operated by a municipality or other person (power companies) as a landfill (disposal site) is not considered historic fill material. Power companies that owned the Site generated the coal ash as chemical production waste and deposited coal ash on Site from processing of coal residues. Therefore, NYSDEC would consider this Site a coal ash landfill, since power companies used this Site for disposal of coal ash that is a regulated waste. Description of the coal ash is as follows: Grey/black fine sand, coal ash, silt to Black silt, fine sand, organic matter.

#### Historic Fill

The historic fill appears to be comprised of natural soils that contain soft grey silt and clay with organic matter and sand. This deposit is soft to medium stiff and was likely placed as fill by man to make land and or from natural river deposits. A clear distinction of original ground surface and areas of historic fill could not be made from observation of soil samples at boring locations. Historic fill was encountered in each boring from depths ranging from 6 to 32 feet with the exception of B-4, where it was not observed. The thickness of this deposit ranged from approximately 2 to 16 feet. "Historic fill" described in this report is consistent with the definition of "Historic Fill Material" as noted in NYSDEC DER-10. Description of the historic fill is as follows: Grey SILT, some clay, trace organic matter to Grey/Brown SILT, little medium to fine sand, trace clay, trace organic matter.

#### Lacustrine

The lacustrine deposit is comprised of soft grey sand, silt and clay native soils from glacial Lake Albany. This deposit was encountered at depths ranging from 14 to 82 feet below ground surface and thickness ranged from approximately 28 feet to 64 feet. Description of the lacustrine is as follows: Grey/Brown coarse to fine SAND, little silt to Grey CLAY, trace silt.

#### Glacial Till

The glacial till deposit is comprised of dense grey sand, silt and gravel native soils from the last glaciation period that overlies the bedrock. This deposit was encountered at depths ranging from approximately 48 to 82 feet below ground surface. The thickness ranged from 11 to 13 feet. Description of the glacial till is as follows: Grey medium to fine SAND and SILT, little medium to fine gravel to Grey SILT and medium to fine GRAVEL, little fine sand.

#### Bedrock

The bedrock at the Site is Grey/Black Shale that is medium hard and weathered with high angle bedding. Description of the bedrock is as follows: Black, SHALE bedrock, weathered, medium hard thin high angle bedding.



The soil boring program included the installation of 8 soil borings, 3 of which were completed as overburden groundwater monitoring wells. Soil borings were named B-1 through B-8, and installed to depths of approximately 50 feet to 150 feet below ground surface. Each soil boring was installed for environmental data collection purposes using direct push drilling methods and continuously sampled from the ground surface to the bottom depth of each soil boring using a 4-foot stainless steel split-spoon sampler for each sample interval. A representative portion of each soil sample was collected for headspace field screening for total volatile organic vapors using a photoionization detector (PID). Soil screen PID measurements ranged from 0.0 ppm to 22.9 ppm at B-5/MW-2.

## **3.2 Soil Sampling**

### **3.2.1 Surface Soil Sampling**

Surface soil samples were collected from each soil boring location from 0 to 2 inches below ground surface using a stainless steel hand trowel. The hand trowel was decontaminated prior to collection of each surface soil sample following a wash with non-phosphate detergent and a tap water rinse. A representative portion of each soil sample was placed into a ziplock bag and allowed to equilibrate to approximately room temperature for headspace screening. Another representative portion was placed into a glass jar and stored on ice for laboratory analysis. A photoionization detector (PID) equipped with a 10.2 eV lamp was used to screen headspace soil vapor from each soil sample container for total organic vapors. Vapor screening results are presented in soil boring logs included in Appendix C – Field Logs. Surface sample locations are shown on Figure 2 – Phase II ESA Investigative Locations, labeled as Soil Borings, as surface samples were collected from soil boring locations.

Surface soil sample were submitted for laboratory analysis under chain-of-custody documentation to Paradigm for analytical testing in accordance with US EPA methods 8260 for TCL + NYSDEC CP-51 list VOCs and 8270 SVOC TCL B/N, total cyanide, 23 TCL metals, pesticides, and PCBs.

### **3.2.2 Subsurface Soil Sampling**

Soil samples were collected continuously in four foot intervals using a stainless steel split-spoon sampler during the installation of soil borings. A representative portion of each soil sample was placed into a ziplock bag and allowed to equilibrate to approximately room temperature for soil vapor headspace screening. Another representative portion was placed into a glass jar and stored on ice for laboratory analysis. A photoionization detector (PID) equipped with a 10.2 eV lamp was used to screen headspace soil vapor from each soil sample container for total organic vapors. Slightly elevated total organic vapors were detected in soil boring B-5 / Mw-1 from approximately 2 feet to 6 feet below ground surface. Soil vapor screening results are presented in soil boring logs included in Appendix C. Subsurface sample locations are shown on Figure 2.

One subsurface soil sample from each soil boring were submitted for laboratory analysis, from a sample depth interval selected to represent elevated PID measurements. Where elevated PID measurements were not observed, the sample was collected from the interval above the groundwater table. Sample depth intervals are noted on each soil boring log. Soil samples were collected and submitted for laboratory analysis under chain-of-custody documentation to Paradigm Environmental (Paradigm) of Rochester, New York, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for analytical testing in accordance with US EPA methods 8260 for TCL + NYSDEC CP-51 list VOCs and 8270 SVOC TCL B/N, total cyanide, 23 TCL metals, pesticides, and PCBs. The stainless steel split-spoon sampler and other non-dedicated sample equipment were decontaminated prior to collection of each soil sample following a wash with non-phosphate detergent and tap water rinse.





### 3.2.3 Sediment Sampling

Sediment samples were collected from 3 locations at the Site to satisfy potential disposal requirements. Sediment sample locations are shown on Figure 2. Sediment samples were collected from each location from 0 to 2 inches below ground surface using a stainless steel hand trowel. The hand trowel was decontaminated prior to collection of each surface soil sample following a wash with non-phosphate detergent and a tap water rinse. A representative portion was placed into a glass jar and stored on ice for laboratory analysis. Sediment samples SED-1 through SED-3 were submitted for laboratory analysis under chain-of-custody documentation to Paradigm for analytical testing in accordance with US EPA methods 8260 for TCL + NYSDEC CP-51 list VOCs and 8270 SVOC TCL B/N, total cyanide, RCRA 8 Metals, pesticides, and PCBs. Sediment sample SEDIMENT was submitted for laboratory analysis under chain-of-custody documentation to Paradigm for analytical testing in accordance with NYSDEC Toxic Characteristic Leaching Procedure (TCLP) testing to satisfy disposal requirements.

## 4.0 SOIL SAMPLE ANALYTICAL RESULTS

### 4.1 Surface Soil Sample Results

Eight surface soil samples were collected from the Site, in the same locations as subsurface soil samples. Surface soil sample results were non-detect for VOCs, SVOCs (B/N), total cyanide, pesticides, and PCBs. Surface soil samples showed low levels of metals contamination above either NYSDEC Unrestricted Use Soil Cleanup Objectives (SCOs), Protection of Groundwater Part 375-6.5 levels (POGs), or both. Arsenic was detected in Samples B-1, B-2, B-4, B-5, B-6, and B-7 above Unrestricted Use SCOs and POGs. Barium was detected in samples B-1, B-2, B-4, B-5, B-6, and B-7 above Unrestricted Use SCOs, but below POGs. Chromium was detected in sample B-6 above Unrestricted Use SCOs, but below POGs. Mercury was detected in sample B-4 above Unrestricted Use SCOs, but below POGs. Nickel was detected in samples B-1, B-3, B-6, and B-7 above Unrestricted Use SCOs, but below POGs. Silver was detected in sample B-5 above both Unrestricted Use SCOs and POGs. Silver was also detected in samples B-6 and B-7 above Unrestricted Use SCOs, but below POGs. The surface soil samples are coal ash and indicate that the source of metals impacts to surface soil is from coal ash.

Surface soil sample results are summarized in Table 1 – Surface Soil Analysis Summary. Laboratory reports are included in Appendix D – Laboratory Data Packages.

### 4.2 Subsurface Soil Sample Results

Eight subsurface soil samples were collected from the Site. Subsurface soil sample results were non-detect for VOCs, SVOCs (B/N), total cyanide, pesticides, and PCBs. Subsurface soil samples showed low levels of metals contamination above either NYSDEC Unrestricted Use SCOs, POG Standards, or both.

Arsenic was detected in Samples B-1, B-2, B-4, B-5, B-6, and B-7 above Unrestricted Use SCOs and POGs. Barium was detected in Samples B-1, B-2, B-4, B-6, and B-7 above Unrestricted Use SCOs but below POGs. Chromium was detected in Sample B-7 above Unrestricted Use SCOs but below POGs. Mercury was detected in Samples B-4 and B-7 above Unrestricted Use SCOs but below POGs. Nickel was detected in Samples B-6 and B-7 above Unrestricted Use SCOs but below POGs. Silver was detected in Samples B-3 and B-5 above Unrestricted Use SCOs but below POGs. The subsurface soil samples are coal ash and indicate that the source of metals impacts to subsurface soil is from coal ash.

Subsurface soil sample results are summarized in Table 2 – Subsurface Soil Analysis Summary. Laboratory reports are included in Appendix D.



### 4.3 Sediment Sample Results

Sediment sample results were compared to NYSDEC “Screening and Assessment of Contaminated Sediment” criteria (Division of Fish, wildlife and Marine Resources Bureau of Habitat June 24, 2014). This screening includes Class A sediments considered to be of low risk to aquatic life. Class B sediments are slightly to moderately contaminated and additional testing to evaluate the potential risk to aquatic life. Class C sediments are considered to be highly contaminated and likely to pose a risk to aquatic life.

Three sediment samples were collected from the Site. Sample results were non-detect for VOCs, SVOCs (B/N), total cyanide, and PCBs. Sample results indicate detection of twenty-one individual metals. The level of Silver in Sed-1 exceeds Class C level, Zinc in Sed-2 exceeds Class B level, and Cadmium and Nickel in Sed-3 exceeds Class B level. Overall, it appears that this limited sediment sample analysis would indicate that these the sediment media is moderately impacted with metals and are Class B sediments, see Table 4 – Sediment Analysis Summary - Metals. Additional sediment sampling would be required to further evaluate and confirm this level of impact to sediments.

Five individual pesticides were detected at low levels in sediment samples, see Table 5 – Sediment Analysis Summary - Pesticides. The detected pesticides levels indicate Class A sediments. The pesticides detected are: Heptachlor epoxide, Methoxychlor, Endrin aldehyde, in Sed-1. Dieldrin, Endrin aldehyde, Methoxychlor, in Sed-2. Endrin aldehyde in Sed-3.

Sediment samples were also analyzed to determine if they would be considered hazardous waste via TCLP laboratory analysis. Sediment sample results were non-detect for TCLP VOCs, SVOCs, herbicides and pesticides.

Laboratory reports are included in Appendix D.

### 5.0 TEST PIT EXCAVATION AND SOIL SCREENING

A total of 12 test pits were excavated February 21-22, 2017 to investigate RECs identified in the Phase I ESA that indicated coal ash landfilling and historic fill (made land). Test pits were excavated by a Port of Albany representative using Kobelco SK 755R excavator from surface to a maximum of 12 feet below ground surface (ft. bgs). The locations of the test pits were based on the RECs identified from the Phase I ESA that indicated coal ash landfilling and historic fill (made land). Significant historic fill was added to the Site from approximately 1893 through 1927 that connected former Cabbage Island with Beacon Island. The second filling event was the onsite disposal of coal ash (landfilling) that occurred from approximately 1952 through 1970. Bergmann’s environmental specialist conducted a visual inspection of each test pit and soil screening of soils for total organic vapors using a photoionization detector (PID). Low levels of total organic vapors were detected in Test pit TP-8 of 10.1 parts ppm. Test pit locations are shown on Figure 2, photos are included in the photograph section of this report, and test pit logs are included in Appendix C.

### 6.0 GROUNDWATER MONITORING WELL INSTALLATION

Overburden groundwater monitoring wells, MW-1, MW-2, and MW-3, were installed for environmental data collection in completed soil borings B-3/MW-1, B-5/MW-2, and B-4/MW-3. Each monitoring well was screened approximately two feet above the groundwater table. The monitoring wells were constructed with 2-inch inside diameter schedule 40 PVC well screens of 0.010-inch slot size. Each 10-foot length of well screen was connected to well casing that extends to the ground surface. The monitoring wells were used to measure the depth to groundwater, observe for the presence or absence of floating and sinking non-aqueous phase liquids and allow for collection of overburden groundwater samples.



Each monitoring well was completed with a sand pack extending above the well screen and the remaining borehole annulus was backfilled with bentonite and cement grout. The well casing extends above the ground surface approximately 3 feet on each monitoring well. The actual design of these wells was determined based on field conditions encountered with recommendations from the Bergmann Geologist. Well completion details are presented on each monitoring well log, see Appendix C. The locations of the monitoring wells are shown on Figure 2. Each monitoring well was developed to remove sediments from the well water prior to collection of ground water samples.

After removing the well cap for sampling, the depth to water in each well was measured to the nearest hundredth of a foot using an electronic water-level indicator. The immersed portion of the indicator was decontaminated between measurements with a solution of non-phosphate detergent, followed by a tap water rinse to avoid cross contamination between wells. After collection of the depth to groundwater measurements the well was checked for the presence of light non-aqueous phase liquid (LNAPL) and dense non-aqueous phase liquid (DNAPL). Monitoring wells were purged immediately prior to sampling using a disposable bailer. The wells were purged until three well volumes were removed, or until dry. Field parameters including pH, temperature, specific conductivity, and turbidity were recorded prior to sampling using a field calibrated meter. Field measurements were recorded on a groundwater sampling log, included in Appendix C.

After purging was complete, a disposable bailer was used to collect the groundwater samples. The bailer was slowly lowered into the well using new nylon rope, the line was lowered by hand until immersed within the well, and the bailer was raised by hand to the surface. New disposable gloves were worn during sample collection and discarded after use. Water from the bailer was carefully transferred to the sample bottles to minimize aeration of the sample, all sample bottle caps were secured snugly, and the bailers and rope were discarded after sampling each well.

## 7.0 GROUNDWATER SAMPLE ANALYTICAL RESULTS

Groundwater samples were collected from 3 monitoring wells MW-1, MW-2, and MW-3. Groundwater sample results were non-detect for VOCs, SVOCs (B/N), total cyanide, pesticides, and PCBs. Groundwater samples showed low levels of metals above NYSDEC Groundwater Standards. Iron was detected in MW-1, MW-2, and MW-3 above NYSDEC Groundwater Standards. Manganese was detected in MW-1 and MW-2 above NYSDEC part 703.5 Groundwater Standards. Sodium was detected in MW-3 above NYSDEC Groundwater Standards.

## 8.0 SUMMARY AND CONCLUSIONS

The following summary and conclusions are based on the Phase II ESA field sample screening, observations and laboratory sample results. The results are preliminary and subject to change when further investigation is completed in the future. The findings are from limited sampling locations and sample collection and subject to our limitations (see Appendix E – Limitations).

- There were 4 soil deposits encountered in the soil boring locations that includes a Coal ash, Historic fill, Lacustrine, and Glacial till. There were two filling events that include historic made lands from approximate rely 1893 to 1952 by filling (Historic fill) sections of Beacon Island, Cabbage Island and the Norman's kill (Castle Creek). The second filling event, from approximately 1952 to 1974, includes the waste disposal of coal ash from power company's onsite as a landfill.
- Heavy metals are a contaminant of concern (COC) in the coal ash as evaluated in surface and subsurface soils. The levels of heavy metals exceed Part 375 Unrestricted Use SCOs.
- Heavy metals are a contaminant of concern (COC) in the sediment samples. The levels generally indicate





NYSDEC Class B moderately impacted sediments. The heavy metals detected in the sediment samples are the same metals detected on the coal ash samples.

- The groundwater appears to be non-impacted by VOCs, SVOCs, pesticides, cyanide and PCBs. Metals that include Iron and Manganese were detected in the groundwater at levels that exceed the NYSDEC part 703.5 groundwater standards.

## 9.0 RECOMMENDATIONS

The following recommendations are based on the Phase II ESA field sample screening, observations and laboratory sample results. The results are preliminary and subject to change when further investigation is completed in the future. The findings are from limited sampling locations and sample collection and subject to our limitations (see Appendix E – Limitations).

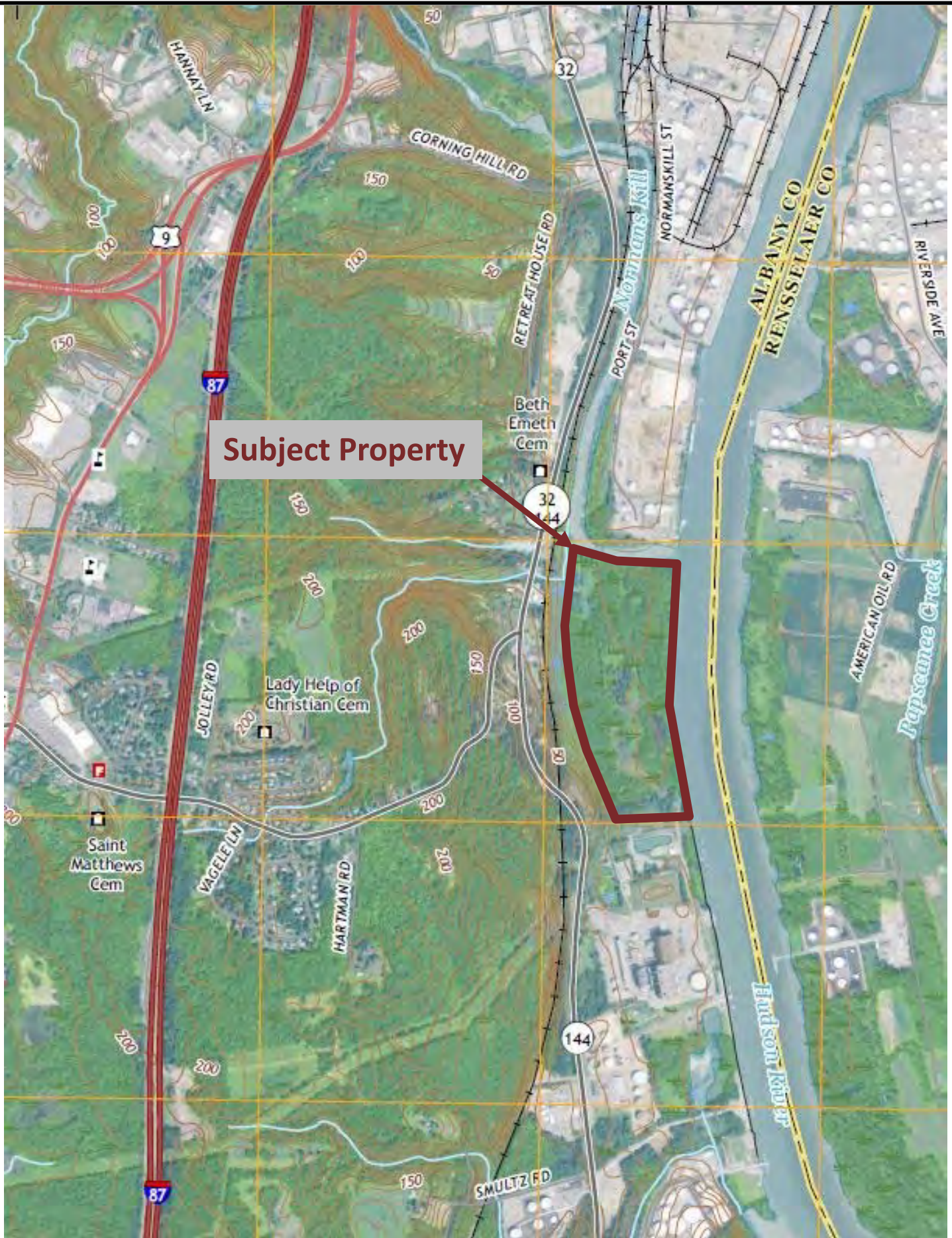
- Bergmann recommends further investigation of sediment media to evaluate and confirm the levels of heavy metals detected in the limited sediment testing completed.
- The coal ash is impacted with heavy metals that exceed Unrestricted Use SCOs and protection of Groundwater levels. The coal ash is regulated waste and must be managed according to state and federal regulations for off-site disposal. The coal ash may be granted a beneficial re-used determination (BUD) by NYSDEC.
- Ownership of this coal ash landfill is subject to state and federal regulations. Future development of this site would require agency approvals for soil management and remediation to allow for a planned re-use. All regulations governing coal ash landfills should be reviewed prior to purchase and redevelopment.
- Special health and safety requirements regarding coal ash during future development should also be reviewed prior to purchase and construction.
- The abandoned rail cars and abandoned drums should be removed from the Site prior to purchase. The abandon drums should be removed and documented by a qualified environmental contactor.



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**FIGURES**







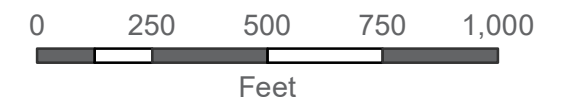
# PORT OF ALBANY

Beacon Island





Glenmont, NY

## Figure 2

### Phase II ESA Investigative Locations



#### Legend

-  Monitoring Well
-  Soil Boring
-  Sediment Sample
-  Test Pit





TABLES

ET

DRY



**TABLE 1 Surface Soil Analysis Summary**  
**Metals and Total Cyanide**  
 Port of Albany – Phase II ESA Report  
 Albany, New York

Metals and Cyanide Page 1 of 2	B-1 (0-2 inch)	B-2 (0-2 inch)	B-3 (0-2 inch)	B-4 (0-2 inch)	B-5 (0-2 inch)	B-6 (0-2 inch)	B-7 (0-2 inch)	B-8 (0-2 inch)	NYSDEC Unrestricted Use Soil Cleanup Objectives	Protection of Groundwater
Aluminum	13,700	12,400	10,200	16,200	18,000	22,200	14,500	12,700	-	-
Antimony	<4.20	<4.49	<3.37	<7.31	<3.54	<6.76	<5.05	<3.44	-	-
Arsenic	<b>33.4</b>	<b>44.7</b>	6.87	<b>44.9</b>	<b>26.8</b>	<b>71.5</b>	<b>32.4</b>	5.01	13	16
Barium	<b>419</b>	<b>383</b>	93.1	<b>447</b>	<b>399</b>	<b>576</b>	<b>369</b>	86.8	350	820
Beryllium	1.39	1.81	0.565	2.01	1.36	2.31	2.07	0.629	7.2	47
Cadmium	<0.350	1.01	<0.280	<0.609	1.50	<0.563	<0.421	<0.287	2.5	7.5
Calcium	6,130	6,590	10,500	9,670	6,020	8,080	5,330	7,020	-	-
Chromium	20.3	20.3	12.8	28.0	19.0	<b>30.1</b>	24.7	16.1	30	-
Cobalt	9.28	9.39	7.84	9.38	10.5	10.8	10.7	8.65	-	-
Copper	18.5	24.0	18.4	25.4	26.5	24.8	25.7	19.6	50	1,720
Iron	44,800	32,200	22,100	29,500	78,900	29,700	24,000	20,500	-	-
Lead	7.37	9.76	11.4	17.8	7.45	16.9	16.6	25.6	63	450
Magnesium	2,310	1,350	6,260	2,110	1,110	2,250	1,260	4,610	-	-
Manganese	135	82.4	350	167	105	129	104	350	1,600	2,000
Mercury	0.123	0.140	0.0449	<b>0.255</b>	0.0395	0.155	0.153	0.0545	0.18	0.73
Nickel	<b>131</b>	18.3	<b>49.3</b>	25.8	19.6	<b>48</b>	<b>221</b>	20.5	30	130
Potassium	1,290	1,230	1,210	1,870	1,610	2,180	1,340	1,430	-	-
Selenium	<0.699	3.74	<1.12	<1.22	<0.591	<2.25	<1.68	<1.15	3.9	4
Silver	<0.699	3.98	1.77	<1.22	<b>8.95</b>	<b>3.01</b>	<b>2.40</b>	1.64	2	8.3
Sodium	425	521	<140	978	677	578	395	<144	-	-
Thallium	2.50	<1.87	<1.40	<3.05	<1.48	<2.81	<2.11	<1.44	-	-
Vanadium	1,110	39.9	230	66.1	36.8	168	679	21.2	-	-
Zinc	26.1	27.0	41.9	56.0	14.6	36.0	31.2	62.0	109	2,480
Total Cyanide	<0.750	<0.759	<0.382	<1.28	<0.595	<0.884	<0.529	<0.525	27	40

Notes:

1. NA = Not analyzed, ND = Less than laboratory detection limits, B = metal detected in blank, - = No standard. Concentration in shaded background and bold type indicates detection above New York State Department of Environmental Conservation Unrestricted Use Soil Cleanup Objective and exceeds Protection of Groundwater Part 375-6.5 levels.
2. Concentrations are expressed in parts per million (ppm) equivalent to MG/KG.
3. Samples collected by Bergmann Associates on February 14<sup>th</sup>, 15<sup>th</sup> and 20<sup>th</sup> through 23<sup>rd</sup>, 2017 and analyzed by Paradigm Environmental Services, Inc. Rochester, New York (Lab ID # 10958).

**TABLE 2 Subsurface Soil Analysis Summary**  
**Metals and Total Cyanide**  
Port of Albany – Phase II ESA Report  
Albany, New York

Metals and Cyanide Page 2 of 2	B-1 (10-12 ft.)	B-2 (4-6 ft.)	B-3 (2-4 ft.)	B-4 (2-4 ft.)	B-5 (4-6 ft.)	B-6 (4-6 ft.)	B-7 (1-4 ft.)	B-8 (6-8 ft.)	NYSDEC Unrestricted Use Soil Cleanup Objectives	Protection of Groundwater
Aluminum	12,900	19,800	14,100	16,000	15,400	17,200	17,200	7,880	-	-
Antimony	<4.55	< 5.69	<3.57	<5.65	<3.58	<5.21	<6.02	<3.42	-	-
Arsenic	<b>32.8</b>	<b>50.6</b>	12.5	<b>56.0</b>	<b>16.2</b>	<b>57.6</b>	<b>61.4</b>	2.95	13	16
Barium	<b>411</b>	<b>667</b>	224	<b>469.0</b>	280	<b>450</b>	<b>546</b>	41.2	350	820
Beryllium	1.60	2.34	1.02	2.18	1.17	1.89	1.99	0.358	7.2	47
Cadmium	<0.379	1.45	<0.893	<0.471	1.02	<0.434	<0.502	<0.285	2.5	7.5
Calcium	8,890	15,700	6,620	7,770	7,480	6,210	7,150	4,210	-	-
Chromium	20.9	<b>30.3</b>	12.9	26.9	14.7	25.6	<b>34.9</b>	9.32	30	-
Cobalt	7.35	13.0	6.99	9.33	8.51	8.22	8.93	6.87	-	-
Copper	25.2	25.4	16.7	24.4	24.4	20.1	23.9	8.52	50	1,720
Iron	27,100	46,400	43,100	21,500	57,100	21,200	15,400	14,600	-	-
Lead	9.71	13.2	4.98	14.7	8.72	15.0	15.9	7.29	63	450
Magnesium	1,220	2,450	991	1,630	1,430	1,640	1,700	3,720	-	-
Manganese	61.7	121	77.8	78.0	137	96.6	110	223	1,600	2,000
Mercury	0.0946	0.160	0.0130	<b>0.235</b>	0.0551	0.148	<b>0.197</b>	0.0224	0.18	0.73
Nickel	17.0	24.7	14.9	19.4	21.7	<b>32.1</b>	<b>67.8</b>	13.8	30	130
Potassium	1,160	1,570	1,270	1,600	1,460	1,730	1,670	936	-	-
Selenium	3.83	8.04	<1.19	1.78	4.94	<1.74	<2.01	<1.14	3.9	4
Silver	<0.758	5.52	<b>3.69</b>	<0.942	<b>6.18</b>	1.78	1.38	1.39	2	8.3
Sodium	607	1,110	528	824	569	480	674	<143	-	-
Thallium	2.58	<2.37	<1.49	<2.35	<1.49	<2.17	<2.51	<1.43	-	-
Vanadium	1,200	54.3	26.2	49.9	41.4	135	372	13.4	-	-
Zinc	25.3	29.6	9.37	35.7	24.4	30.2	31.3	39.0	109	2,480
Total Cyanide	<0.683	<0.928	<0.589	<0.712	< 0.496	<0.711	<0.689	<0.487	27	40

Notes:

1. NA = Not analyzed, ND = Less than laboratory detection limits, B = metal detected in blank, - = No standard. Concentration in shaded background and bold type indicates detection above New York State Department of Environmental Conservation Unrestricted Use Soil Cleanup Objective and exceeds Protection of Groundwater Part 375-6.5 levels.
2. Concentrations are expressed in parts per million (ppm) equivalent to MG/KG.
3. Samples collected by Bergmann Associates on February 14<sup>th</sup>, 15<sup>th</sup> and 20<sup>th</sup> through 23<sup>rd</sup>, 2017 and analyzed by Paradigm Environmental Services, Inc. Rochester, New York (Lab ID # 10958).



**TABLE 3 Groundwater Sample Analysis Summary  
Metals**

Port of Albany – Phase II ESA Report  
Albany, New York

Metals	MW-1	MW-2	MW-3	NYSDEC Groundwater Standards
Aluminum	ND	601	1,090	-
Antimony	ND	ND	ND	3
Arsenic	ND	ND	20.8	25
Barium	176	ND	321	1,000
Beryllium	ND	ND	ND	-
Cadmium	ND	ND	ND	5
Calcium	231,000	225,000	133,000	-
Chromium	ND	ND	ND	50
Cobalt	ND	ND	ND	-
Copper	ND	ND	ND	200
Iron	<b>12,900</b>	<b>25,400</b>	<b>1,470</b>	300
Lead	ND	ND	ND	25
Magnesium	45,500	26,000	14,000	-
Manganese	<b>413</b>	<b>1,550</b>	46.3	300
Mercury	ND	ND	ND	0.7
Nickel	ND	ND	ND	100
Potassium	3,230	7,390	ND	-
Selenium	ND	ND	ND	10
Silver	ND	ND	ND	50
Sodium	4,380	11,900	<b>142,000</b>	20,000
Thallium	ND	ND	ND	-
Vanadium	ND	ND	ND	-
Zinc	ND	ND	ND	-

Notes:

1. ND = Less than laboratory detection limits, - = No standard.
2. Concentration in **bold type** indicates detection above New York State Department of Environmental Conservation groundwater standards.
3. Concentrations of metals are expressed in parts per billion (ppb) equivalent to ug/l.
4. Samples collected by Bergmann Associates on March 27-28, 2017, analyzed by Paradigm Environmental Services, Inc., Rochester, New York (Lab ID # 10958).
5. NYSDEC groundwater standards 703.5 and June 1998 Division of Technical and Operational guidance series T.O.G.S. 1.1.1 and as amended April 2000.

Table 4 - Sediment Analysis Summary - Metals

Sample ID				Sed-1	Sed-2	Sed-3		
Lab Sample Number				171020-01	171020-02	171020-02		
Sampling Date				3 9 17	3 9 17	3 9 17		
Matrix				Sediment	Sediment	Sediment		
Units	NYSDEC Class A ppm	Available Low Effects Levels ppm	Available Severe Effects Levels ppm	mg/Kg	mg/Kg	mg/Kg	NYSDEC Class B ppm	NYSDEC Class C ppm
COMPOUND								
Aluminum	NS	NS	NS	6870	6780	13300		
Antimony	NS	2	25	<3.70 U	<4.43 U	3.17		
Arsenic	<10	6	33	3.55	3.52	11.2		
Barium	NS	NS	NS	47.2	87.9	162		
Beryllium	NS	NS	NS	0.395	0.4	0.879		
Cadmium	<1	0.6	9	<0.309 U	0.462	1	1 to 5	
Calcium	NS	NS	NS	3760	7460	5380		
Chromium	<43	26	110	11.6	16.6	24.9		
Cobalt	NS	NS	NS	7.11	7.06	8.19		
Copper	<32	16	110	15	16.8	18.1		
Iron	NS	0.02	0.04	15600	14400	57900		
Lead	<36	31	110	18.8	16	11.2		
Magnesium	NS	NS	NS	3020	3740	1910		
Manganese	NS	460	1100	251	386	284		
Mercury	<0.2	0.15	1.3	0.093	0.0396	0.0249		
Nickel	<23	16	50	15.8	19	30.8	23 to 49	
Potassium	NS	NS	NS	1310	1230	1160		
Selenium	NS	NS	NS	<0.617 U	<0.738	<0.491		
Silver	<1	1	2.2	15.8	<0.738 U	<0.491	1 to 2.2	>2.2
Sodium	NS	NS	NS	<154 U	<184	463		
Thallium	NS	NS	NS	<1.54 U	<1.84 U	<1.23		
Vanadium	NS	NS	NS	18.6	22.4	62.2		
Zinc	<120	120	270	71.4	126	41.5	120 to 460	

**Qualifiers**

Note: Bold shaded indicated detection above method limits, bold typ and gray shading indicate Class B sediment levels, blue shade are Class C.

N (Organics) - Presumptive Evidence of a Compound

N (Inorganics) - The matrix spike recovery was outside control limits

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than A. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

\* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

\* (Inorganics) - The sample/duplicate %RPD was above the control limit.

E (Organics) - Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

Q - indicates LCS control criteria did not meet requirements.

NR - Not analyzed

Table 5 - Sediment Analysis Summary - Pesticides

Sample ID			Sed-1	Sed-2	Sed-3
Lab Sample Number			171020-01	171020-02	171020-03
Sampling Date			3/9/2017	3/9/2017	11/19/2013
Matrix			Sediment	Sediment	Sediment
Units			ug/kg	ug/kg	ug/kg
COMPOUND	CAS #	NYSDEC Class A			
alpha-BHC	319-84-6	NS	2.20 U	2.10 U	1.80 U
beta-BHC	319-85-7	NS	2.20 U	2.10 U	1.80 U
delta-BHC	319-86-8	NS	2.20 U	2.10 U	1.80 U
gamma-BHC (Lindane)	58-89-9	NS	2.20 U	2.10 U	1.80 U
Heptachlor	76-44-8	NS	2.20 U	2.10 U	1.80 U
Aldrin	309-00-2	NS	2.20 U	2.10 U	1.80 U
Heptachlor epoxide	1024-57-3	<15	<b>9.25</b>	2.10 U	1.80 U
Endosulfan I	959-98-8	<1	2.20 U	2.10 U	1.80 U
Dieldrin	60-57-1	<180	2.20 U	<b>4.96</b>	1.80 U
4,4-DDE	72-55-9	<3.2	2.20 U	2.10 U	1.80 U
Endrin	72-20-8	<90	2.20 U	2.10 U	1.80 U
Endosulfan II	33213-65-9	<1	2.20 U	2.10 U	1.80 U
4,4-DDD	72-54-8	<4.9	2.20 U	2.10 U	1.80 U
Endosulfan Sulfate	1031-07-8	NS	2.20 U	2.10 U	1.80 U
4,4-DDT	50-29-3	<4.2	2.20 U	2.10 U	1.80 U
Methoxychlor	72-43-5	<59	<b>7.87</b>	<b>13.4</b>	1.80 U
Endrin ketone	53494-70-5	NS	<b>3.95</b>	2.10 U	1.80 U
Endrin aldehyde	7421-93-4	NS	<b>5.93</b>	<b>5.13</b>	<b>2.91</b>
alpha-Chlordane	5103-71-9	NS	2.20 U	2.10 U	1.80 U
gamma-Chlordane	5103-74-2	NS	2.20 U	2.10 U	1.80 U
Toxaphene	8001-35-2	<6	21.9 U	20.8 U	18.0 U

## Total TICs

## Qualifiers

Notes: Bold type indicates detection above method detection limits.

N (Organics) - Presumptive Evidence of a Compound

N (Inorganics) - The matrix spike recovery was outside control limits

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

\* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

\* (Inorganics) - The sample/duplicate %RPD was above the control limit.

E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

Q - indicates LCS control criteria did not meet requirements.

NR - Not analyzed

**APPENDIX A  
PHOTOGRAPHS**

DRAFT





CME Drill Rig – B-4 Location.



Hollow Stem Auger at B-4 Location.







Coal Ash Material – B-4 Location.



Split-spoon Sampler.







Test Pit 1.



Test Pit 2.







Test Pit 3.



Test Pit 4.







Test Pit 5.



Test Pit 6.







Test Pit 7.



Test Pit 8.







Test Pit 9.



Test Pit 10.







Test Pit 11.



Test Pit 12.







Kobelco Excavator.



Temporary Monitoring Well MW-1.







Temporary Monitoring Well MW-2.



Temporary Monitoring Well MW-3.





**APPENDIX B**  
**HISTORIC TOPOGRAPHIC MAPS**

DRAFT



Port of Albany  
Beacon Island  
Glenmont, NY 12077

Inquiry Number: 4818228.4

January 03, 2017

# EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# EDR Historical Topo Map Report

01/03/17

**Site Name:**

Port of Albany  
Beacon Island  
Glenmont, NY 12077  
EDR Inquiry # 4818228.4

**Client Name:**

Bergmann Associates  
280 East Broad Street, Suite 200  
Rochester, NY 14604  
Contact: Megan Borruso



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Bergmann Associates were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

**Search Results:**

**Coordinates:**

<b>P.O.#</b>	012084.00	<b>Latitude:</b>	42.603359 42° 36' 12" North
<b>Project:</b>	Port of Albany	<b>Longitude:</b>	-73.765908 -73° 45' 57" West
		<b>UTM Zone:</b>	Zone 18 North
		<b>UTM X Meters:</b>	601234.06
		<b>UTM Y Meters:</b>	4717508.08
		<b>Elevation:</b>	9.00' above sea level

**Maps Provided:**

2013	1893
1980	
1953	
1950	
1947	
1927, 1928	
1898	
1895	

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## Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 2013 Source Sheets



East Greenbush  
2013  
7.5-minute, 24000



Albany  
2013  
7.5-minute, 24000



Troy South  
2013  
7.5-minute, 24000



Delmar  
2013  
7.5-minute, 24000

### 1980 Source Sheets



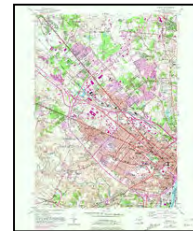
East Greenbush  
1980  
7.5-minute, 24000  
Photo Revised 1980  
Aerial Photo Revised 1952



Troy South  
1980  
7.5-minute, 24000  
Photo Revised 1980  
Aerial Photo Revised 1978



Delmar  
1980  
7.5-minute, 24000  
Photo Revised 1980  
Aerial Photo Revised 1978



Albany  
1980  
7.5-minute, 24000  
Photo Revised 1980  
Aerial Photo Revised 1978

### 1953 Source Sheets



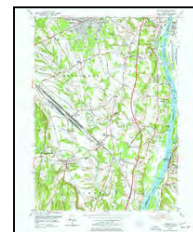
Troy South  
1953  
7.5-minute, 24000  
Aerial Photo Revised 1952



Albany  
1953  
7.5-minute, 24000  
Aerial Photo Revised 1952



East Greenbush  
1953  
7.5-minute, 24000  
Aerial Photo Revised 1952

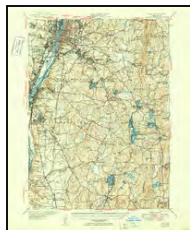


Delmar  
1953  
7.5-minute, 24000  
Aerial Photo Revised 1952

### 1950 Source Sheets



Albany  
1950  
15-minute, 62500  
Edited 1947



Troy  
1950  
15-minute, 62500  
Edited 1947

## Topo Sheet Key

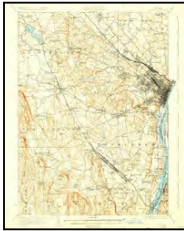
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 1947 Source Sheets

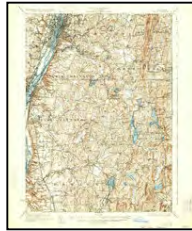


Albany  
1947  
15-minute, 62500  
Edited 1947

### 1927, 1928 Source Sheets



Albany  
1927  
15-minute, 62500



Troy  
1928  
15-minute, 62500

### 1898 Source Sheets



Troy  
1898  
15-minute, 62500

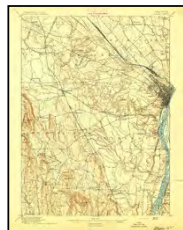


Albany  
1898  
15-minute, 62500

### 1895 Source Sheets



Troy  
1895  
15-minute, 62500



Albany  
1895  
15-minute, 62500

## ***Topo Sheet Key***

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### **1893 Source Sheets**

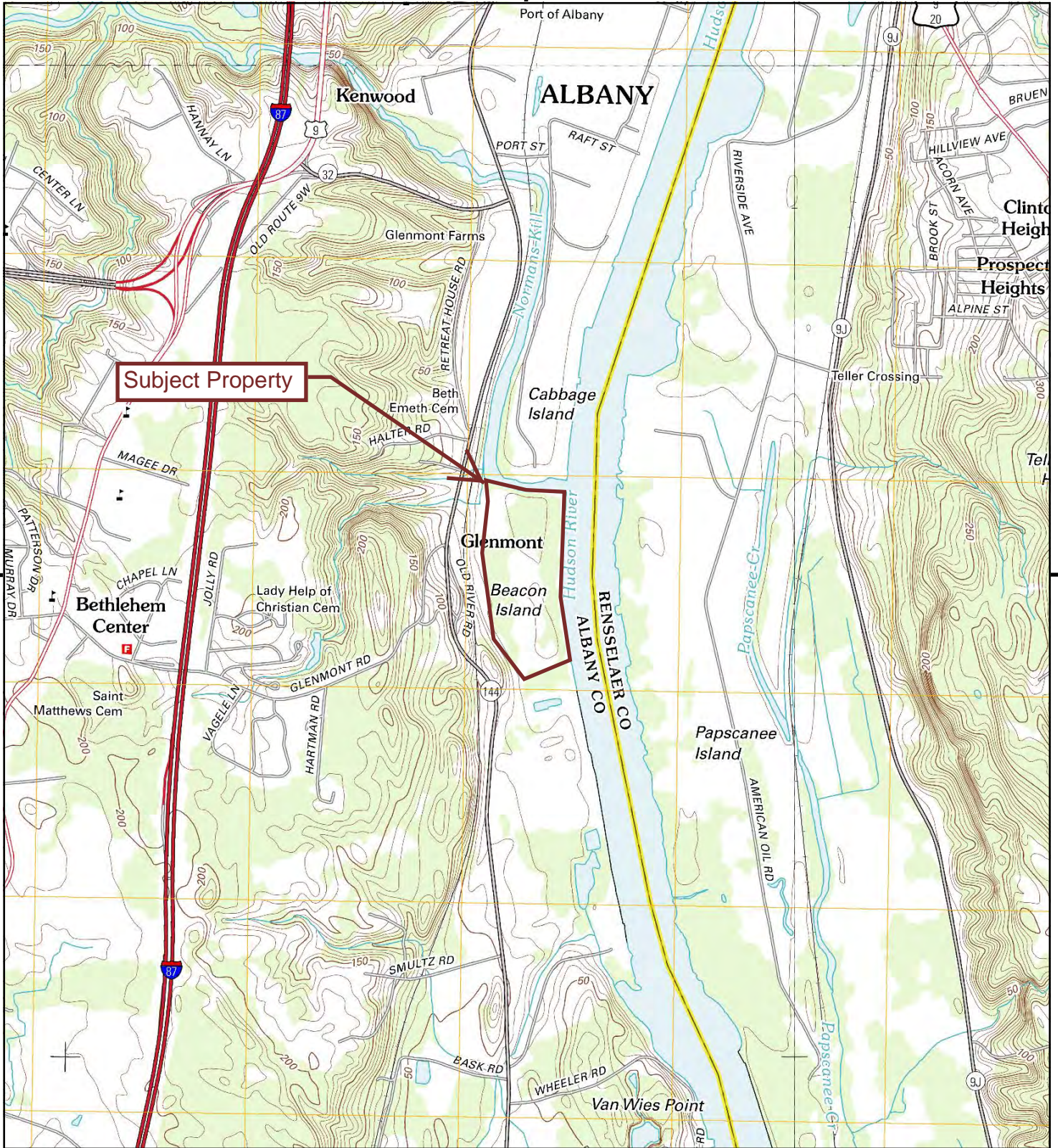


Troy  
1893  
15-minute, 62500

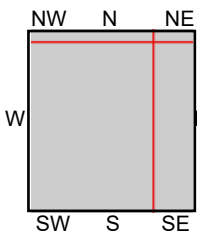


Albany  
1893  
15-minute, 62500





This report includes information from the following map sheet(s).



TP, Delmar, 2013, 7.5-minute  
 N, Albany, 2013, 7.5-minute  
 NE, Troy South, 2013, 7.5-minute  
 SE, East Greenbush, 2013, 7.5-minute

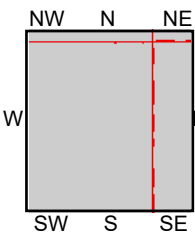
**SITE NAME:** Port of Albany  
**ADDRESS:** Beacon Island  
 Glenmont, NY 12077  
**CLIENT:** Bergmann Associates







This report includes information from the following map sheet(s).

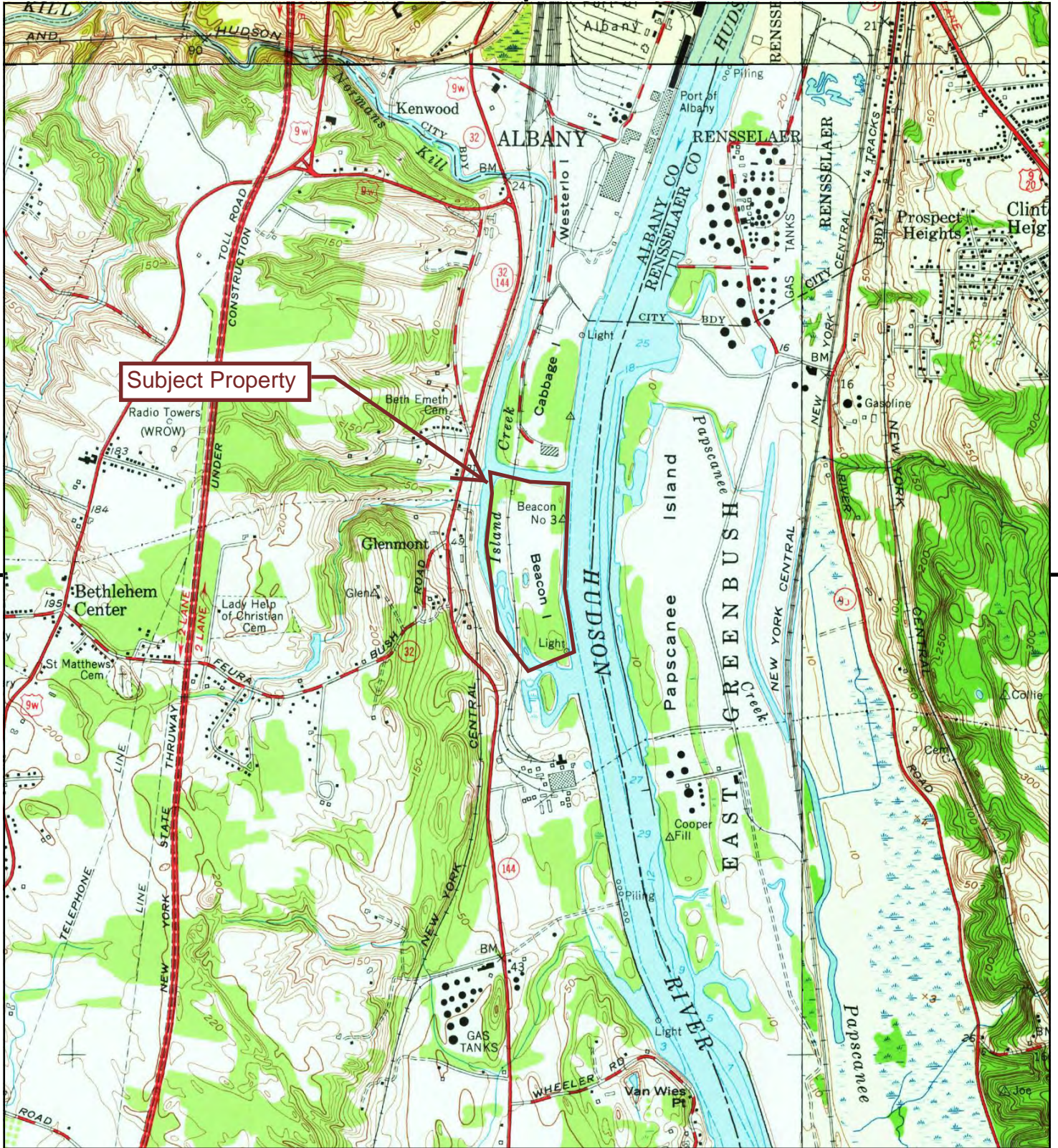


TP, Delmar, 1980, 7.5-minute  
 N, Albany, 1980, 7.5-minute  
 NE, Troy South, 1980, 7.5-minute  
 SE, East Greenbush, 1980, 7.5-minute

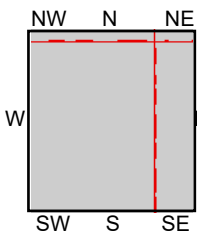
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 ADDRESS: Beacon Island  
 Glenmont, NY 12077  
 CLIENT: Bergmann Associates







This report includes information from the following map sheet(s).

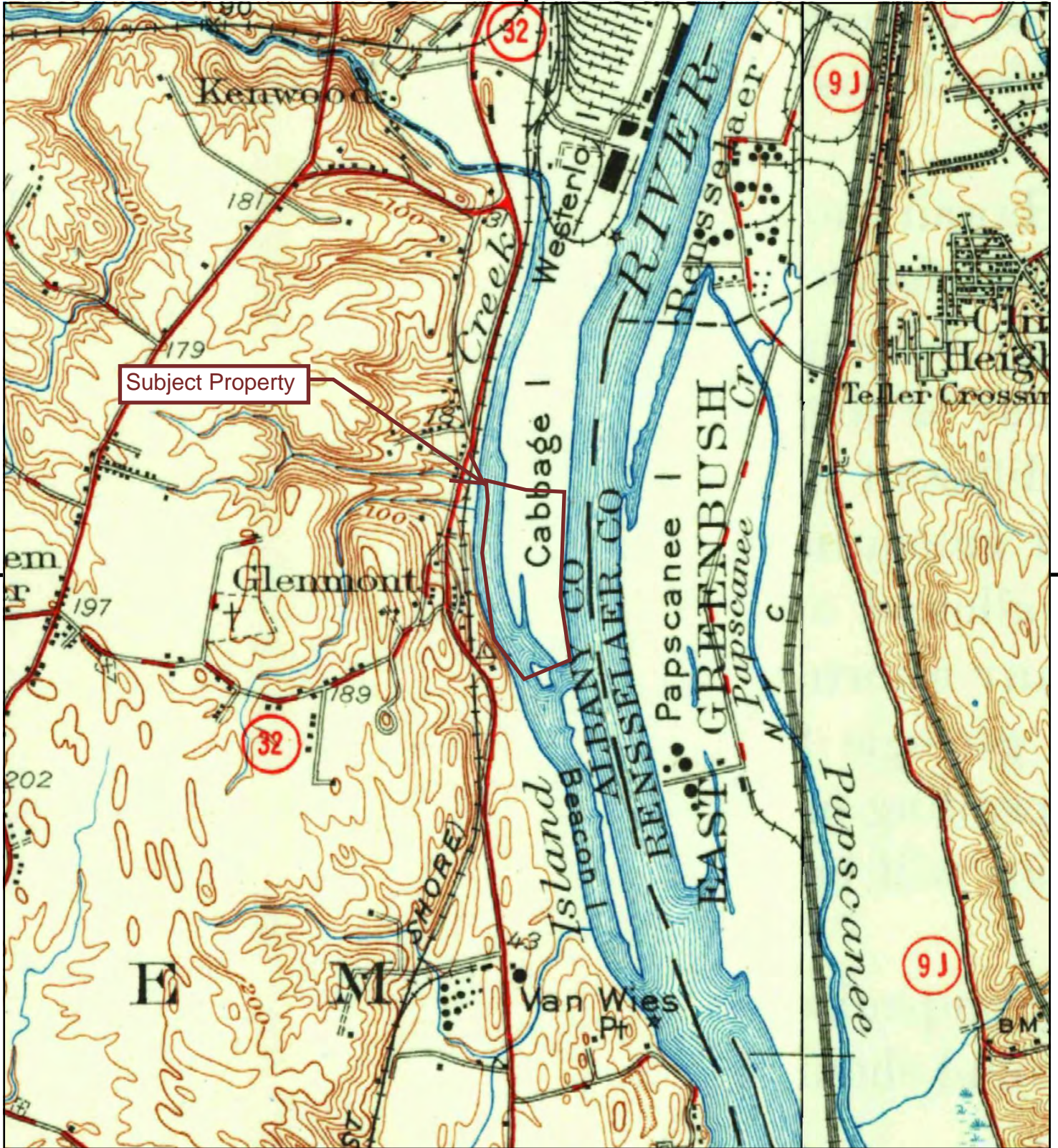


TP, Delmar, 1953, 7.5-minute  
 N, Albany, 1953, 7.5-minute  
 NE, Troy South, 1953, 7.5-minute  
 SE, East Greenbush, 1953, 7.5-minute

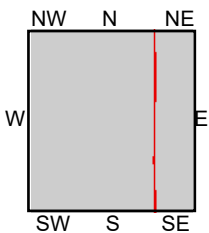
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 ADDRESS: Beacon Island  
 Glenmont, NY 12077  
 CLIENT: Bergmann Associates







This report includes information from the following map sheet(s).



TP, Albany, 1950, 15-minute  
E, Troy, 1950, 15-minute

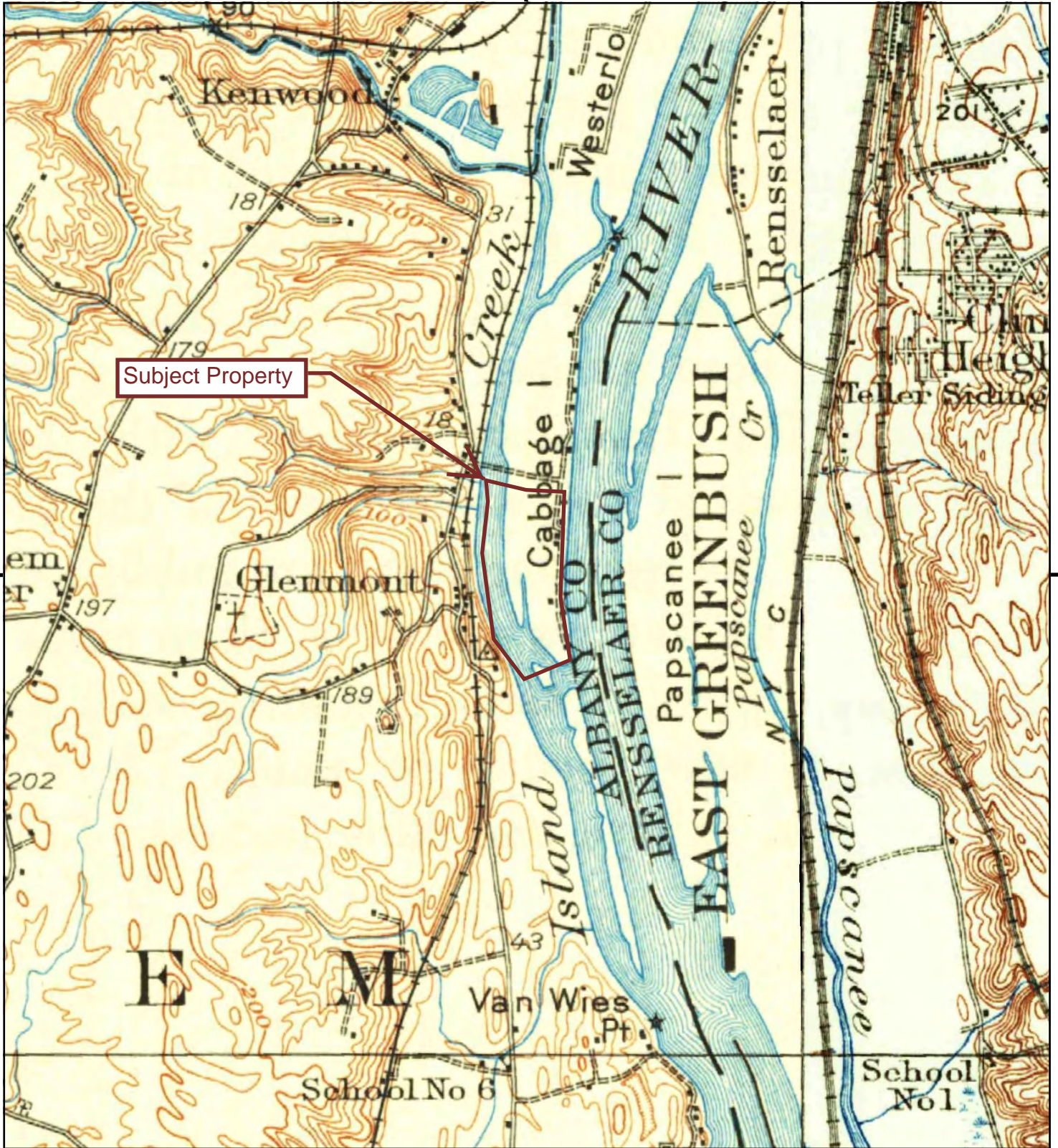
SITE NAME: Port of Albany  
ADDRESS: Beacon Island  
Glenmont, NY 12077  
CLIENT: Bergmann Associates



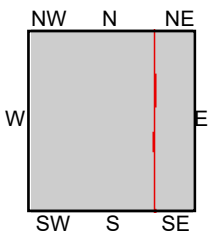








This report includes information from the following map sheet(s).

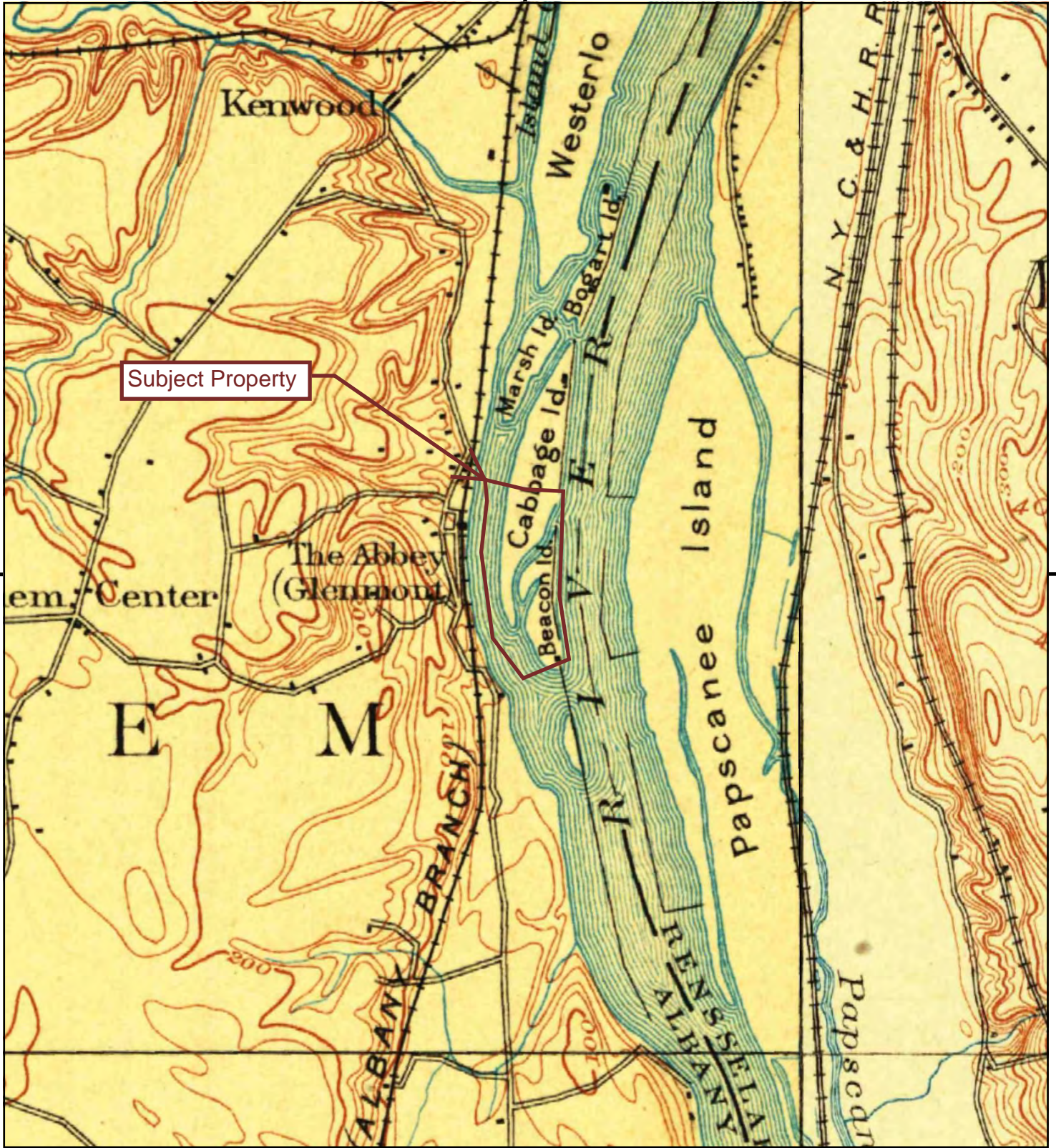


TP, Albany, 1927, 15-minute  
E, Troy, 1928, 15-minute

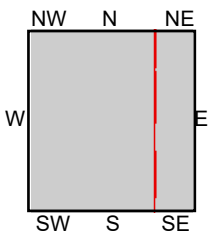
SITE NAME: Port of Albany  
ADDRESS: Beacon Island  
Glenmont, NY 12077  
CLIENT: Bergmann Associates







This report includes information from the following map sheet(s).

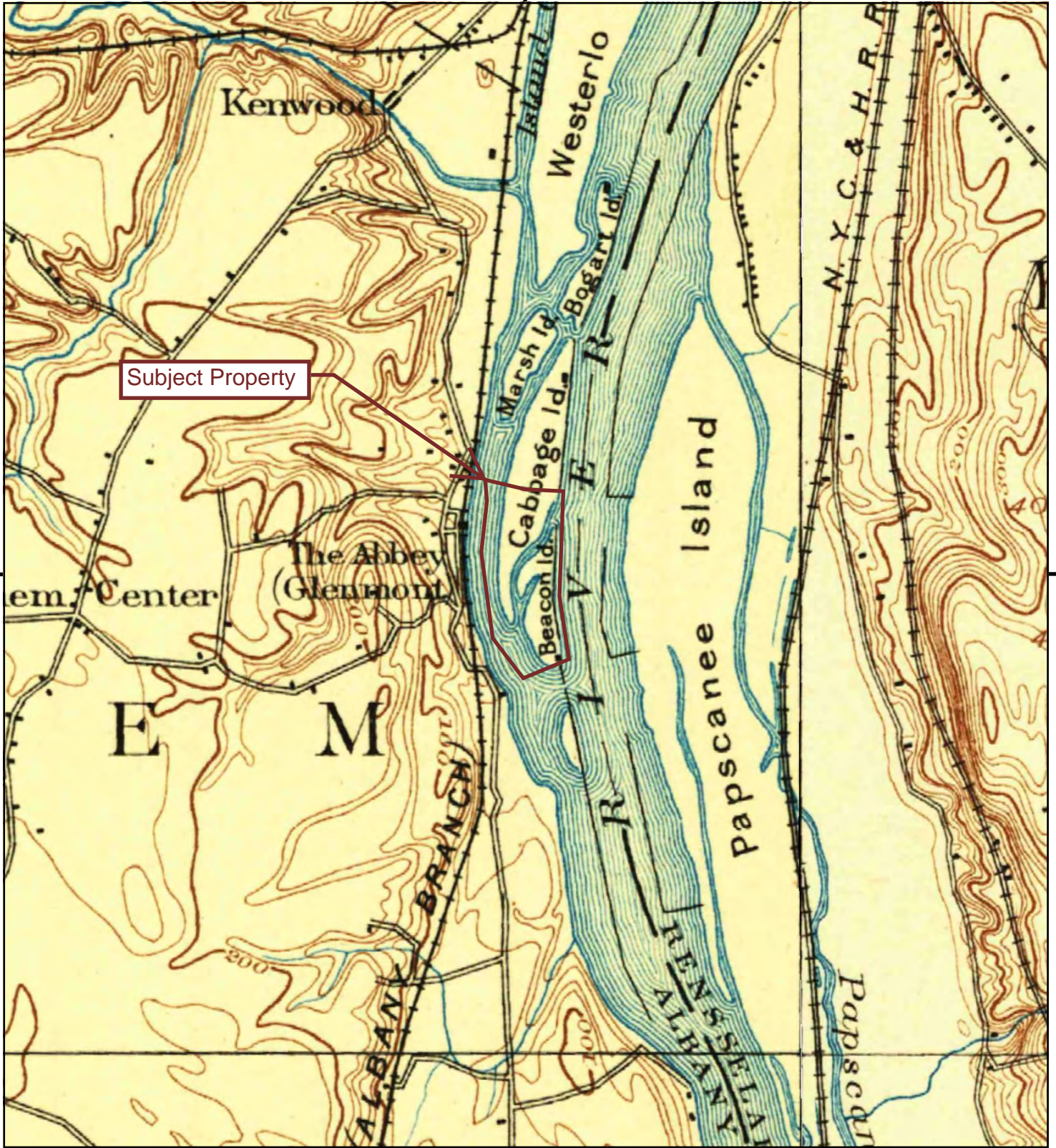


TP, Albany, 1898, 15-minute  
E, Troy, 1898, 15-minute

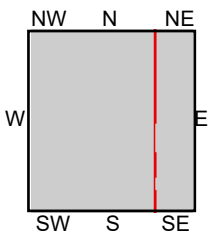
SITE NAME: Port of Albany  
ADDRESS: Beacon Island  
Glenmont, NY 12077  
CLIENT: Bergmann Associates







This report includes information from the following map sheet(s).

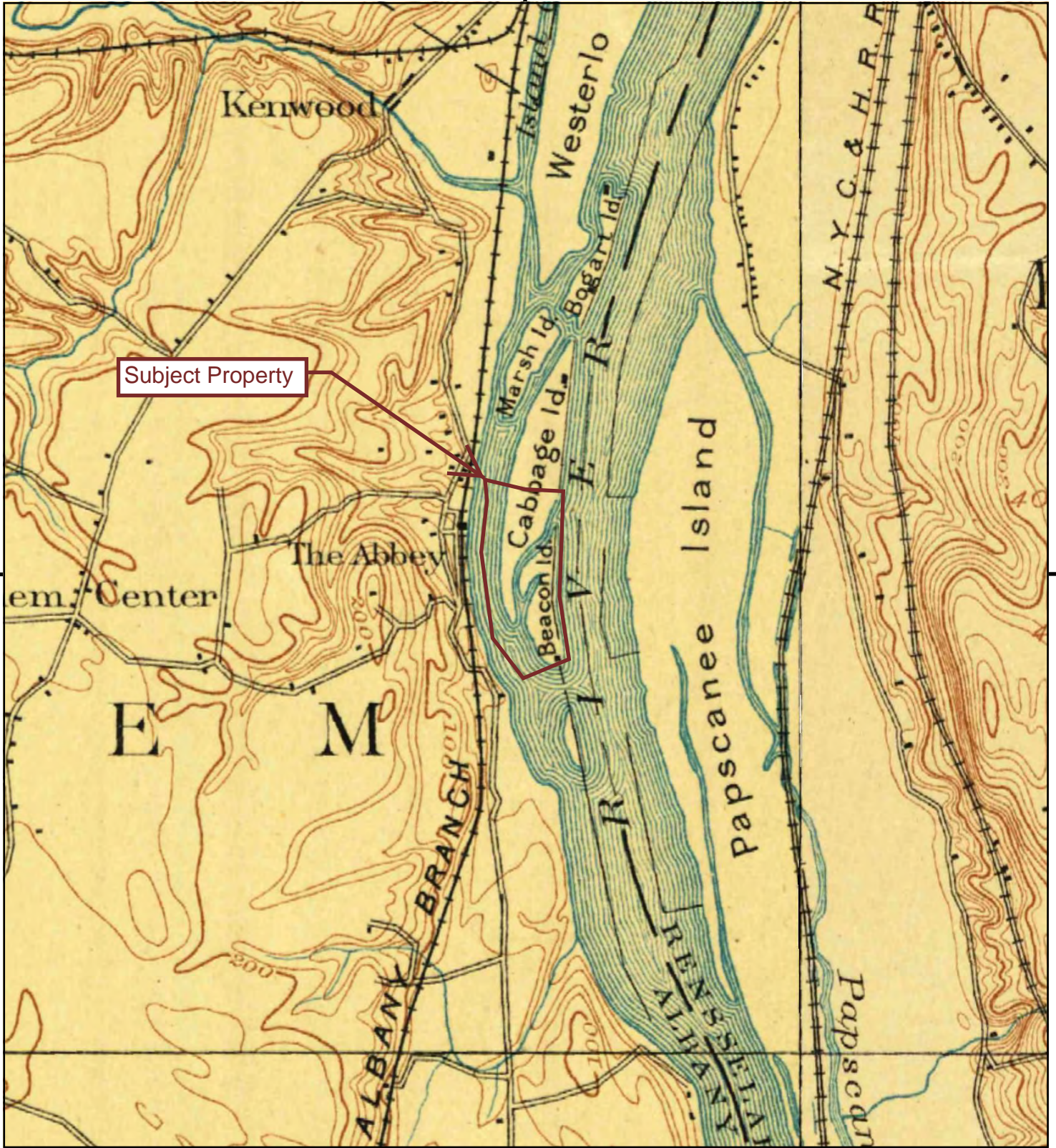


TP, Albany, 1895, 15-minute  
E, Troy, 1895, 15-minute

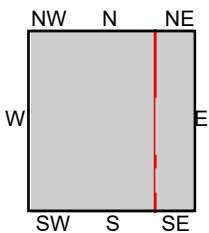
SITE NAME: Port of Albany  
ADDRESS: Beacon Island  
Glenmont, NY 12077  
CLIENT: Bergmann Associates







This report includes information from the following map sheet(s).



TP, Albany, 1893, 15-minute  
E, Troy, 1893, 15-minute

SITE NAME: Port of Albany  
ADDRESS: Beacon Island  
Glenmont, NY 12077  
CLIENT: Bergmann Associates



**APPENDIX C**  
**FIELD LOGS**

DRAFT



































## SOIL BORING LOG



**BORING/WELL NUMBER: B-1**

PROJECT: PORT OF ALBANY Project No: 12084.00  
 Start Date: 2/15/2017 Finish Date: 2/16/2017 Top of Well: \_\_\_\_\_  
 Driller: CME Associates Boring Location: See Plan  
 Inspector: M. Borruso  
 Drilling Method: Hollow Stem Auger with Split-Spoon Sampling  
 Geographic Location (Lat, Long): 42.599690°, -73.763856°  
 Weather Conditions: Clear, 30°F

DEPTH	BLOWS ON SAMPLER				SAMPLE		DESCRIPTION	VOC Screening (ppm)	NOTES
	SEE GEOTECHNICAL BORING LOGS				Name	Depth			
0					B-1 (0-2)	0-2	Black Fine COAL ASH, some silt.	0.0	
2						2-4	Same as above (SAA).	0.0	
4						4-6	Black Fine COAL ASH, some silt, trace wood fragments.	0.0	
6						6-8	Black Fine COAL ASH, some silt.	0.0	
8						8-10	Black Fine COAL ASH, some silt.	0.0	Metallic Odor.
10					B-1 (10-12)	10-12	Black Fine COAL ASH, some silt.	0.0	Wet at bottom. Metallic Odor.
12						12-14	See Geotechnical boring logs for remainder of descriptions to 100 ft bgs.	0.0	Water encountered at 12.9'
14						14-16		0.0	
16						16-18		0.0	
18						18-20		0.0	
20						20-22		0.0	
22						22-24		0.0	
24						24-26		0.0	
26									

Notes: 1420: Sample B-1 (0-2) collected from 2'-0" - surface sample.  
1430: Sample B-1 (10-12) collected from above water table.  
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 \_\_\_\_\_  
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## SOIL BORING LOG



**BORING/WELL NUMBER:** B-2

PROJECT: PORT OF ALBANY Project No: 12084.00  
 Start Date: 2/27/2017 Finish Date: 2/27/2017 Top of Well: \_\_\_\_\_  
 Driller: CME Associates Boring Location: See Plan  
 Inspector: M. Borruso  
 Drilling Method: Hollow Stem Auger with Split-Spoon Sampling  
 Geographic Location (Lat, Long): 42.602393°, -73.767286°  
 Weather Conditions: Cloudy, 40°F

DEPTH	BLOWS ON SAMPLER				SAMPLE		DESCRIPTION	VOC Screening (ppm)	NOTES
	SEE GEOTECHNICAL BORING LOGS				Name	Depth			
0					B-2 (0-2)	0-2	Dark Gray Fine COAL ASH, some silt, trace roots.	2.9	
2						2-4	Dark Gray Fine COAL ASH, some silt.	1.7	
4					B-2 (4-6)	4-6	Dark Gray Fine COAL ASH, some silt.	2.2	
6									Water encountered at 6".
8						6-8	Dark Gray Fine COAL ASH, some silt.	0.0	Saturated
10						8-10	See Geotechnical boring logs for remainder of descriptions to 50 ft bgs.	0.0	
12						10-12		0.0	
14						12-14		0.0	
16						14-16		0.0	
18						16-18		0.0	
20						18-20		0.0	
22						20-22		0.0	
24						22-24		0.0	
26						24-26		0.0	

Notes: 1400: Sample B-2 (0-2) collected from 2-0" - surface sample.  
1416: Sample B-2 (4-6) collected from highest PID reading above water table.  
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 \_\_\_\_\_  
 \_\_\_\_\_

## SOIL BORING LOG



**BORING/WELL NUMBER:** B-3/MW-1

**PROJECT:** PORT OF ALBANY **Project No.:** 12084.00  
**Start Date:** 2/20/2017 **Finish Date:** 2/22/2017 **Top of Well:** \_\_\_\_\_  
**Driller:** CME Associates **Boring Location:** See Plan  
**Inspector:** M. Borruso  
**Drilling Method:** Hollow Stem Auger with Split-Spoon Sampling  
**Geographic Location (Lat, Long):** 42.599690°, -73.763856°  
**Weather Conditions:** Clear, 30°F

DEPTH	BLOWS ON SAMPLER				SAMPLE		DESCRIPTION	VOC Screening (ppm)	NOTES
	SEE GEOTECHNICAL BORING LOGS				Name	Depth			
0					B-3 (0-2)	0-2	Black Fine COAL ASH, some sand, little silt, trace gravel.	0.8	Faint odor at bottom of interval.
2					B-3 (2-4)	2-4	Same as above (SAA).	13.7	Slight odor.
4						4-6	SAA	1.2	Slight odor.
6						6-8	Black CLAY, some Silt, little gravel.	0.9	Slight odor.
8						8-10	Black SAND, some clay, little gravel.	0.4	Slight odor.
10						10-12	Brown SAND, some gravel.	0.3	Damp.
12						12-14	SAA	0.1	Damp.
14						14-16	SAA	0.0	Water encountered at 14.9'
16						16-18	See Geotechnical boring logs for remainder of descriptions to 150 ft bgs.	0.0	
18						18-20		0.0	
20						20-22		0.0	
22						22-24		0.0	
24						24-26		0.0	
26									

**Notes:** 1344: Sample B-3 (0-2) collected from 2'-0" - surface sample.  
 1419: Sample B-3 (2-4) collected from highest PID reading above water table.  
 2/28/2017: MW-1 - temporary groundwater monitoring well - installed, 10 feet west of original borehole. 23' total depth, screened interval 12' - 22'.

## SOIL BORING LOG



**BORING/WELL NUMBER:** B-4/MW-3

**PROJECT:** PORT OF ALBANY **Project No.:** 12084.00  
**Start Date:** 2/14/2017 **Finish Date:** 2/15/2017 **Top of Well:** \_\_\_\_\_  
**Driller:** CME Associates **Boring Location:** See Plan  
**Inspector:** M. Borruso  
**Drilling Method:** Hollow Stem Auger with Split-Spoon Sampling  
**Geographic Location (Lat, Long):** 42.605819°, -73.767671°  
**Weather Conditions:** Clear, 20°F

DEPTH	BLOWS ON SAMPLER				SAMPLE		DESCRIPTION	VOC Screening (ppm)	NOTES
	SEE GEOTECHNICAL BORING LOGS				Name	Depth			
0					B-4 (0-2)	0-2	Black Fine COAL ASH, some silt, little clay.	0.0	Moist.
2					B-4 (2-4)	2-4	Grey Fine COAL ASH, some silt, little clay.	0.0	Slight metallic odor.
4						4-6	SAA	0.0	Slight metallic odor. Saturated.
6						6-8	SAA	0.9	
8						8-10	SAA	0.4	
10						10-12	SAA	0.3	
12						12-14	See Geotechnical boring logs for remainder of descriptions to 100 ft bgs.	0.1	
14						14-16		0.0	
16						16-18		0.0	
18						18-20		0.0	
20						20-22		0.0	
22						22-24		0.0	
24						24-26		0.0	
26									

**Notes:** 1330: Sample B-4 (0-2) collected from 2-0" - surface sample.  
 1340: Sample B-4 (2-4) collected from above water table.  
 2/28/2017: MW-3 - temporary groundwater monitoring well - installed, 10 feet north of original borehole. 16' total depth, screened interval 5' - 15'.



## SOIL BORING LOG



**BORING/WELL NUMBER:** B-5/MW-2

PROJECT: PORT OF ALBANY Project No: 12084.00  
 Start Date: 2/27/2017 Finish Date: 2/27/2017 Top of Well:  
 Driller: CME Associates Boring Location: See Plan  
 Inspector: M. Borruso  
 Drilling Method: Hollow Stem Auger with Split-Spoon Sampling  
 Geographic Location (Lat, Long): 42.599163°, -73.765628°  
 Weather Conditions: Clear, 45°F

DEPTH	BLOWS ON SAMPLER				SAMPLE		DESCRIPTION	VOC Screening (ppm)	NOTES
	SEE GEOTECHNICAL BORING LOGS				Name	Depth			
0					B-5 (0-2)	0-2	Dark Brown/Black F-M SAND, some gravel, trace wood.	18.3	
2						2-4	SAA	13.4	
4					B-5 (4-6)	4-6	SAA	22.9	
6						6-8	SAA	7.8	
8						8-10	SAA	7.8	
10						10-12	SAA	2.9	
12						12-14	SAA	2.9	Water encountered at 13.5'.
14						14-16	See Geotechnical boring logs for remainder of descriptions to 50 ft bgs.	0.0	
16						16-18		0.0	
18						18-20		0.0	
20						20-22		0.0	
22						22-24		0.0	
24						24-26		0.0	
26									

Notes: 1200: Sample B-5 (0-2) collected from 2'-0" - surface sample.  
 1244: Sample B-5 (4-6) collected from highest PID reading above water table.  
 2/28/2017: MW-2 - temporary groundwater monitoring well - installed, 1 foot southwest of original borehole. 22' total depth, screened interval 11' - 21'.

## SOIL BORING LOG



**BORING/WELL NUMBER:** B-6

**PROJECT:** PORT OF ALBANY **Project No.:** 12084.00  
**Start Date:** 2/22/2017 **Finish Date:** 2/22/2017 **Top of Well:** \_\_\_\_\_  
**Driller:** CME Associates **Boring Location:** See Plan  
**Inspector:** M. Borruso  
**Drilling Method:** Hollow Stem Auger with Split-Spoon Sampling  
**Geographic Location (Lat, Long):** 42.601867°, -73.764970°  
**Weather Conditions:** Clear, 45°F

DEPTH	BLOWS ON SAMPLER				SAMPLE		DESCRIPTION	VOC Screening (ppm)	NOTES
	SEE GEOTECHNICAL BORING LOGS				Name	Depth			
0					B-6 (0-2)	0-2	Dark Gray COAL ASH.	0.1	
2						2-4	SAA	0.2	
4					B-6 (4-6)	4-6	SAA	0.2	Saturated.
6						6-8	SAA	0.0	Saturated. Water encountered at 7.8'
8						8-10	SAA	0.0	
10						10-12	SAA	0.0	
12						12-14	SAA	0.0	
14						14-16	See Geotechnical boring logs for remainder of descriptions to 50 ft bgs.	0.0	
16						16-18		0.0	
18						18-20		0.0	
20						20-22		0.0	
22						22-24		0.0	
24						24-26		0.0	
26									

Notes: 1526: Sample B-6 (0-2) collected from 2-0" - surface sample.

1530: Sample B-6 (4-6) collected from above water table.

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## SOIL BORING LOG



**BORING/WELL NUMBER:** B-7

**PROJECT:** PORT OF ALBANY **Project No.:** 12084.00  
**Start Date:** 2/22/2017 **Finish Date:** 2/22/2017 **Top of Well:** \_\_\_\_\_  
**Driller:** CME Associates **Boring Location:** See Plan  
**Inspector:** M. Borruso  
**Drilling Method:** Hollow Stem Auger with Split-Spoon Sampling  
**Geographic Location (Lat, Long):** 42.603708°, -73.766743°  
**Weather Conditions:** Clear, 45°F

DEPTH	BLOWS ON SAMPLER				SAMPLE		DESCRIPTION	VOC Screening (ppm)	NOTES
	SEE GEOTECHNICAL BORING LOGS				Name	Depth			
0					B-7 (0-2)	0-2	Dark Gray COAL ASH.	0.1	
2					B-7 (1-4)	2-4	SAA	0.2	Water encountered at 2.5'
4						4-6	SAA	0.2	
6						6-8	SAA	0.2	
8						8-10	SAA	0.2	
10						10-12	SAA	0.2	
12						12-14	SAA	0.2	
14						14-16	SAA	0.2	
16						16-18	SAA	0.2	
18						18-20	Gray SAND, some gravel.	0.2	
20						20-22	See Geotechnical boring logs for remainder of descriptions to 50 ft bgs.	0.0	
22						22-24		0.0	
24						24-26		0.0	
26									

Notes: 1300: Sample B-7 (0-2) collected from 2-0" - surface sample.

1306: Sample B-7 (1-4) collected from above water table.

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## SOIL BORING LOG



**BORING/WELL NUMBER:** B-8

**PROJECT:** PORT OF ALBANY **Project No.:** 12084.00  
**Start Date:** 2/23/2017 **Finish Date:** 2/23/2017 **Top of Well:** \_\_\_\_\_  
**Driller:** CME Associates **Boring Location:** See Plan  
**Inspector:** M. Borruso  
**Drilling Method:** Hollow Stem Auger with Split-Spoon Sampling  
**Geographic Location (Lat, Long):** 42.606746°, -73.765740°  
**Weather Conditions:** Clear, 55°F

DEPTH	BLOWS ON SAMPLER				SAMPLE		DESCRIPTION	VOC Screening (ppm)	NOTES
	SEE GEOTECHNICAL BORING LOGS				Name	Depth			
0					B-8 (0-2)	0-2	Brown SAND, some clay, little silt, trace gravel.	0.2	
2						2-4	SAA	0.3	
4						4-6	SAA	0.1	
6					B-8 (6-8)	6-8	Gray COAL ASH.	0.6	Slight metallic odor.
8						8-10	SAA	0.4	
10						10-12	Brown M-F SAND, some gravel.	0.1	
12						12-14	No recovery.	NA	
14						14-16	Gray CLAY.	0.1	
16						16-18	SAA	0.1	
18						18-20	See Geotechnical boring logs for remainder of descriptions to 50 ft bgs.	0.0	
20						20-22		0.0	
22						22-24		0.0	
24						24-26		0.0	
26									

Notes: 0900: Sample B-8 (0-2) collected from 2'-0" - surface sample.

0936: Sample B-8 (6-8) collected from highest PID reading above water table.

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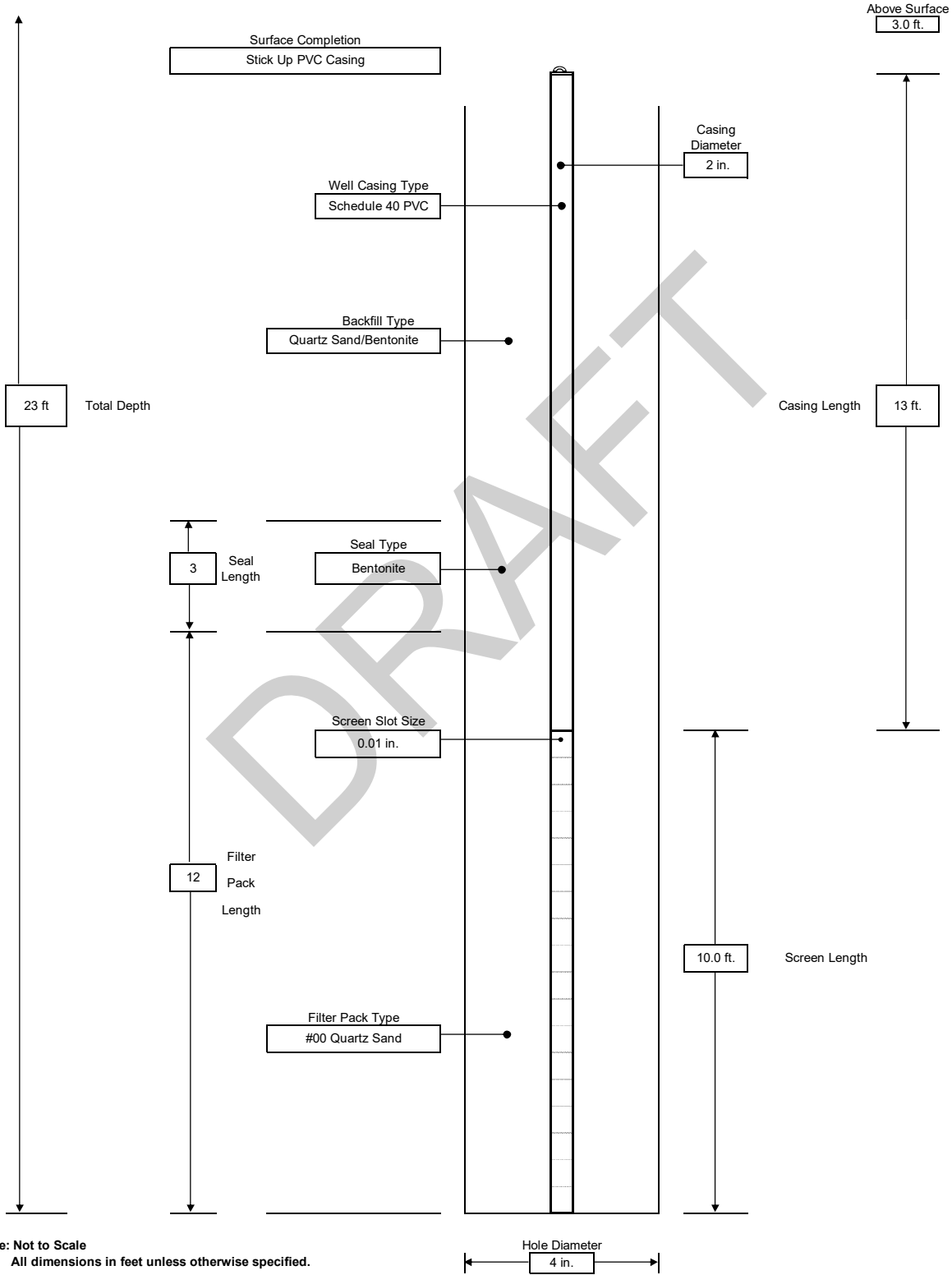
\_\_\_\_\_

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**Project:** Port of Albany  
**Job No.:** 12084.00  
**Development:** Surge and bailed - removed approximately three well volumes  
**Formation of Completion:** Fill Soil Deposit  
**Comments:**  
**Driller:** CME Associates

**Well Name:** MW-1  
**Date Installed:** 2/28/2017

**WELL COMPLETION LOG**

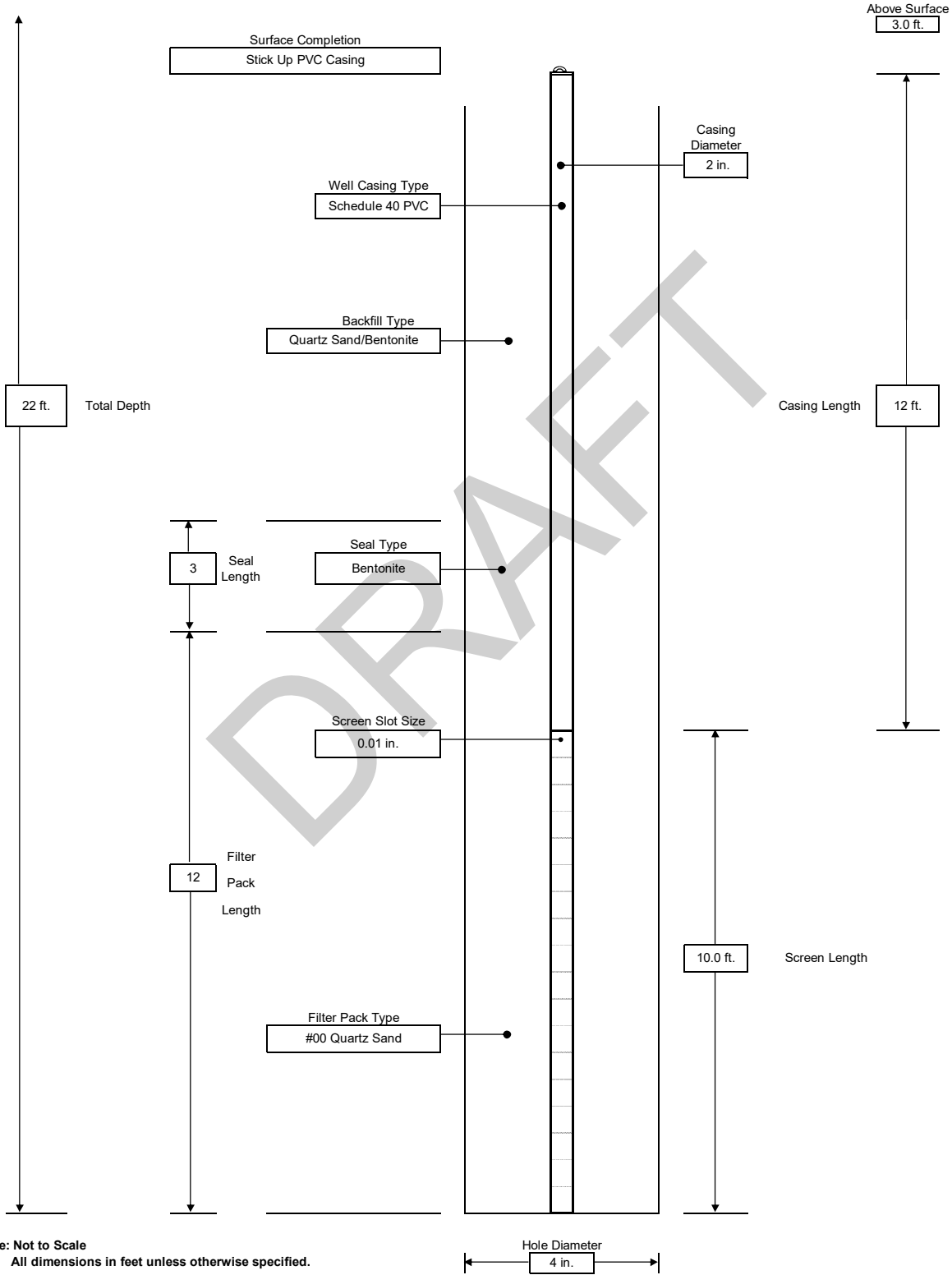


**Note: Not to Scale**  
 All dimensions in feet unless otherwise specified.

**Project:** Port of Albany  
**Job No.:** 12084.00  
**Development:** Surge and bailed - removed approximately three well volumes  
**Formation of Completion:** Fill Soil Deposit  
**Comments:**  
**Driller:** CME Associates

**Well Name:** MW-2  
**Date Installed:** 2/28/2017

**WELL COMPLETION LOG**



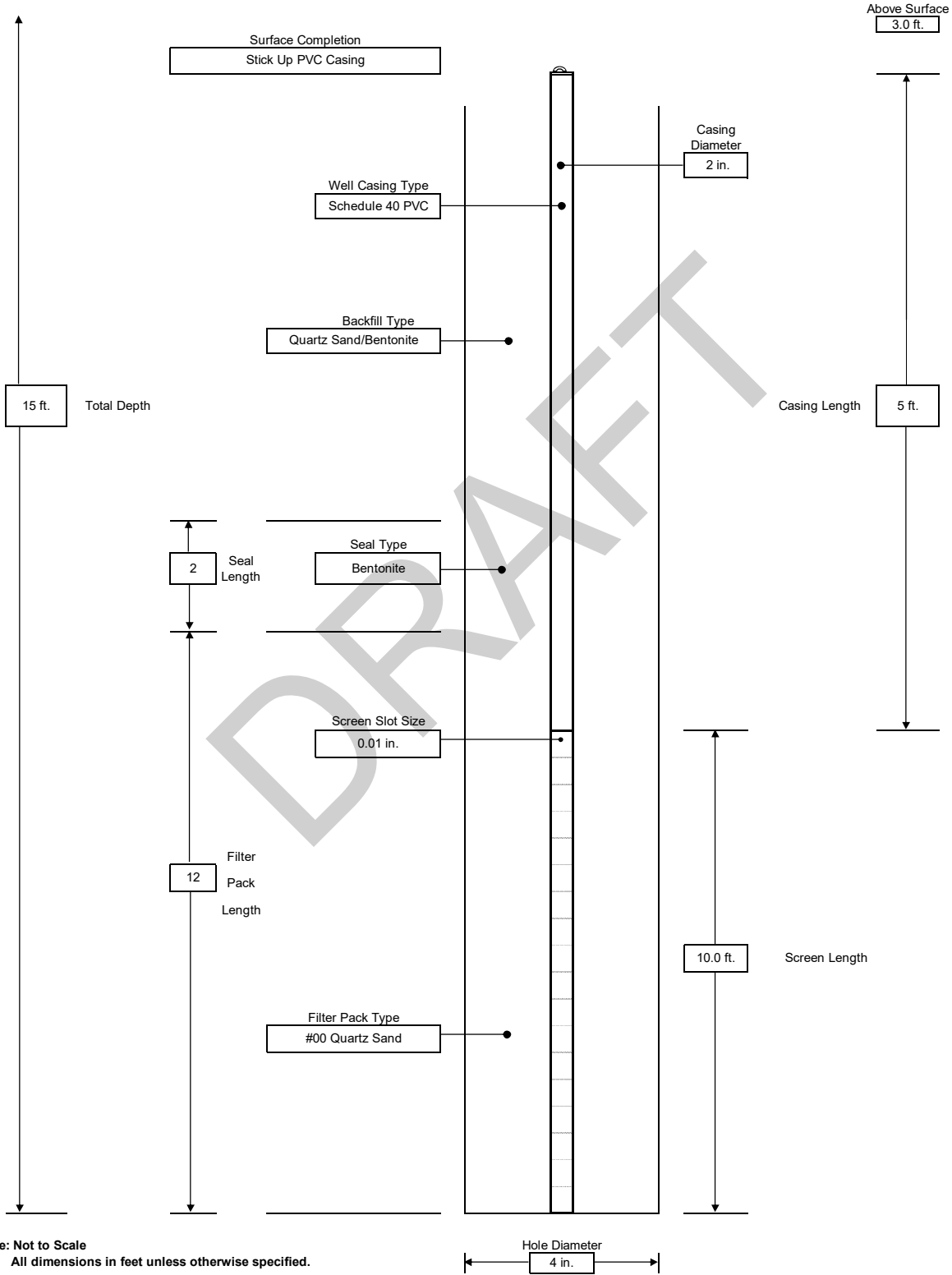
**Note: Not to Scale**  
 All dimensions in feet unless otherwise specified.



**Project:** Port of Albany  
**Job No.:** 12084.00  
**Development:** Surge and bailed - removed approximately three well volumes  
**Formation of Completion:** Fill Soil Deposit  
**Comments:**  
**Driller:** CME Associates

**Well Name:** MW-3  
**Date Installed:** 2/28/2017

**WELL COMPLETION LOG**



**Note: Not to Scale**  
 All dimensions in feet unless otherwise specified.

**GROUNDWATER SAMPLING LOG**

Port of Albany  
Glenmont, NY



**MW-1**

Well Data		Date:	3/27/2017			
Casing Elevation	16.93					
Depth to Groundwater (btoc)	17.32					
Well Diameter	2"					
Product Thickness	--					
Well Depth (btoc)	23.00					
Well Volume (gal)	5.68					
3 Volumes	17.04					
Minimum Purge Volume (gal)	2.78					
Comments						
Time Sampled	1627					

Field Parameters						
Floaters and Sinkers	--					
Ph (SU)	6.24					
Temperature (°C)	10.27					
Conductivity (ms/cm)	0.00					
Dissolved Oxygen (mg/l)	12.20					
ORP (mV)	270					
Turbidity (NTU)	5.00					
Other Observations	--					

Notes:

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**NOTES**

btoc Below top of casing (inner riser)  
-- Not Applicable

All measurements are in feet, referenced to arbitrary site datum of 100 feet  
Minimum purge volume = 3 X well volume, 0.163 gallon per foot in a 2" diameter well, 0.653 gallon per foot in a 4" diameter well

**GROUNDWATER SAMPLING LOG**

Port of Albany  
Glenmont, NY



**MW-2**

	Date:	3/28/2017				
Well Data						
Casing Elevation	16.86					
Depth to Groundwater (btoc)	13.82					
Well Diameter	2"					
Product Thickness	--					
Well Depth (btoc)	22.00					
Well Volume (gal)	8.18					
3 Volumes	24.54					
Minimum Purge Volume (gal)	4.00					
Comments						
Time Sampled	940					

Field Parameters					
Floaters and Sinkers	--				
Ph (SU)	6.42				
Temperature (°C)	7.05				
Conductivity (ms/cm)	0.00				
Dissolved Oxygen (mg/l)	14.45				
ORP (mV)	240				
Turbidity (NTU)	4.00				
Other Observations	--				

Notes:

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**NOTES**

btoc Below top of casing (inner riser)  
-- Not Applicable

All measurements are in feet, referenced to arbitrary site datum of 100 feet  
Minimum purge volume = 3 X well volume, 0.163 gallon per foot in a 2" diameter well, 0.653 gallon per foot in a 4" diameter well



**GROUNDWATER SAMPLING LOG**

Port of Albany  
Glenmont, NY



**MW-3**

	Date:	3/27/2017				
Well Data						
Casing Elevation	10.18					
Depth to Groundwater (btoc)	4.01					
Well Diameter	2"					
Product Thickness	--					
Well Depth (btoc)	15.00					
Well Volume (gal)	4.82					
3 Volumes	14.46					
Minimum Purge Volume (gal)	2.36					
Comments	--					
Time Sampled	1542					

Field Parameters						
Floaters and Sinkers	--					
Ph (SU)	6.53					
Temperature (°C)	11.76					
Conductivity (ms/cm)	0.00					
Dissolved Oxygen (mg/l)	13.05					
ORP (mV)	223					
Turbidity (NTU)	0.00					
Other Observations	--					

Notes:

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**NOTES**

btoc Below top of casing (inner riser)  
-- Not Applicable

All measurements are in feet, referenced to arbitrary site datum of 100 feet  
Minimum purge volume = 3 X well volume, 0.163 gallon per foot in a 2" diameter well, 0.653 gallon per foot in a 4" diameter well

**APPENDIX D**  
**LABORATORY DATA REPORTS**

DRAFT





**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

*Analytical Report For*  
**Bergmann Associates**

*For Lab Project ID*

**170605**

*Referencing*

**Port Of Albany**

*Prepared*

**Friday, February 24, 2017**

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in black ink, consisting of several overlapping, slanted strokes, positioned above a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

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*Report Prepared Friday, February 24, 2017*

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-4 (0-2)

**Lab Sample ID:** 170605-01

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.255	mg/Kg		2/23/2017 17:53

Method Reference(s): EPA 7471B  
Preparation Date: 2/23/2017  
Data File: Hg170223C

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	16200	mg/Kg		2/23/2017 13:33
Antimony	< 7.31	mg/Kg		2/22/2017 15:25
Arsenic	44.9	mg/Kg		2/22/2017 15:25
Barium	447	mg/Kg		2/22/2017 15:25
Beryllium	2.01	mg/Kg		2/22/2017 15:25
Cadmium	< 0.609	mg/Kg		2/22/2017 15:25
Calcium	9670	mg/Kg		2/23/2017 13:33
Chromium	28.0	mg/Kg		2/22/2017 15:25
Cobalt	9.38	mg/Kg		2/22/2017 15:25
Copper	25.4	mg/Kg		2/22/2017 15:25
Iron	29500	mg/Kg		2/23/2017 13:33
Lead	17.8	mg/Kg		2/22/2017 15:25
Magnesium	2110	mg/Kg		2/22/2017 15:25
Manganese	167	mg/Kg		2/22/2017 15:25
Nickel	25.8	mg/Kg		2/22/2017 15:25
Potassium	1870	mg/Kg		2/22/2017 15:25
Selenium	< 1.22	mg/Kg		2/22/2017 15:25
Silver	< 1.22	mg/Kg		2/23/2017 13:33
Sodium	978	mg/Kg		2/22/2017 15:25
Thallium	< 3.05	mg/Kg		2/22/2017 15:25
Vanadium	66.1	mg/Kg		2/22/2017 15:25
Zinc	56.0	mg/Kg		2/22/2017 15:25

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-4 (0-2)

**Lab Sample ID:** 170605-01

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/21/2017  
**Data File:** 022317A

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0739	mg/Kg		2/23/2017 19:17
PCB-1221	< 0.0739	mg/Kg		2/23/2017 19:17
PCB-1232	< 0.0739	mg/Kg		2/23/2017 19:17
PCB-1242	< 0.0739	mg/Kg		2/23/2017 19:17
PCB-1248	< 0.0739	mg/Kg		2/23/2017 19:17
PCB-1254	< 0.0739	mg/Kg		2/23/2017 19:17
PCB-1260	< 0.0739	mg/Kg		2/23/2017 19:17
PCB-1262	< 0.0739	mg/Kg		2/23/2017 19:17
PCB-1268	< 0.0739	mg/Kg		2/23/2017 19:17

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	61.1	10 - 142		2/23/2017 19:17
Tetrachloro-m-xylene	45.6	10 - 136		2/23/2017 19:17

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/22/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 7.39	ug/Kg		2/23/2017 18:02
4,4-DDE	< 7.39	ug/Kg		2/23/2017 18:02
4,4-DDT	< 7.39	ug/Kg		2/23/2017 18:02
Aldrin	< 7.39	ug/Kg		2/23/2017 18:02
alpha-BHC	< 7.39	ug/Kg		2/23/2017 18:02
beta-BHC	< 7.39	ug/Kg		2/23/2017 18:02
cis-Chlordane	< 7.39	ug/Kg		2/23/2017 18:02
delta-BHC	< 7.39	ug/Kg		2/23/2017 18:02
Dieldrin	< 7.39	ug/Kg		2/23/2017 18:02

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-4 (0-2)

**Lab Sample ID:** 170605-01

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Endosulfan I	< 7.39	ug/Kg	2/23/2017	18:02
Endosulfan II	< 7.39	ug/Kg	2/23/2017	18:02
Endosulfan Sulfate	< 7.39	ug/Kg	2/23/2017	18:02
Endrin	< 7.39	ug/Kg	2/23/2017	18:02
Endrin Aldehyde	< 7.39	ug/Kg	2/23/2017	18:02
Endrin Ketone	< 7.39	ug/Kg	2/23/2017	18:02
gamma-BHC (Lindane)	< 7.39	ug/Kg	2/23/2017	18:02
Heptachlor	< 7.39	ug/Kg	2/23/2017	18:02
Heptachlor Epoxide	<b>21.8</b>	ug/Kg	2/23/2017	18:02
Methoxychlor	< 7.39	ug/Kg	2/23/2017	18:02
Toxaphene	< 73.9	ug/Kg	2/23/2017	18:02
trans-Chlordane	< 7.39	ug/Kg	2/23/2017	18:02

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	<b>1290</b>	10 - 152	*	2/23/2017 18:02
Tetrachloro-m-xylene (1)	<b>44.4</b>	10 - 91.1		2/23/2017 18:02

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/22/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 752	ug/Kg		2/23/2017 18:05
1,2,4,5-Tetrachlorobenzene	< 752	ug/Kg		2/23/2017 18:05
1,2,4-Trichlorobenzene	< 752	ug/Kg		2/23/2017 18:05
1,2-Dichlorobenzene	< 752	ug/Kg		2/23/2017 18:05
1,3-Dichlorobenzene	< 752	ug/Kg		2/23/2017 18:05
1,4-Dichlorobenzene	< 752	ug/Kg		2/23/2017 18:05
2,2-Oxybis (1-chloropropane)	< 752	ug/Kg		2/23/2017 18:05
2,4-Dinitrotoluene	< 752	ug/Kg		2/23/2017 18:05
2,6-Dinitrotoluene	< 752	ug/Kg		2/23/2017 18:05
2-Chloronaphthalene	< 752	ug/Kg		2/23/2017 18:05
2-Methylnaphthalene	< 752	ug/Kg		2/23/2017 18:05
2-Nitroaniline	< 1500	ug/Kg		2/23/2017 18:05

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-4 (0-2)			
<b>Lab Sample ID:</b>	170605-01		<b>Date Sampled:</b>	2/14/2017
<b>Matrix:</b>	Soil		<b>Date Received:</b>	2/17/2017
3,3'-Dichlorobenzidine	< 752	ug/Kg	2/23/2017	18:05
3-Nitroaniline	< 1500	ug/Kg	2/23/2017	18:05
4-Bromophenyl phenyl ether	< 752	ug/Kg	2/23/2017	18:05
4-Chloroaniline	< 752	ug/Kg	2/23/2017	18:05
4-Chlorophenyl phenyl ether	< 752	ug/Kg	2/23/2017	18:05
4-Nitroaniline	< 1500	ug/Kg	2/23/2017	18:05
Acenaphthene	< 752	ug/Kg	2/23/2017	18:05
Acenaphthylene	< 752	ug/Kg	2/23/2017	18:05
Acetophenone	< 752	ug/Kg	2/23/2017	18:05
Anthracene	< 752	ug/Kg	2/23/2017	18:05
Atrazine	< 752	ug/Kg	2/23/2017	18:05
Benzaldehyde	< 752	ug/Kg	2/23/2017	18:05
Benzo (a) anthracene	< 752	ug/Kg	2/23/2017	18:05
Benzo (a) pyrene	< 752	ug/Kg	2/23/2017	18:05
Benzo (b) fluoranthene	< 752	ug/Kg	2/23/2017	18:05
Benzo (g,h,i) perylene	< 752	ug/Kg	2/23/2017	18:05
Benzo (k) fluoranthene	< 752	ug/Kg	2/23/2017	18:05
Bis (2-chloroethoxy) methane	< 752	ug/Kg	2/23/2017	18:05
Bis (2-chloroethyl) ether	< 752	ug/Kg	2/23/2017	18:05
Bis (2-ethylhexyl) phthalate	< 752	ug/Kg	2/23/2017	18:05
Butylbenzylphthalate	< 752	ug/Kg	2/23/2017	18:05
Caprolactam	< 752	ug/Kg	2/23/2017	18:05
Carbazole	< 752	ug/Kg	2/23/2017	18:05
Chrysene	< 752	ug/Kg	2/23/2017	18:05
Dibenz (a,h) anthracene	< 752	ug/Kg	2/23/2017	18:05
Dibenzofuran	< 752	ug/Kg	2/23/2017	18:05
Diethyl phthalate	< 752	ug/Kg	2/23/2017	18:05
Dimethyl phthalate	< 1500	ug/Kg	2/23/2017	18:05
Di-n-butyl phthalate	< 752	ug/Kg	2/23/2017	18:05
Di-n-octylphthalate	< 752	ug/Kg	2/23/2017	18:05
Fluoranthene	< 752	ug/Kg	2/23/2017	18:05
Fluorene	< 752	ug/Kg	2/23/2017	18:05

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-4 (0-2)

**Lab Sample ID:** 170605-01

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Hexachlorobenzene	< 752	ug/Kg	2/23/2017	18:05
Hexachlorobutadiene	< 752	ug/Kg	2/23/2017	18:05
Hexachlorocyclopentadiene	< 752	ug/Kg	2/23/2017	18:05
Hexachloroethane	< 752	ug/Kg	2/23/2017	18:05
Indeno (1,2,3-cd) pyrene	< 752	ug/Kg	2/23/2017	18:05
Isophorone	< 752	ug/Kg	2/23/2017	18:05
Naphthalene	< 752	ug/Kg	2/23/2017	18:05
Nitrobenzene	< 752	ug/Kg	2/23/2017	18:05
N-Nitroso-di-n-propylamine	< 752	ug/Kg	2/23/2017	18:05
N-Nitrosodiphenylamine	< 752	ug/Kg	2/23/2017	18:05
Phenanthrene	< 752	ug/Kg	2/23/2017	18:05
Pyrene	< 752	ug/Kg	2/23/2017	18:05

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	22.1	33.7 - 113	*	2/23/2017 18:05
Nitrobenzene-d5	28.9	33.3 - 91.5	*	2/23/2017 18:05
Terphenyl-d14	60.0	66.1 - 113	*	2/23/2017 18:05

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/22/2017  
**Data File:** B17371.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 16.2	ug/Kg		2/22/2017 14:45
1,1,2,2-Tetrachloroethane	< 16.2	ug/Kg		2/22/2017 14:45
1,1,2-Trichloroethane	< 16.2	ug/Kg		2/22/2017 14:45
1,1-Dichloroethane	< 16.2	ug/Kg		2/22/2017 14:45
1,1-Dichloroethene	< 16.2	ug/Kg		2/22/2017 14:45
1,2,3-Trichlorobenzene	< 40.6	ug/Kg		2/22/2017 14:45
1,2,4-Trichlorobenzene	< 40.6	ug/Kg		2/22/2017 14:45
1,2,4-Trimethylbenzene	< 16.2	ug/Kg		2/22/2017 14:45
1,2-Dibromo-3-Chloropropane	< 81.2	ug/Kg		2/22/2017 14:45
1,2-Dibromoethane	< 16.2	ug/Kg		2/22/2017 14:45

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-4 (0-2)		
<b>Lab Sample ID:</b>	170605-01	<b>Date Sampled:</b>	2/14/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/17/2017
1,2-Dichlorobenzene	< 16.2	ug/Kg	2/22/2017 14:45
1,2-Dichloroethane	< 16.2	ug/Kg	2/22/2017 14:45
1,2-Dichloropropane	< 16.2	ug/Kg	2/22/2017 14:45
1,3,5-Trimethylbenzene	< 16.2	ug/Kg	2/22/2017 14:45
1,3-Dichlorobenzene	< 16.2	ug/Kg	2/22/2017 14:45
1,4-Dichlorobenzene	< 16.2	ug/Kg	2/22/2017 14:45
1,4-dioxane	< 16.2	ug/Kg	2/22/2017 14:45
2-Butanone	< 81.2	ug/Kg	2/22/2017 14:45
2-Hexanone	< 40.6	ug/Kg	2/22/2017 14:45
4-Methyl-2-pentanone	< 40.6	ug/Kg	2/22/2017 14:45
Acetone	<b>92.3</b>	ug/Kg	2/22/2017 14:45
Benzene	< 16.2	ug/Kg	2/22/2017 14:45
Bromochloromethane	< 40.6	ug/Kg	2/22/2017 14:45
Bromodichloromethane	< 16.2	ug/Kg	2/22/2017 14:45
Bromoform	< 40.6	ug/Kg	2/22/2017 14:45
Bromomethane	< 16.2	ug/Kg	2/22/2017 14:45
Carbon disulfide	< 16.2	ug/Kg	2/22/2017 14:45
Carbon Tetrachloride	< 16.2	ug/Kg	2/22/2017 14:45
Chlorobenzene	< 16.2	ug/Kg	2/22/2017 14:45
Chloroethane	< 16.2	ug/Kg	2/22/2017 14:45
Chloroform	< 16.2	ug/Kg	2/22/2017 14:45
Chloromethane	< 16.2	ug/Kg	2/22/2017 14:45
cis-1,2-Dichloroethene	< 16.2	ug/Kg	2/22/2017 14:45
cis-1,3-Dichloropropene	< 16.2	ug/Kg	2/22/2017 14:45
Cyclohexane	< 81.2	ug/Kg	2/22/2017 14:45
Dibromochloromethane	< 16.2	ug/Kg	2/22/2017 14:45
Dichlorodifluoromethane	< 16.2	ug/Kg	2/22/2017 14:45
Ethylbenzene	< 16.2	ug/Kg	2/22/2017 14:45
Freon 113	< 16.2	ug/Kg	2/22/2017 14:45
Isopropylbenzene	< 16.2	ug/Kg	2/22/2017 14:45
m,p-Xylene	< 16.2	ug/Kg	2/22/2017 14:45
Methyl acetate	< 16.2	ug/Kg	2/22/2017 14:45

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-4 (0-2)

**Lab Sample ID:** 170605-01

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Methyl tert-butyl Ether	< 16.2	ug/Kg	2/22/2017	14:45
Methylcyclohexane	< 16.2	ug/Kg	2/22/2017	14:45
Methylene chloride	< 40.6	ug/Kg	2/22/2017	14:45
Naphthalene	< 40.6	ug/Kg	2/22/2017	14:45
n-Butylbenzene	< 16.2	ug/Kg	2/22/2017	14:45
n-Propylbenzene	< 16.2	ug/Kg	2/22/2017	14:45
o-Xylene	< 16.2	ug/Kg	2/22/2017	14:45
p-Isopropyltoluene	< 16.2	ug/Kg	2/22/2017	14:45
sec-Butylbenzene	< 16.2	ug/Kg	2/22/2017	14:45
Styrene	< 40.6	ug/Kg	2/22/2017	14:45
tert-Butylbenzene	< 16.2	ug/Kg	2/22/2017	14:45
Tetrachloroethene	< 16.2	ug/Kg	2/22/2017	14:45
Toluene	< 16.2	ug/Kg	2/22/2017	14:45
trans-1,2-Dichloroethene	< 16.2	ug/Kg	2/22/2017	14:45
trans-1,3-Dichloropropene	< 16.2	ug/Kg	2/22/2017	14:45
Trichloroethene	< 16.2	ug/Kg	2/22/2017	14:45
Trichlorofluoromethane	< 16.2	ug/Kg	2/22/2017	14:45
Vinyl chloride	< 16.2	ug/Kg	2/22/2017	14:45

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>144</b>	82.1 - 123	*	2/22/2017 14:45
4-Bromofluorobenzene	<b>54.5</b>	84.6 - 112	*	2/22/2017 14:45
Pentafluorobenzene	<b>88.9</b>	91.4 - 111	*	2/22/2017 14:45
Toluene-D8	<b>88.5</b>	90.3 - 108	*	2/22/2017 14:45

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39386.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 1.28	mg/Kg		2/21/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-4 (0-2)

**Lab Sample ID:** 170605-01

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 2/21/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-4 (2-4)

**Lab Sample ID:** 170605-02

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.235	mg/Kg		2/23/2017 17:50

Method Reference(s): EPA 7471B  
Preparation Date: 2/23/2017  
Data File: Hg170223C

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	16000	mg/Kg		2/23/2017 13:37
Antimony	< 5.65	mg/Kg		2/22/2017 15:29
Arsenic	56.0	mg/Kg		2/22/2017 15:29
Barium	469	mg/Kg		2/22/2017 15:29
Beryllium	2.18	mg/Kg		2/22/2017 15:29
Cadmium	< 0.471	mg/Kg		2/22/2017 15:29
Calcium	7770	mg/Kg		2/23/2017 13:37
Chromium	26.9	mg/Kg		2/22/2017 15:29
Cobalt	9.33	mg/Kg		2/22/2017 15:29
Copper	24.4	mg/Kg		2/22/2017 15:29
Iron	21500	mg/Kg		2/23/2017 13:37
Lead	14.7	mg/Kg		2/22/2017 15:29
Magnesium	1630	mg/Kg		2/22/2017 15:29
Manganese	78.0	mg/Kg		2/22/2017 15:29
Nickel	19.4	mg/Kg		2/22/2017 15:29
Potassium	1600	mg/Kg		2/22/2017 15:29
Selenium	1.78	mg/Kg		2/24/2017 15:10
Silver	< 0.942	mg/Kg		2/23/2017 13:37
Sodium	824	mg/Kg		2/22/2017 15:29
Thallium	< 2.35	mg/Kg		2/22/2017 15:29
Vanadium	49.9	mg/Kg		2/22/2017 15:29
Zinc	35.7	mg/Kg		2/22/2017 15:29

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-4 (2-4)

**Lab Sample ID:** 170605-02

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/21/2017  
**Data File:** 022317A

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0529	mg/Kg		2/23/2017 19:40
PCB-1221	< 0.0529	mg/Kg		2/23/2017 19:40
PCB-1232	< 0.0529	mg/Kg		2/23/2017 19:40
PCB-1242	< 0.0529	mg/Kg		2/23/2017 19:40
PCB-1248	< 0.0529	mg/Kg		2/23/2017 19:40
PCB-1254	< 0.0529	mg/Kg		2/23/2017 19:40
PCB-1260	< 0.0529	mg/Kg		2/23/2017 19:40
PCB-1262	< 0.0529	mg/Kg		2/23/2017 19:40
PCB-1268	< 0.0529	mg/Kg		2/23/2017 19:40

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	72.7	10 - 142		2/23/2017 19:40
Tetrachloro-m-xylene	44.2	10 - 136		2/23/2017 19:40

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/22/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 5.29	ug/Kg		2/23/2017 18:16
4,4-DDE	< 5.29	ug/Kg		2/23/2017 18:16
4,4-DDT	< 5.29	ug/Kg		2/23/2017 18:16
Aldrin	< 5.29	ug/Kg		2/23/2017 18:16
alpha-BHC	< 5.29	ug/Kg		2/23/2017 18:16
beta-BHC	< 5.29	ug/Kg		2/23/2017 18:16
cis-Chlordane	< 5.29	ug/Kg		2/23/2017 18:16
delta-BHC	< 5.29	ug/Kg		2/23/2017 18:16
Dieldrin	< 5.29	ug/Kg		2/23/2017 18:16

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-4 (2-4)

**Lab Sample ID:** 170605-02

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Endosulfan I	< 5.29	ug/Kg	2/23/2017	18:16
Endosulfan II	< 5.29	ug/Kg	2/23/2017	18:16
Endosulfan Sulfate	< 5.29	ug/Kg	2/23/2017	18:16
Endrin	< 5.29	ug/Kg	2/23/2017	18:16
Endrin Aldehyde	< 5.29	ug/Kg	2/23/2017	18:16
Endrin Ketone	< 5.29	ug/Kg	2/23/2017	18:16
gamma-BHC (Lindane)	< 5.29	ug/Kg	2/23/2017	18:16
Heptachlor	< 5.29	ug/Kg	2/23/2017	18:16
Heptachlor Epoxide	< 5.29	ug/Kg	2/23/2017	18:16
Methoxychlor	< 5.29	ug/Kg	2/23/2017	18:16
Toxaphene	< 5.29	ug/Kg	2/23/2017	18:16
trans-Chlordane	< 5.29	ug/Kg	2/23/2017	18:16

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	62.6	10 - 152		2/23/2017 18:16
Tetrachloro-m-xylene (1)	43.5	10 - 91.1		2/23/2017 18:16

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/22/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 538	ug/Kg		2/23/2017 18:35
1,2,4,5-Tetrachlorobenzene	< 538	ug/Kg		2/23/2017 18:35
1,2,4-Trichlorobenzene	< 538	ug/Kg		2/23/2017 18:35
1,2-Dichlorobenzene	< 538	ug/Kg		2/23/2017 18:35
1,3-Dichlorobenzene	< 538	ug/Kg		2/23/2017 18:35
1,4-Dichlorobenzene	< 538	ug/Kg		2/23/2017 18:35
2,2-Oxybis (1-chloropropane)	< 538	ug/Kg		2/23/2017 18:35
2,4-Dinitrotoluene	< 538	ug/Kg		2/23/2017 18:35
2,6-Dinitrotoluene	< 538	ug/Kg		2/23/2017 18:35
2-Chloronaphthalene	< 538	ug/Kg		2/23/2017 18:35
2-Methylnaphthalene	< 538	ug/Kg		2/23/2017 18:35
2-Nitroaniline	< 1080	ug/Kg		2/23/2017 18:35

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**Client:** Bergmann Associates
**Project Reference:** Port Of Albany

**Sample Identifier:** B-4 (2-4)

**Lab Sample ID:** 170605-02

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

3,3'-Dichlorobenzidine	< 538	ug/Kg	2/23/2017	18:35
3-Nitroaniline	< 1080	ug/Kg	2/23/2017	18:35
4-Bromophenyl phenyl ether	< 538	ug/Kg	2/23/2017	18:35
4-Chloroaniline	< 538	ug/Kg	2/23/2017	18:35
4-Chlorophenyl phenyl ether	< 538	ug/Kg	2/23/2017	18:35
4-Nitroaniline	< 1080	ug/Kg	2/23/2017	18:35
Acenaphthene	< 538	ug/Kg	2/23/2017	18:35
Acenaphthylene	< 538	ug/Kg	2/23/2017	18:35
Acetophenone	< 538	ug/Kg	2/23/2017	18:35
Anthracene	< 538	ug/Kg	2/23/2017	18:35
Atrazine	< 538	ug/Kg	2/23/2017	18:35
Benzaldehyde	< 538	ug/Kg	2/23/2017	18:35
Benzo (a) anthracene	< 538	ug/Kg	2/23/2017	18:35
Benzo (a) pyrene	< 538	ug/Kg	2/23/2017	18:35
Benzo (b) fluoranthene	< 538	ug/Kg	2/23/2017	18:35
Benzo (g,h,i) perylene	< 538	ug/Kg	2/23/2017	18:35
Benzo (k) fluoranthene	< 538	ug/Kg	2/23/2017	18:35
Bis (2-chloroethoxy) methane	< 538	ug/Kg	2/23/2017	18:35
Bis (2-chloroethyl) ether	< 538	ug/Kg	2/23/2017	18:35
Bis (2-ethylhexyl) phthalate	< 538	ug/Kg	2/23/2017	18:35
Butylbenzylphthalate	< 538	ug/Kg	2/23/2017	18:35
Caprolactam	< 538	ug/Kg	2/23/2017	18:35
Carbazole	< 538	ug/Kg	2/23/2017	18:35
Chrysene	< 538	ug/Kg	2/23/2017	18:35
Dibenz (a,h) anthracene	< 538	ug/Kg	2/23/2017	18:35
Dibenzofuran	< 538	ug/Kg	2/23/2017	18:35
Diethyl phthalate	< 538	ug/Kg	2/23/2017	18:35
Dimethyl phthalate	< 1080	ug/Kg	2/23/2017	18:35
Di-n-butyl phthalate	< 538	ug/Kg	2/23/2017	18:35
Di-n-octylphthalate	< 538	ug/Kg	2/23/2017	18:35
Fluoranthene	< 538	ug/Kg	2/23/2017	18:35
Fluorene	< 538	ug/Kg	2/23/2017	18:35

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-4 (2-4)

**Lab Sample ID:** 170605-02

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Hexachlorobenzene	< 538	ug/Kg	2/23/2017	18:35
Hexachlorobutadiene	< 538	ug/Kg	2/23/2017	18:35
Hexachlorocyclopentadiene	< 538	ug/Kg	2/23/2017	18:35
Hexachloroethane	< 538	ug/Kg	2/23/2017	18:35
Indeno (1,2,3-cd) pyrene	< 538	ug/Kg	2/23/2017	18:35
Isophorone	< 538	ug/Kg	2/23/2017	18:35
Naphthalene	< 538	ug/Kg	2/23/2017	18:35
Nitrobenzene	< 538	ug/Kg	2/23/2017	18:35
N-Nitroso-di-n-propylamine	< 538	ug/Kg	2/23/2017	18:35
N-Nitrosodiphenylamine	< 538	ug/Kg	2/23/2017	18:35
Phenanthrene	< 538	ug/Kg	2/23/2017	18:35
Pyrene	< 538	ug/Kg	2/23/2017	18:35

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	12.2	33.7 - 113	*	2/23/2017 18:35
Nitrobenzene-d5	21.4	33.3 - 91.5	*	2/23/2017 18:35
Terphenyl-d14	55.9	66.1 - 113	*	2/23/2017 18:35

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/22/2017  
**Data File:** B17372.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 9.01	ug/Kg		2/22/2017 15:09
1,1,1,2-Tetrachloroethane	< 9.01	ug/Kg		2/22/2017 15:09
1,1,2-Trichloroethane	< 9.01	ug/Kg		2/22/2017 15:09
1,1-Dichloroethane	< 9.01	ug/Kg		2/22/2017 15:09
1,1-Dichloroethene	< 9.01	ug/Kg		2/22/2017 15:09
1,2,3-Trichlorobenzene	< 22.5	ug/Kg		2/22/2017 15:09
1,2,4-Trichlorobenzene	< 22.5	ug/Kg		2/22/2017 15:09
1,2,4-Trimethylbenzene	< 9.01	ug/Kg		2/22/2017 15:09
1,2-Dibromo-3-Chloropropane	< 45.1	ug/Kg		2/22/2017 15:09
1,2-Dibromoethane	< 9.01	ug/Kg		2/22/2017 15:09

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-4 (2-4)			
<b>Lab Sample ID:</b>	170605-02		<b>Date Sampled:</b>	2/14/2017
<b>Matrix:</b>	Soil		<b>Date Received:</b>	2/17/2017
1,2-Dichlorobenzene	< 9.01	ug/Kg	2/22/2017	15:09
1,2-Dichloroethane	< 9.01	ug/Kg	2/22/2017	15:09
1,2-Dichloropropane	< 9.01	ug/Kg	2/22/2017	15:09
1,3,5-Trimethylbenzene	< 9.01	ug/Kg	2/22/2017	15:09
1,3-Dichlorobenzene	< 9.01	ug/Kg	2/22/2017	15:09
1,4-Dichlorobenzene	< 9.01	ug/Kg	2/22/2017	15:09
1,4-dioxane	< 90.1	ug/Kg	2/22/2017	15:09
2-Butanone	< 45.1	ug/Kg	2/22/2017	15:09
2-Hexanone	< 22.5	ug/Kg	2/22/2017	15:09
4-Methyl-2-pentanone	< 22.5	ug/Kg	2/22/2017	15:09
Acetone	< 45.1	ug/Kg	2/22/2017	15:09
Benzene	< 9.01	ug/Kg	2/22/2017	15:09
Bromochloromethane	< 22.5	ug/Kg	2/22/2017	15:09
Bromodichloromethane	< 9.01	ug/Kg	2/22/2017	15:09
Bromoform	< 22.5	ug/Kg	2/22/2017	15:09
Bromomethane	< 9.01	ug/Kg	2/22/2017	15:09
Carbon disulfide	< 9.01	ug/Kg	2/22/2017	15:09
Carbon Tetrachloride	< 9.01	ug/Kg	2/22/2017	15:09
Chlorobenzene	< 9.01	ug/Kg	2/22/2017	15:09
Chloroethane	< 9.01	ug/Kg	2/22/2017	15:09
Chloroform	< 9.01	ug/Kg	2/22/2017	15:09
Chloromethane	< 9.01	ug/Kg	2/22/2017	15:09
cis-1,2-Dichloroethene	< 9.01	ug/Kg	2/22/2017	15:09
cis-1,3-Dichloropropene	< 9.01	ug/Kg	2/22/2017	15:09
Cyclohexane	< 45.1	ug/Kg	2/22/2017	15:09
Dibromochloromethane	< 9.01	ug/Kg	2/22/2017	15:09
Dichlorodifluoromethane	< 9.01	ug/Kg	2/22/2017	15:09
Ethylbenzene	< 9.01	ug/Kg	2/22/2017	15:09
Freon 113	< 9.01	ug/Kg	2/22/2017	15:09
Isopropylbenzene	< 9.01	ug/Kg	2/22/2017	15:09
m,p-Xylene	< 9.01	ug/Kg	2/22/2017	15:09
Methyl acetate	< 9.01	ug/Kg	2/22/2017	15:09

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-4 (2-4)

**Lab Sample ID:** 170605-02

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Methyl tert-butyl Ether	< 9.01	ug/Kg	2/22/2017	15:09
Methylcyclohexane	< 9.01	ug/Kg	2/22/2017	15:09
Methylene chloride	< 22.5	ug/Kg	2/22/2017	15:09
Naphthalene	< 22.5	ug/Kg	2/22/2017	15:09
n-Butylbenzene	< 9.01	ug/Kg	2/22/2017	15:09
n-Propylbenzene	< 9.01	ug/Kg	2/22/2017	15:09
o-Xylene	< 9.01	ug/Kg	2/22/2017	15:09
p-Isopropyltoluene	< 9.01	ug/Kg	2/22/2017	15:09
sec-Butylbenzene	< 9.01	ug/Kg	2/22/2017	15:09
Styrene	< 22.5	ug/Kg	2/22/2017	15:09
tert-Butylbenzene	< 9.01	ug/Kg	2/22/2017	15:09
Tetrachloroethene	< 9.01	ug/Kg	2/22/2017	15:09
Toluene	< 9.01	ug/Kg	2/22/2017	15:09
trans-1,2-Dichloroethene	< 9.01	ug/Kg	2/22/2017	15:09
trans-1,3-Dichloropropene	< 9.01	ug/Kg	2/22/2017	15:09
Trichloroethene	< 9.01	ug/Kg	2/22/2017	15:09
Trichlorofluoromethane	< 9.01	ug/Kg	2/22/2017	15:09
Vinyl chloride	< 9.01	ug/Kg	2/22/2017	15:09

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>160</b>	82.1 - 123	*	2/22/2017 15:09
4-Bromofluorobenzene	<b>51.2</b>	84.6 - 112	*	2/22/2017 15:09
Pentafluorobenzene	<b>90.6</b>	91.4 - 111	*	2/22/2017 15:09
Toluene-D8	<b>83.3</b>	90.3 - 108	*	2/22/2017 15:09

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39387.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.712	mg/Kg		2/21/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-4 (2-4)

**Lab Sample ID:** 170605-02

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 2/21/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (0-2)

**Lab Sample ID:** 170605-03

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.123	mg/Kg		2/23/2017 17:55

Method Reference(s): EPA 7471B  
Preparation Date: 2/23/2017  
Data File: Hg170223C

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	13700	mg/Kg		2/23/2017 13:42
Antimony	< 4.20	mg/Kg		2/22/2017 15:33
Arsenic	33.4	mg/Kg		2/22/2017 15:33
Barium	419	mg/Kg		2/22/2017 15:33
Beryllium	1.39	mg/Kg		2/22/2017 15:33
Cadmium	< 0.350	mg/Kg		2/22/2017 15:33
Calcium	6130	mg/Kg		2/23/2017 13:42
Chromium	20.3	mg/Kg		2/22/2017 15:33
Cobalt	9.28	mg/Kg		2/22/2017 15:33
Copper	18.5	mg/Kg		2/22/2017 15:33
Iron	44800	mg/Kg		2/23/2017 13:55
Lead	7.37	mg/Kg		2/22/2017 15:33
Magnesium	2310	mg/Kg		2/22/2017 15:33
Manganese	135	mg/Kg		2/22/2017 15:33
Nickel	131	mg/Kg		2/22/2017 15:33
Potassium	1290	mg/Kg		2/22/2017 15:33
Selenium	< 0.699	mg/Kg		2/22/2017 15:33
Silver	< 0.699	mg/Kg		2/23/2017 13:42
Sodium	425	mg/Kg		2/22/2017 15:33
Thallium	2.50	mg/Kg		2/22/2017 15:33
Vanadium	1110	mg/Kg		2/22/2017 15:33
Zinc	26.1	mg/Kg		2/22/2017 15:33

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (0-2)

**Lab Sample ID:** 170605-03

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/21/2017  
**Data File:** 022317A

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0426	mg/Kg		2/23/2017 20:03
PCB-1221	< 0.0426	mg/Kg		2/23/2017 20:03
PCB-1232	< 0.0426	mg/Kg		2/23/2017 20:03
PCB-1242	< 0.0426	mg/Kg		2/23/2017 20:03
PCB-1248	< 0.0426	mg/Kg		2/23/2017 20:03
PCB-1254	< 0.0426	mg/Kg		2/23/2017 20:03
PCB-1260	< 0.0426	mg/Kg		2/23/2017 20:03
PCB-1262	< 0.0426	mg/Kg		2/23/2017 20:03
PCB-1268	< 0.0426	mg/Kg		2/23/2017 20:03

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	72.7	10 - 142		2/23/2017 20:03
Tetrachloro-m-xylene	49.8	10 - 136		2/23/2017 20:03

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/22/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 4.26	ug/Kg		2/23/2017 18:31
4,4-DDE	< 4.26	ug/Kg		2/23/2017 18:31
4,4-DDT	< 4.26	ug/Kg		2/23/2017 18:31
Aldrin	< 4.26	ug/Kg		2/23/2017 18:31
alpha-BHC	< 4.26	ug/Kg		2/23/2017 18:31
beta-BHC	< 4.26	ug/Kg		2/23/2017 18:31
cis-Chlordane	< 4.26	ug/Kg		2/23/2017 18:31
delta-BHC	< 4.26	ug/Kg		2/23/2017 18:31
Dieldrin	< 4.26	ug/Kg		2/23/2017 18:31

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (0-2)

**Lab Sample ID:** 170605-03

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Endosulfan I	< 4.26	ug/Kg	2/23/2017	18:31
Endosulfan II	< 4.26	ug/Kg	2/23/2017	18:31
Endosulfan Sulfate	< 4.26	ug/Kg	2/23/2017	18:31
Endrin	< 4.26	ug/Kg	2/23/2017	18:31
Endrin Aldehyde	< 4.26	ug/Kg	2/23/2017	18:31
Endrin Ketone	< 4.26	ug/Kg	2/23/2017	18:31
gamma-BHC (Lindane)	< 4.26	ug/Kg	2/23/2017	18:31
Heptachlor	< 4.26	ug/Kg	2/23/2017	18:31
Heptachlor Epoxide	< 4.26	ug/Kg	2/23/2017	18:31
Methoxychlor	< 4.26	ug/Kg	2/23/2017	18:31
Toxaphene	< 4.26	ug/Kg	2/23/2017	18:31
trans-Chlordane	< 4.26	ug/Kg	2/23/2017	18:31

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	64.2	10 - 152		2/23/2017 18:31
Tetrachloro-m-xylene (1)	52.7	10 - 91.1		2/23/2017 18:31

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/22/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 433	ug/Kg		2/23/2017 19:05
1,2,4,5-Tetrachlorobenzene	< 433	ug/Kg		2/23/2017 19:05
1,2,4-Trichlorobenzene	< 433	ug/Kg		2/23/2017 19:05
1,2-Dichlorobenzene	< 433	ug/Kg		2/23/2017 19:05
1,3-Dichlorobenzene	< 433	ug/Kg		2/23/2017 19:05
1,4-Dichlorobenzene	< 433	ug/Kg		2/23/2017 19:05
2,2-Oxybis (1-chloropropane)	< 433	ug/Kg		2/23/2017 19:05
2,4-Dinitrotoluene	< 433	ug/Kg		2/23/2017 19:05
2,6-Dinitrotoluene	< 433	ug/Kg		2/23/2017 19:05
2-Chloronaphthalene	< 433	ug/Kg		2/23/2017 19:05
2-Methylnaphthalene	< 433	ug/Kg		2/23/2017 19:05
2-Nitroaniline	< 866	ug/Kg		2/23/2017 19:05

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-1 (0-2)		
<b>Lab Sample ID:</b>	170605-03	<b>Date Sampled:</b>	2/14/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/17/2017
3,3'-Dichlorobenzidine	< 433	ug/Kg	2/23/2017 19:05
3-Nitroaniline	< 866	ug/Kg	2/23/2017 19:05
4-Bromophenyl phenyl ether	< 433	ug/Kg	2/23/2017 19:05
4-Chloroaniline	< 433	ug/Kg	2/23/2017 19:05
4-Chlorophenyl phenyl ether	< 433	ug/Kg	2/23/2017 19:05
4-Nitroaniline	< 866	ug/Kg	2/23/2017 19:05
Acenaphthene	< 433	ug/Kg	2/23/2017 19:05
Acenaphthylene	< 433	ug/Kg	2/23/2017 19:05
Acetophenone	< 433	ug/Kg	2/23/2017 19:05
Anthracene	< 433	ug/Kg	2/23/2017 19:05
Atrazine	< 433	ug/Kg	2/23/2017 19:05
Benzaldehyde	< 433	ug/Kg	2/23/2017 19:05
Benzo (a) anthracene	< 433	ug/Kg	2/23/2017 19:05
Benzo (a) pyrene	< 433	ug/Kg	2/23/2017 19:05
Benzo (b) fluoranthene	< 433	ug/Kg	2/23/2017 19:05
Benzo (g,h,i) perylene	< 433	ug/Kg	2/23/2017 19:05
Benzo (k) fluoranthene	< 433	ug/Kg	2/23/2017 19:05
Bis (2-chloroethoxy) methane	< 433	ug/Kg	2/23/2017 19:05
Bis (2-chloroethyl) ether	< 433	ug/Kg	2/23/2017 19:05
Bis (2-ethylhexyl) phthalate	< 433	ug/Kg	2/23/2017 19:05
Butylbenzylphthalate	< 433	ug/Kg	2/23/2017 19:05
Caprolactam	< 433	ug/Kg	2/23/2017 19:05
Carbazole	< 433	ug/Kg	2/23/2017 19:05
Chrysene	< 433	ug/Kg	2/23/2017 19:05
Dibenz (a,h) anthracene	< 433	ug/Kg	2/23/2017 19:05
Dibenzofuran	< 433	ug/Kg	2/23/2017 19:05
Diethyl phthalate	< 433	ug/Kg	2/23/2017 19:05
Dimethyl phthalate	< 866	ug/Kg	2/23/2017 19:05
Di-n-butyl phthalate	< 433	ug/Kg	2/23/2017 19:05
Di-n-octylphthalate	< 433	ug/Kg	2/23/2017 19:05
Fluoranthene	< 433	ug/Kg	2/23/2017 19:05
Fluorene	< 433	ug/Kg	2/23/2017 19:05

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (0-2)

**Lab Sample ID:** 170605-03

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Hexachlorobenzene	< 433	ug/Kg	2/23/2017	19:05
Hexachlorobutadiene	< 433	ug/Kg	2/23/2017	19:05
Hexachlorocyclopentadiene	< 433	ug/Kg	2/23/2017	19:05
Hexachloroethane	< 433	ug/Kg	2/23/2017	19:05
Indeno (1,2,3-cd) pyrene	< 433	ug/Kg	2/23/2017	19:05
Isophorone	< 433	ug/Kg	2/23/2017	19:05
Naphthalene	< 433	ug/Kg	2/23/2017	19:05
Nitrobenzene	< 433	ug/Kg	2/23/2017	19:05
N-Nitroso-di-n-propylamine	< 433	ug/Kg	2/23/2017	19:05
N-Nitrosodiphenylamine	< 433	ug/Kg	2/23/2017	19:05
Phenanthrene	< 433	ug/Kg	2/23/2017	19:05
Pyrene	< 433	ug/Kg	2/23/2017	19:05

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	13.3	33.7 - 113	*	2/23/2017 19:05
Nitrobenzene-d5	20.4	33.3 - 91.5	*	2/23/2017 19:05
Terphenyl-d14	37.8	66.1 - 113	*	2/23/2017 19:05

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/22/2017  
**Data File:** B17373.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 7.98	ug/Kg		2/21/2017 20:44
1,1,2,2-Tetrachloroethane	< 7.98	ug/Kg		2/21/2017 20:44
1,1,2-Trichloroethane	< 7.98	ug/Kg		2/21/2017 20:44
1,1-Dichloroethane	< 7.98	ug/Kg		2/21/2017 20:44
1,1-Dichloroethene	< 7.98	ug/Kg		2/21/2017 20:44
1,2,3-Trichlorobenzene	< 20.0	ug/Kg		2/21/2017 20:44
1,2,4-Trichlorobenzene	< 20.0	ug/Kg		2/21/2017 20:44
1,2,4-Trimethylbenzene	< 7.98	ug/Kg		2/21/2017 20:44
1,2-Dibromo-3-Chloropropane	< 39.9	ug/Kg		2/21/2017 20:44
1,2-Dibromoethane	< 7.98	ug/Kg		2/21/2017 20:44

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (0-2)

**Lab Sample ID:** 170605-03

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

1,2-Dichlorobenzene	< 7.98	ug/Kg	2/21/2017 20:44
1,2-Dichloroethane	< 7.98	ug/Kg	2/21/2017 20:44
1,2-Dichloropropane	< 7.98	ug/Kg	2/21/2017 20:44
1,3,5-Trimethylbenzene	< 7.98	ug/Kg	2/21/2017 20:44
1,3-Dichlorobenzene	< 7.98	ug/Kg	2/21/2017 20:44
1,4-Dichlorobenzene	< 7.98	ug/Kg	2/21/2017 20:44
1,4-dioxane	< 79.8	ug/Kg	2/21/2017 20:44
2-Butanone	< 39.9	ug/Kg	2/21/2017 20:44
2-Hexanone	< 20.0	ug/Kg	2/21/2017 20:44
4-Methyl-2-pentanone	< 20.0	ug/Kg	2/21/2017 20:44
Acetone	< 39.9	ug/Kg	2/21/2017 20:44
Benzene	< 7.98	ug/Kg	2/21/2017 20:44
Bromochloromethane	< 20.0	ug/Kg	2/21/2017 20:44
Bromodichloromethane	< 7.98	ug/Kg	2/21/2017 20:44
Bromoform	< 20.0	ug/Kg	2/21/2017 20:44
Bromomethane	< 7.98	ug/Kg	2/21/2017 20:44
Carbon disulfide	< 7.98	ug/Kg	2/21/2017 20:44
Carbon Tetrachloride	< 7.98	ug/Kg	2/21/2017 20:44
Chlorobenzene	< 7.98	ug/Kg	2/21/2017 20:44
Chloroethane	< 7.98	ug/Kg	2/21/2017 20:44
Chloroform	< 7.98	ug/Kg	2/21/2017 20:44
Chloromethane	< 7.98	ug/Kg	2/21/2017 20:44
cis-1,2-Dichloroethene	< 7.98	ug/Kg	2/21/2017 20:44
cis-1,3-Dichloropropene	< 7.98	ug/Kg	2/21/2017 20:44
Cyclohexane	< 39.9	ug/Kg	2/21/2017 20:44
Dibromochloromethane	< 7.98	ug/Kg	2/21/2017 20:44
Dichlorodifluoromethane	< 7.98	ug/Kg	2/21/2017 20:44
Ethylbenzene	< 7.98	ug/Kg	2/21/2017 20:44
Freon 113	< 7.98	ug/Kg	2/21/2017 20:44
Isopropylbenzene	< 7.98	ug/Kg	2/21/2017 20:44
m,p-Xylene	< 7.98	ug/Kg	2/21/2017 20:44
Methyl acetate	< 7.98	ug/Kg	2/21/2017 20:44

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (0-2)

**Lab Sample ID:** 170605-03

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Methyl tert-butyl Ether	< 7.98	ug/Kg	2/21/2017 20:44
Methylcyclohexane	< 7.98	ug/Kg	2/21/2017 20:44
Methylene chloride	< 20.0	ug/Kg	2/21/2017 20:44
Naphthalene	< 20.0	ug/Kg	2/21/2017 20:44
n-Butylbenzene	< 7.98	ug/Kg	2/21/2017 20:44
n-Propylbenzene	< 7.98	ug/Kg	2/21/2017 20:44
o-Xylene	< 7.98	ug/Kg	2/21/2017 20:44
p-Isopropyltoluene	< 7.98	ug/Kg	2/21/2017 20:44
sec-Butylbenzene	< 7.98	ug/Kg	2/21/2017 20:44
Styrene	< 20.0	ug/Kg	2/21/2017 20:44
tert-Butylbenzene	< 7.98	ug/Kg	2/21/2017 20:44
Tetrachloroethene	< 7.98	ug/Kg	2/21/2017 20:44
Toluene	< 7.98	ug/Kg	2/21/2017 20:44
trans-1,2-Dichloroethene	< 7.98	ug/Kg	2/21/2017 20:44
trans-1,3-Dichloropropene	< 7.98	ug/Kg	2/21/2017 20:44
Trichloroethene	< 7.98	ug/Kg	2/21/2017 20:44
Trichlorofluoromethane	< 7.98	ug/Kg	2/21/2017 20:44
Vinyl chloride	< 7.98	ug/Kg	2/21/2017 20:44

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>200</b>	82.1 - 123	*	2/21/2017 20:44
4-Bromofluorobenzene	<b>54.2</b>	84.6 - 112	*	2/21/2017 20:44
Pentafluorobenzene	<b>99.8</b>	91.4 - 111		2/21/2017 20:44
Toluene-D8	<b>83.7</b>	90.3 - 108	*	2/21/2017 20:44

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L

**Data File:** x39365.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.750	mg/Kg		2/24/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-1 (0-2)

**Lab Sample ID:** 170605-03

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 2/22/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (10-12)

**Lab Sample ID:** 170605-04

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0946	mg/Kg		2/23/2017 17:59

Method Reference(s): EPA 7471B  
Preparation Date: 2/23/2017  
Data File: Hg170223C

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	12900	mg/Kg		2/23/2017 13:46
Antimony	< 4.55	mg/Kg		2/22/2017 15:37
Arsenic	32.8	mg/Kg		2/22/2017 15:37
Barium	411	mg/Kg		2/22/2017 15:37
Beryllium	1.60	mg/Kg		2/22/2017 15:37
Cadmium	< 0.379	mg/Kg		2/22/2017 15:37
Calcium	8890	mg/Kg		2/23/2017 13:46
Chromium	20.9	mg/Kg		2/22/2017 15:37
Cobalt	7.35	mg/Kg		2/22/2017 15:37
Copper	25.2	mg/Kg		2/22/2017 15:37
Iron	27100	mg/Kg		2/23/2017 13:46
Lead	9.71	mg/Kg		2/22/2017 15:37
Magnesium	1220	mg/Kg		2/22/2017 15:37
Manganese	61.7	mg/Kg		2/22/2017 15:37
Nickel	17.0	mg/Kg		2/22/2017 15:37
Potassium	1160	mg/Kg		2/22/2017 15:37
Selenium	3.83	mg/Kg		2/22/2017 15:37
Silver	< 0.758	mg/Kg		2/23/2017 13:46
Sodium	607	mg/Kg		2/22/2017 15:37
Thallium	2.58	mg/Kg		2/22/2017 15:37
Vanadium	1200	mg/Kg		2/22/2017 15:37
Zinc	25.3	mg/Kg		2/22/2017 15:37

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (10-12)

**Lab Sample ID:** 170605-04

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/21/2017  
**Data File:** 022317A

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0484	mg/Kg		2/24/2017 14:17
PCB-1221	< 0.0484	mg/Kg		2/24/2017 14:17
PCB-1232	< 0.0484	mg/Kg		2/24/2017 14:17
PCB-1242	< 0.0484	mg/Kg		2/24/2017 14:17
PCB-1248	< 0.0484	mg/Kg		2/24/2017 14:17
PCB-1254	< 0.0484	mg/Kg		2/24/2017 14:17
PCB-1260	< 0.0484	mg/Kg		2/24/2017 14:17
PCB-1262	< 0.0484	mg/Kg		2/24/2017 14:17
PCB-1268	< 0.0484	mg/Kg		2/24/2017 14:17

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	41.6	10 - 142		2/24/2017 14:17
Tetrachloro-m-xylene	28.9	10 - 136		2/24/2017 14:17

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/22/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 4.84	ug/Kg		2/23/2017 18:45
4,4-DDE	< 4.84	ug/Kg		2/23/2017 18:45
4,4-DDT	< 4.84	ug/Kg		2/23/2017 18:45
Aldrin	< 4.84	ug/Kg		2/23/2017 18:45
alpha-BHC	< 4.84	ug/Kg		2/23/2017 18:45
beta-BHC	< 4.84	ug/Kg		2/23/2017 18:45
cis-Chlordane	< 4.84	ug/Kg		2/23/2017 18:45
delta-BHC	< 4.84	ug/Kg		2/23/2017 18:45
Dieldrin	< 4.84	ug/Kg		2/23/2017 18:45

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (10-12)

**Lab Sample ID:** 170605-04

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Endosulfan I	< 4.84	ug/Kg	2/23/2017	18:45
Endosulfan II	< 4.84	ug/Kg	2/23/2017	18:45
Endosulfan Sulfate	< 4.84	ug/Kg	2/23/2017	18:45
Endrin	< 4.84	ug/Kg	2/23/2017	18:45
Endrin Aldehyde	< 4.84	ug/Kg	2/23/2017	18:45
Endrin Ketone	< 4.84	ug/Kg	2/23/2017	18:45
gamma-BHC (Lindane)	< 4.84	ug/Kg	2/23/2017	18:45
Heptachlor	< 4.84	ug/Kg	2/23/2017	18:45
Heptachlor Epoxide	< 4.84	ug/Kg	2/23/2017	18:45
Methoxychlor	< 4.84	ug/Kg	2/23/2017	18:45
Toxaphene	< 48.4	ug/Kg	2/23/2017	18:45
trans-Chlordane	< 4.84	ug/Kg	2/23/2017	18:45

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	67.4	10 - 152		2/23/2017 18:45
Tetrachloro-m-xylene (1)	45.4	10 - 91.1		2/23/2017 18:45

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/22/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 482	ug/Kg		2/23/2017 19:34
1,2,4,5-Tetrachlorobenzene	< 482	ug/Kg		2/23/2017 19:34
1,2,4-Trichlorobenzene	< 482	ug/Kg		2/23/2017 19:34
1,2-Dichlorobenzene	< 482	ug/Kg		2/23/2017 19:34
1,3-Dichlorobenzene	< 482	ug/Kg		2/23/2017 19:34
1,4-Dichlorobenzene	< 482	ug/Kg		2/23/2017 19:34
2,2-Oxybis (1-chloropropane)	< 482	ug/Kg		2/23/2017 19:34
2,4-Dinitrotoluene	< 482	ug/Kg		2/23/2017 19:34
2,6-Dinitrotoluene	< 482	ug/Kg		2/23/2017 19:34
2-Chloronaphthalene	< 482	ug/Kg		2/23/2017 19:34
2-Methylnaphthalene	< 482	ug/Kg		2/23/2017 19:34
2-Nitroaniline	< 965	ug/Kg		2/23/2017 19:34

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (10-12)

**Lab Sample ID:** 170605-04

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

3,3'-Dichlorobenzidine	< 482	ug/Kg	2/23/2017 19:34
3-Nitroaniline	< 965	ug/Kg	2/23/2017 19:34
4-Bromophenyl phenyl ether	< 482	ug/Kg	2/23/2017 19:34
4-Chloroaniline	< 482	ug/Kg	2/23/2017 19:34
4-Chlorophenyl phenyl ether	< 482	ug/Kg	2/23/2017 19:34
4-Nitroaniline	< 965	ug/Kg	2/23/2017 19:34
Acenaphthene	< 482	ug/Kg	2/23/2017 19:34
Acenaphthylene	< 482	ug/Kg	2/23/2017 19:34
Acetophenone	< 482	ug/Kg	2/23/2017 19:34
Anthracene	< 482	ug/Kg	2/23/2017 19:34
Atrazine	< 482	ug/Kg	2/23/2017 19:34
Benzaldehyde	< 482	ug/Kg	2/23/2017 19:34
Benzo (a) anthracene	< 482	ug/Kg	2/23/2017 19:34
Benzo (a) pyrene	< 482	ug/Kg	2/23/2017 19:34
Benzo (b) fluoranthene	< 482	ug/Kg	2/23/2017 19:34
Benzo (g,h,i) perylene	< 482	ug/Kg	2/23/2017 19:34
Benzo (k) fluoranthene	< 482	ug/Kg	2/23/2017 19:34
Bis (2-chloroethoxy) methane	< 482	ug/Kg	2/23/2017 19:34
Bis (2-chloroethyl) ether	< 482	ug/Kg	2/23/2017 19:34
Bis (2-ethylhexyl) phthalate	< 482	ug/Kg	2/23/2017 19:34
Butylbenzylphthalate	< 482	ug/Kg	2/23/2017 19:34
Caprolactam	< 482	ug/Kg	2/23/2017 19:34
Carbazole	< 482	ug/Kg	2/23/2017 19:34
Chrysene	< 482	ug/Kg	2/23/2017 19:34
Dibenz (a,h) anthracene	< 482	ug/Kg	2/23/2017 19:34
Dibenzofuran	< 482	ug/Kg	2/23/2017 19:34
Diethyl phthalate	< 482	ug/Kg	2/23/2017 19:34
Dimethyl phthalate	< 965	ug/Kg	2/23/2017 19:34
Di-n-butyl phthalate	< 482	ug/Kg	2/23/2017 19:34
Di-n-octylphthalate	< 482	ug/Kg	2/23/2017 19:34
Fluoranthene	< 482	ug/Kg	2/23/2017 19:34
Fluorene	< 482	ug/Kg	2/23/2017 19:34

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (10-12)

**Lab Sample ID:** 170605-04

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Hexachlorobenzene	< 482	ug/Kg	2/23/2017	19:34
Hexachlorobutadiene	< 482	ug/Kg	2/23/2017	19:34
Hexachlorocyclopentadiene	< 482	ug/Kg	2/23/2017	19:34
Hexachloroethane	< 482	ug/Kg	2/23/2017	19:34
Indeno (1,2,3-cd) pyrene	< 482	ug/Kg	2/23/2017	19:34
Isophorone	< 482	ug/Kg	2/23/2017	19:34
Naphthalene	< 482	ug/Kg	2/23/2017	19:34
Nitrobenzene	< 482	ug/Kg	2/23/2017	19:34
N-Nitroso-di-n-propylamine	< 482	ug/Kg	2/23/2017	19:34
N-Nitrosodiphenylamine	< 482	ug/Kg	2/23/2017	19:34
Phenanthrene	< 482	ug/Kg	2/23/2017	19:34
Pyrene	< 482	ug/Kg	2/23/2017	19:34

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	13.0	33.7 - 113	*	2/23/2017 19:34
Nitrobenzene-d5	25.2	33.3 - 91.5	*	2/23/2017 19:34
Terphenyl-d14	5.26	66.1 - 113	*	2/23/2017 19:34

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/22/2017  
**Data File:** B17374.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 10.5	ug/Kg		2/21/2017 21:08
1,1,1,2-Tetrachloroethane	< 10.5	ug/Kg		2/21/2017 21:08
1,1,2-Trichloroethane	< 10.5	ug/Kg		2/21/2017 21:08
1,1-Dichloroethane	< 10.5	ug/Kg		2/21/2017 21:08
1,1-Dichloroethene	< 10.5	ug/Kg		2/21/2017 21:08
1,2,3-Trichlorobenzene	< 26.4	ug/Kg		2/21/2017 21:08
1,2,4-Trichlorobenzene	< 26.4	ug/Kg		2/21/2017 21:08
1,2,4-Trimethylbenzene	< 10.5	ug/Kg		2/21/2017 21:08
1,2-Dibromo-3-Chloropropane	< 52.7	ug/Kg		2/21/2017 21:08
1,2-Dibromoethane	< 10.5	ug/Kg		2/21/2017 21:08

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**Client:** Bergmann Associates
**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (10-12)

**Lab Sample ID:** 170605-04

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

1,2-Dichlorobenzene	< 10.5	ug/Kg	2/21/2017 21:08
1,2-Dichloroethane	< 10.5	ug/Kg	2/21/2017 21:08
1,2-Dichloropropane	< 10.5	ug/Kg	2/21/2017 21:08
1,3,5-Trimethylbenzene	< 10.5	ug/Kg	2/21/2017 21:08
1,3-Dichlorobenzene	< 10.5	ug/Kg	2/21/2017 21:08
1,4-Dichlorobenzene	< 10.5	ug/Kg	2/21/2017 21:08
1,4-dioxane	< 10.5	ug/Kg	2/21/2017 21:08
2-Butanone	< 52.7	ug/Kg	2/21/2017 21:08
2-Hexanone	< 26.4	ug/Kg	2/21/2017 21:08
4-Methyl-2-pentanone	< 26.4	ug/Kg	2/21/2017 21:08
Acetone	<b>174</b>	ug/Kg	2/21/2017 21:08
Benzene	< 10.5	ug/Kg	2/21/2017 21:08
Bromochloromethane	< 26.4	ug/Kg	2/21/2017 21:08
Bromodichloromethane	< 10.5	ug/Kg	2/21/2017 21:08
Bromoform	< 26.4	ug/Kg	2/21/2017 21:08
Bromomethane	< 10.5	ug/Kg	2/21/2017 21:08
Carbon disulfide	< 10.5	ug/Kg	2/21/2017 21:08
Carbon Tetrachloride	< 10.5	ug/Kg	2/21/2017 21:08
Chlorobenzene	< 10.5	ug/Kg	2/21/2017 21:08
Chloroethane	< 10.5	ug/Kg	2/21/2017 21:08
Chloroform	< 10.5	ug/Kg	2/21/2017 21:08
Chloromethane	< 10.5	ug/Kg	2/21/2017 21:08
cis-1,2-Dichloroethene	< 10.5	ug/Kg	2/21/2017 21:08
cis-1,3-Dichloropropene	< 10.5	ug/Kg	2/21/2017 21:08
Cyclohexane	< 52.7	ug/Kg	2/21/2017 21:08
Dibromochloromethane	< 10.5	ug/Kg	2/21/2017 21:08
Dichlorodifluoromethane	< 10.5	ug/Kg	2/21/2017 21:08
Ethylbenzene	< 10.5	ug/Kg	2/21/2017 21:08
Freon 113	< 10.5	ug/Kg	2/21/2017 21:08
Isopropylbenzene	< 10.5	ug/Kg	2/21/2017 21:08
m,p-Xylene	< 10.5	ug/Kg	2/21/2017 21:08
Methyl acetate	< 10.5	ug/Kg	2/21/2017 21:08

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-1 (10-12)

**Lab Sample ID:** 170605-04

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

Methyl tert-butyl Ether	< 10.5	ug/Kg	2/21/2017	21:08
Methylcyclohexane	< 10.5	ug/Kg	2/21/2017	21:08
Methylene chloride	< 26.4	ug/Kg	2/21/2017	21:08
Naphthalene	< 26.4	ug/Kg	2/21/2017	21:08
n-Butylbenzene	< 10.5	ug/Kg	2/21/2017	21:08
n-Propylbenzene	< 10.5	ug/Kg	2/21/2017	21:08
o-Xylene	< 10.5	ug/Kg	2/21/2017	21:08
p-Isopropyltoluene	< 10.5	ug/Kg	2/21/2017	21:08
sec-Butylbenzene	< 10.5	ug/Kg	2/21/2017	21:08
Styrene	< 26.4	ug/Kg	2/21/2017	21:08
tert-Butylbenzene	< 10.5	ug/Kg	2/21/2017	21:08
Tetrachloroethene	< 10.5	ug/Kg	2/21/2017	21:08
Toluene	< 10.5	ug/Kg	2/21/2017	21:08
trans-1,2-Dichloroethene	< 10.5	ug/Kg	2/21/2017	21:08
trans-1,3-Dichloropropene	< 10.5	ug/Kg	2/21/2017	21:08
Trichloroethene	< 10.5	ug/Kg	2/21/2017	21:08
Trichlorofluoromethane	< 10.5	ug/Kg	2/21/2017	21:08
Vinyl chloride	< 10.5	ug/Kg	2/21/2017	21:08

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	265	82.1 - 123	*	2/21/2017 21:08
4-Bromofluorobenzene	54.1	84.6 - 112	*	2/21/2017 21:08
Pentafluorobenzene	91.6	91.4 - 111		2/21/2017 21:08
Toluene-D8	72.5	90.3 - 108	*	2/21/2017 21:08

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39366.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.683	mg/Kg		2/24/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-1 (10-12)

**Lab Sample ID:** 170605-04

**Date Sampled:** 2/14/2017

**Matrix:** Soil

**Date Received:** 2/17/2017

---

**Method Reference(s):** EPA 9014

**Preparation Date:** 2/22/2017

DRAFT



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*\*\* = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### **Warranty.**

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### **Scope and Compensation.**

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### **Prices.**

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### **Limitations of Liability.**

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### **Hazard Disclosure.**

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### **Sample Handling.**

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### **Legal Responsibility.**

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### **Assignment.**

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### **Force Majeure.**

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### **Law.**

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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# CHAIN OF CUSTODY

1 of 2



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**REPORT TO:**

**INVOICE TO:**

LAB PROJECT ID

170605

Quotation #: MS 0201174

Email: [ms@paradigmenv.com](mailto:ms@paradigmenv.com)

Sdenne @bergman.pc.com

CLIENT: Bergman Associates  
 ADDRESS: 380 E. Grand St  
 CITY: Rochester STATE: NY ZIP: 14604  
 PHONE: 585-498-7778

CLIENT: Bergman  
 ADDRESS: ←  
 CITY: ← STATE: ← ZIP: ←  
 PHONE: ←

ATTN: Megan Burzio + Steve DeMaio  
 Matrix Codes: AQ - Aqueous Liquid  
NG - Non-Aqueous Liquid  
WA - Water  
WG - Groundwater  
DW - Drinking Water  
WW - Wastewater  
SO - Soil  
SL - Sludge  
SD - Solid  
PT - Paint  
WP - Wipe  
CK - Caulk  
OL - Oil  
AR - Air

**PROJECT REFERENCE**

*Part of Albany*

**REQUESTED ANALYSIS**

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRADES	SAMPLE IDENTIFIER	MATRIX	CONTAMINANTS	ANALYSIS	REMARKS	PARADIGM LAB SAMPLE NUMBER
2/14/2017	1330	X	B	B-4 (0-2)	So	X	TCL (P5) VOL		01
2/14/2017	1340	X	B	B-4 (2-4)	So	X	TCL Bns		02
2/15/2017	1420	X	B	B-1 (0-2)	So	X	TAL Metals		03
2/15/2017	1430	X	B	B-1 (10-12)	So	X	Pesticides		04
						X	PEBS		
						X	Total Cyanide		

Turnaround Time	Report Supplements
Availability contingent upon lab approval; additional fees may apply. Standard 5 day <input checked="" type="checkbox"/> 10 day <input type="checkbox"/> Rush 3 day <input type="checkbox"/> Rush 2 day <input type="checkbox"/> Rush 1 day <input type="checkbox"/> Other <input type="checkbox"/> please indicate date needed: _____	None Required <input checked="" type="checkbox"/> Batch QC <input type="checkbox"/> Category A <input type="checkbox"/> Category B <input type="checkbox"/> Other <input type="checkbox"/> please indicate package needed: _____
	None Required <input type="checkbox"/> Basic EDD <input type="checkbox"/> NYSDEC EDD <input checked="" type="checkbox"/> Other EDD <input type="checkbox"/> please indicate EDD needed: _____

Sampled By: Megan E. Burzio Date/Time: 2/17/2017 15:15 Total Cost:

Relinquished By: Megan E. Burzio Date/Time: 2/17/2017 15:15

Received By: Steve DeMaio Date/Time: 2/17/17 15:40 P.I.F.

Received @ Lab By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.





Chain of Custody Supplement

Client: Bergmann Associates Completed by: Glenn Pezzulo  
 Lab Project ID: 170605 Date: 2/17/17

**Sample Condition Requirements**  
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 5035	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Metals
Comments	2°C _____		
Sufficient Sample Quantity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

*Analytical Report For*  
**Bergmann Associates**

*For Lab Project ID*

**170698**

*Referencing*

**Port Of Albany**

*Prepared*

**Friday, March 03, 2017**

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in black ink, appearing to be "D. [unclear]", is written over a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

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*Report Prepared Friday, March 03, 2017*

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-3 (0-2)

**Lab Sample ID:** 170698-01

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0449	mg/Kg		2/27/2017 13:42

Method Reference(s): EPA 7471B  
Preparation Date: 2/26/2017  
Data File: Hg170227B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	10200	mg/Kg		2/28/2017 00:22
Antimony	< 3.37	mg/Kg		2/28/2017 18:29
Arsenic	6.87	mg/Kg		2/28/2017 00:22
Barium	93.1	mg/Kg		2/28/2017 00:22
Beryllium	0.565	mg/Kg		2/28/2017 00:22
Cadmium	< 0.280	mg/Kg		2/28/2017 00:22
Calcium	10500	mg/Kg		2/28/2017 00:22
Chromium	12.8	mg/Kg		2/28/2017 00:22
Cobalt	7.84	mg/Kg		2/28/2017 00:22
Copper	18.4	mg/Kg		2/28/2017 00:22
Iron	22100	mg/Kg		2/28/2017 18:29
Lead	11.4	mg/Kg		2/28/2017 18:29
Magnesium	6260	mg/Kg		2/28/2017 00:22
Manganese	350	mg/Kg		2/28/2017 00:22
Nickel	49.3	mg/Kg		2/28/2017 00:22
Potassium	1210	mg/Kg		2/28/2017 00:22
Selenium	< 1.12	mg/Kg		2/28/2017 00:22
Silver	1.77	mg/Kg		2/28/2017 00:22
Sodium	< 140	mg/Kg		2/28/2017 00:22
Thallium	< 1.40	mg/Kg		2/28/2017 00:22
Vanadium	230	mg/Kg		2/28/2017 00:22
Zinc	41.9	mg/Kg		2/28/2017 00:22

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-3 (0-2)

**Lab Sample ID:** 170698-01

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/25/2017  
**Data File:** 022717C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0332	mg/Kg		3/2/2017 00:40
PCB-1221	< 0.0332	mg/Kg		3/2/2017 00:40
PCB-1232	< 0.0332	mg/Kg		3/2/2017 00:40
PCB-1242	< 0.0332	mg/Kg		3/2/2017 00:40
PCB-1248	< 0.0332	mg/Kg		3/2/2017 00:40
PCB-1254	< 0.0332	mg/Kg		3/2/2017 00:40
PCB-1260	< 0.0332	mg/Kg		3/2/2017 00:40
PCB-1262	< 0.0332	mg/Kg		3/2/2017 00:40
PCB-1268	< 0.0332	mg/Kg		3/2/2017 00:40

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	69.5	10 - 142		3/2/2017 00:40
Tetrachloro-m-xylene	63.8	10 - 136		3/2/2017 00:40

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.32	ug/Kg		2/28/2017 16:03
4,4-DDE	< 3.32	ug/Kg		2/28/2017 16:03
4,4-DDT	< 3.32	ug/Kg		2/28/2017 16:03
Aldrin	< 3.32	ug/Kg		2/28/2017 16:03
alpha-BHC	< 3.32	ug/Kg		2/28/2017 16:03
beta-BHC	< 3.32	ug/Kg		2/28/2017 16:03
cis-Chlordane	< 3.32	ug/Kg		2/28/2017 16:03
delta-BHC	< 3.32	ug/Kg		2/28/2017 16:03
Dieldrin	< 3.32	ug/Kg		2/28/2017 16:03

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-3 (0-2)

**Lab Sample ID:** 170698-01

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Endosulfan I	< 3.32	ug/Kg	2/28/2017	16:03
Endosulfan II	< 3.32	ug/Kg	2/28/2017	16:03
Endosulfan Sulfate	< 3.32	ug/Kg	2/28/2017	16:03
Endrin	< 3.32	ug/Kg	2/28/2017	16:03
Endrin Aldehyde	< 3.32	ug/Kg	2/28/2017	16:03
Endrin Ketone	< 3.32	ug/Kg	2/28/2017	16:03
gamma-BHC (Lindane)	< 3.32	ug/Kg	2/28/2017	16:03
Heptachlor	< 3.32	ug/Kg	2/28/2017	16:03
Heptachlor Epoxide	< 3.32	ug/Kg	2/28/2017	16:03
Methoxychlor	< 3.32	ug/Kg	2/28/2017	16:03
Toxaphene	< 33.2	ug/Kg	2/28/2017	16:03
trans-Chlordane	< 3.32	ug/Kg	2/28/2017	16:03

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	48.3	10 - 152		2/28/2017 16:03
Tetrachloro-m-xylene (1)	47.6	10 - 91.1		2/28/2017 16:03

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 335	ug/Kg		3/2/2017 22:47
1,2,4,5-Tetrachlorobenzene	< 335	ug/Kg		3/2/2017 22:47
1,2,4-Trichlorobenzene	< 335	ug/Kg		3/2/2017 22:47
1,2-Dichlorobenzene	< 335	ug/Kg		3/2/2017 22:47
1,3-Dichlorobenzene	< 335	ug/Kg		3/2/2017 22:47
1,4-Dichlorobenzene	< 335	ug/Kg		3/2/2017 22:47
2,2-Oxybis (1-chloropropane)	< 335	ug/Kg		3/2/2017 22:47
2,4-Dinitrotoluene	< 335	ug/Kg		3/2/2017 22:47
2,6-Dinitrotoluene	< 335	ug/Kg		3/2/2017 22:47
2-Chloronaphthalene	< 335	ug/Kg		3/2/2017 22:47
2-Methylnaphthalene	< 335	ug/Kg		3/2/2017 22:47
2-Nitroaniline	< 670	ug/Kg		3/2/2017 22:47

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-3 (0-2)  
**Lab Sample ID:** 170698-01 **Date Sampled:** 2/20/2017  
**Matrix:** Soil **Date Received:** 2/24/2017

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3,3'-Dichlorobenzidine	< 335	ug/Kg	3/2/2017 22:47
3-Nitroaniline	< 670	ug/Kg	3/2/2017 22:47
4-Bromophenyl phenyl ether	< 335	ug/Kg	3/2/2017 22:47
4-Chloroaniline	< 335	ug/Kg	3/2/2017 22:47
4-Chlorophenyl phenyl ether	< 335	ug/Kg	3/2/2017 22:47
4-Nitroaniline	< 670	ug/Kg	3/2/2017 22:47
Acenaphthene	< 335	ug/Kg	3/2/2017 22:47
Acenaphthylene	< 335	ug/Kg	3/2/2017 22:47
Acetophenone	< 335	ug/Kg	3/2/2017 22:47
Anthracene	< 335	ug/Kg	3/2/2017 22:47
Atrazine	< 335	ug/Kg	3/2/2017 22:47
Benzaldehyde	< 335	ug/Kg	3/2/2017 22:47
Benzo (a) anthracene	<b>393</b>	ug/Kg	3/2/2017 22:47
Benzo (a) pyrene	< 335	ug/Kg	3/2/2017 22:47
Benzo (b) fluoranthene	<b>382</b>	ug/Kg	3/2/2017 22:47
Benzo (g,h,i) perylene	< 335	ug/Kg	3/2/2017 22:47
Benzo (k) fluoranthene	< 335	ug/Kg	3/2/2017 22:47
Bis (2-chloroethoxy) methane	< 335	ug/Kg	3/2/2017 22:47
Bis (2-chloroethyl) ether	< 335	ug/Kg	3/2/2017 22:47
Bis (2-ethylhexyl) phthalate	< 335	ug/Kg	3/2/2017 22:47
Butylbenzylphthalate	< 335	ug/Kg	3/2/2017 22:47
Caprolactam	< 335	ug/Kg	3/2/2017 22:47
Carbazole	< 335	ug/Kg	3/2/2017 22:47
Chrysene	<b>402</b>	ug/Kg	3/2/2017 22:47
Dibenz (a,h) anthracene	< 335	ug/Kg	3/2/2017 22:47
Dibenzofuran	< 335	ug/Kg	3/2/2017 22:47
Diethyl phthalate	< 335	ug/Kg	3/2/2017 22:47
Dimethyl phthalate	< 670	ug/Kg	3/2/2017 22:47
Di-n-butyl phthalate	< 335	ug/Kg	3/2/2017 22:47
Di-n-octylphthalate	< 335	ug/Kg	3/2/2017 22:47
Fluoranthene	<b>807</b>	ug/Kg	3/2/2017 22:47
Fluorene	< 335	ug/Kg	3/2/2017 22:47

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-3 (0-2)

**Lab Sample ID:** 170698-01

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Hexachlorobenzene	< 335	ug/Kg	3/2/2017 22:47
Hexachlorobutadiene	< 335	ug/Kg	3/2/2017 22:47
Hexachlorocyclopentadiene	< 335	ug/Kg	3/2/2017 22:47
Hexachloroethane	< 335	ug/Kg	3/2/2017 22:47
Indeno (1,2,3-cd) pyrene	< 335	ug/Kg	3/2/2017 22:47
Isophorone	< 335	ug/Kg	3/2/2017 22:47
Naphthalene	< 335	ug/Kg	3/2/2017 22:47
Nitrobenzene	< 335	ug/Kg	3/2/2017 22:47
N-Nitroso-di-n-propylamine	< 335	ug/Kg	3/2/2017 22:47
N-Nitrosodiphenylamine	< 335	ug/Kg	3/2/2017 22:47
Phenanthrene	< 335	ug/Kg	3/2/2017 22:47
Pyrene	<b>644</b>	ug/Kg	3/2/2017 22:47

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	<b>56.5</b>	33.7 - 113		3/2/2017 22:47
Nitrobenzene-d5	<b>54.5</b>	33.3 - 91.5		3/2/2017 22:47
Terphenyl-d14	<b>59.7</b>	66.1 - 113	*	3/2/2017 22:47

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/27/2017  
**Data File:** B17640.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 6.68	ug/Kg		3/2/2017 19:54
1,1,2,2-Tetrachloroethane	< 6.68	ug/Kg		3/2/2017 19:54
1,1,2-Trichloroethane	< 6.68	ug/Kg		3/2/2017 19:54
1,1-Dichloroethane	< 6.68	ug/Kg		3/2/2017 19:54
1,1-Dichloroethene	< 6.68	ug/Kg		3/2/2017 19:54
1,2,3-Trichlorobenzene	< 16.7	ug/Kg		3/2/2017 19:54
1,2,4-Trichlorobenzene	< 16.7	ug/Kg		3/2/2017 19:54
1,2,4-Trimethylbenzene	< 6.68	ug/Kg		3/2/2017 19:54
1,2-Dibromo-3-Chloropropane	< 33.4	ug/Kg		3/2/2017 19:54
1,2-Dibromoethane	< 6.68	ug/Kg		3/2/2017 19:54

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-3 (0-2)			
<b>Lab Sample ID:</b>	170698-01		<b>Date Sampled:</b>	2/20/2017
<b>Matrix:</b>	Soil		<b>Date Received:</b>	2/24/2017
1,2-Dichlorobenzene	< 6.68	ug/Kg		3/2/2017 19:54
1,2-Dichloroethane	< 6.68	ug/Kg		3/2/2017 19:54
1,2-Dichloropropane	< 6.68	ug/Kg		3/2/2017 19:54
1,3,5-Trimethylbenzene	< 6.68	ug/Kg		3/2/2017 19:54
1,3-Dichlorobenzene	< 6.68	ug/Kg		3/2/2017 19:54
1,4-Dichlorobenzene	< 6.68	ug/Kg		3/2/2017 19:54
1,4-dioxane	< 66.8	ug/Kg		3/2/2017 19:54
2-Butanone	< 33.4	ug/Kg		3/2/2017 19:54
2-Hexanone	< 16.7	ug/Kg		3/2/2017 19:54
4-Methyl-2-pentanone	< 16.7	ug/Kg		3/2/2017 19:54
Acetone	< 33.4	ug/Kg		3/2/2017 19:54
Benzene	< 6.68	ug/Kg		3/2/2017 19:54
Bromochloromethane	< 16.7	ug/Kg		3/2/2017 19:54
Bromodichloromethane	< 6.68	ug/Kg		3/2/2017 19:54
Bromoform	< 16.7	ug/Kg		3/2/2017 19:54
Bromomethane	< 6.68	ug/Kg		3/2/2017 19:54
Carbon disulfide	< 6.68	ug/Kg		3/2/2017 19:54
Carbon Tetrachloride	< 6.68	ug/Kg		3/2/2017 19:54
Chlorobenzene	< 6.68	ug/Kg		3/2/2017 19:54
Chloroethane	< 6.68	ug/Kg		3/2/2017 19:54
Chloroform	< 6.68	ug/Kg		3/2/2017 19:54
Chloromethane	< 6.68	ug/Kg		3/2/2017 19:54
cis-1,2-Dichloroethene	< 6.68	ug/Kg		3/2/2017 19:54
cis-1,3-Dichloropropene	< 6.68	ug/Kg		3/2/2017 19:54
Cyclohexane	< 33.4	ug/Kg		3/2/2017 19:54
Dibromochloromethane	< 6.68	ug/Kg		3/2/2017 19:54
Dichlorodifluoromethane	< 6.68	ug/Kg		3/2/2017 19:54
Ethylbenzene	< 6.68	ug/Kg		3/2/2017 19:54
Freon 113	< 6.68	ug/Kg		3/2/2017 19:54
Isopropylbenzene	< 6.68	ug/Kg		3/2/2017 19:54
m,p-Xylene	< 6.68	ug/Kg		3/2/2017 19:54
Methyl acetate	< 6.68	ug/Kg		3/2/2017 19:54

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-3 (0-2)

**Lab Sample ID:** 170698-01

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Methyl tert-butyl Ether	< 6.68	ug/Kg	3/2/2017	19:54
Methylcyclohexane	< 6.68	ug/Kg	3/2/2017	19:54
Methylene chloride	< 16.7	ug/Kg	3/2/2017	19:54
Naphthalene	< 16.7	ug/Kg	3/2/2017	19:54
n-Butylbenzene	< 6.68	ug/Kg	3/2/2017	19:54
n-Propylbenzene	< 6.68	ug/Kg	3/2/2017	19:54
o-Xylene	< 6.68	ug/Kg	3/2/2017	19:54
p-Isopropyltoluene	< 6.68	ug/Kg	3/2/2017	19:54
sec-Butylbenzene	< 6.68	ug/Kg	3/2/2017	19:54
Styrene	< 16.7	ug/Kg	3/2/2017	19:54
tert-Butylbenzene	< 6.68	ug/Kg	3/2/2017	19:54
Tetrachloroethene	< 6.68	ug/Kg	3/2/2017	19:54
Toluene	< 6.68	ug/Kg	3/2/2017	19:54
trans-1,2-Dichloroethene	< 6.68	ug/Kg	3/2/2017	19:54
trans-1,3-Dichloropropene	< 6.68	ug/Kg	3/2/2017	19:54
Trichloroethene	< 6.68	ug/Kg	3/2/2017	19:54
Trichlorofluoromethane	< 6.68	ug/Kg	3/2/2017	19:54
Vinyl chloride	< 6.68	ug/Kg	3/2/2017	19:54

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>98.8</b>	82.1 - 123		3/2/2017 19:54
4-Bromofluorobenzene	<b>88.4</b>	84.6 - 112		3/2/2017 19:54
Pentafluorobenzene	<b>99.3</b>	91.4 - 111		3/2/2017 19:54
Toluene-D8	<b>95.5</b>	90.3 - 108		3/2/2017 19:54

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39669.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.382	mg/Kg		2/28/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-3 (0-2)

**Lab Sample ID:** 170698-01

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 2/28/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-3 (2-4)

**Lab Sample ID:** 170698-02

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0130	mg/Kg		2/27/2017 13:46

Method Reference(s): EPA 7471B  
Preparation Date: 2/26/2017  
Data File: Hg170227B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	14100	mg/Kg		2/28/2017 00:27
Antimony	< 3.57	mg/Kg		2/28/2017 18:33
Arsenic	12.5	mg/Kg		2/28/2017 00:27
Barium	224	mg/Kg		2/28/2017 00:27
Beryllium	1.02	mg/Kg		2/28/2017 00:27
Cadmium	< 0.893	mg/Kg		2/28/2017 18:07
Calcium	6620	mg/Kg		2/28/2017 00:27
Chromium	12.9	mg/Kg		2/28/2017 00:27
Cobalt	6.99	mg/Kg		2/28/2017 00:27
Copper	16.7	mg/Kg		2/28/2017 00:27
Iron	43100	mg/Kg		2/28/2017 18:07
Lead	4.98	mg/Kg		2/28/2017 18:33
Magnesium	991	mg/Kg		2/28/2017 00:27
Manganese	77.8	mg/Kg		2/28/2017 00:27
Nickel	14.9	mg/Kg		2/28/2017 00:27
Potassium	1270	mg/Kg		2/28/2017 00:27
Selenium	< 1.19	mg/Kg		2/28/2017 00:27
Silver	3.69	mg/Kg		2/28/2017 00:27
Sodium	528	mg/Kg		2/28/2017 00:27
Thallium	< 1.49	mg/Kg		2/28/2017 00:27
Vanadium	26.2	mg/Kg		2/28/2017 00:27
Zinc	9.37	mg/Kg		2/28/2017 00:27

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-3 (2-4)

**Lab Sample ID:** 170698-02

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/25/2017  
**Data File:** 022717C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0359	mg/Kg		3/2/2017 01:02
PCB-1221	< 0.0359	mg/Kg		3/2/2017 01:02
PCB-1232	< 0.0359	mg/Kg		3/2/2017 01:02
PCB-1242	< 0.0359	mg/Kg		3/2/2017 01:02
PCB-1248	< 0.0359	mg/Kg		3/2/2017 01:02
PCB-1254	< 0.0359	mg/Kg		3/2/2017 01:02
PCB-1260	< 0.0359	mg/Kg		3/2/2017 01:02
PCB-1262	< 0.0359	mg/Kg		3/2/2017 01:02
PCB-1268	< 0.0359	mg/Kg		3/2/2017 01:02

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	70.7	10 - 142		3/2/2017 01:02
Tetrachloro-m-xylene	61.7	10 - 136		3/2/2017 01:02

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.59	ug/Kg		3/1/2017 20:13
4,4-DDE	< 3.59	ug/Kg		3/1/2017 20:13
4,4-DDT	< 3.59	ug/Kg		3/1/2017 20:13
Aldrin	< 3.59	ug/Kg		3/1/2017 20:13
alpha-BHC	< 3.59	ug/Kg		3/1/2017 20:13
beta-BHC	< 3.59	ug/Kg		3/1/2017 20:13
cis-Chlordane	< 3.59	ug/Kg		3/1/2017 20:13
delta-BHC	< 3.59	ug/Kg		3/1/2017 20:13
Dieldrin	< 3.59	ug/Kg		3/1/2017 20:13

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-3 (2-4)

**Lab Sample ID:** 170698-02

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Endosulfan I	< 3.59	ug/Kg	3/1/2017 20:13
Endosulfan II	< 3.59	ug/Kg	3/1/2017 20:13
Endosulfan Sulfate	< 3.59	ug/Kg	3/1/2017 20:13
Endrin	< 3.59	ug/Kg	3/1/2017 20:13
Endrin Aldehyde	< 3.59	ug/Kg	3/1/2017 20:13
Endrin Ketone	< 3.59	ug/Kg	3/1/2017 20:13
gamma-BHC (Lindane)	< 3.59	ug/Kg	3/1/2017 20:13
Heptachlor	< 3.59	ug/Kg	3/1/2017 20:13
Heptachlor Epoxide	< 3.59	ug/Kg	3/1/2017 20:13
Methoxychlor	< 3.59	ug/Kg	3/1/2017 20:13
Toxaphene	< 35.9	ug/Kg	3/1/2017 20:13
trans-Chlordane	< 3.59	ug/Kg	3/1/2017 20:13

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	50.1	10 - 152		3/1/2017 20:13
Tetrachloro-m-xylene (1)	38.7	10 - 91.1		3/1/2017 20:13

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 357	ug/Kg		3/2/2017 23:16
1,2,4,5-Tetrachlorobenzene	< 357	ug/Kg		3/2/2017 23:16
1,2,4-Trichlorobenzene	< 357	ug/Kg		3/2/2017 23:16
1,2-Dichlorobenzene	< 357	ug/Kg		3/2/2017 23:16
1,3-Dichlorobenzene	< 357	ug/Kg		3/2/2017 23:16
1,4-Dichlorobenzene	< 357	ug/Kg		3/2/2017 23:16
2,2-Oxybis (1-chloropropane)	< 357	ug/Kg		3/2/2017 23:16
2,4-Dinitrotoluene	< 357	ug/Kg		3/2/2017 23:16
2,6-Dinitrotoluene	< 357	ug/Kg		3/2/2017 23:16
2-Chloronaphthalene	< 357	ug/Kg		3/2/2017 23:16
2-Methylnaphthalene	< 357	ug/Kg		3/2/2017 23:16
2-Nitroaniline	< 713	ug/Kg		3/2/2017 23:16

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-3 (2-4)			
<b>Lab Sample ID:</b>	170698-02		<b>Date Sampled:</b>	2/20/2017
<b>Matrix:</b>	Soil		<b>Date Received:</b>	2/24/2017
3,3'-Dichlorobenzidine	< 357	ug/Kg		3/2/2017 23:16
3-Nitroaniline	< 713	ug/Kg		3/2/2017 23:16
4-Bromophenyl phenyl ether	< 357	ug/Kg		3/2/2017 23:16
4-Chloroaniline	< 357	ug/Kg		3/2/2017 23:16
4-Chlorophenyl phenyl ether	< 357	ug/Kg		3/2/2017 23:16
4-Nitroaniline	< 713	ug/Kg		3/2/2017 23:16
Acenaphthene	< 357	ug/Kg		3/2/2017 23:16
Acenaphthylene	< 357	ug/Kg		3/2/2017 23:16
Acetophenone	< 357	ug/Kg		3/2/2017 23:16
Anthracene	< 357	ug/Kg		3/2/2017 23:16
Atrazine	< 357	ug/Kg		3/2/2017 23:16
Benzaldehyde	< 357	ug/Kg		3/2/2017 23:16
Benzo (a) anthracene	< 357	ug/Kg		3/2/2017 23:16
Benzo (a) pyrene	< 357	ug/Kg		3/2/2017 23:16
Benzo (b) fluoranthene	< 357	ug/Kg		3/2/2017 23:16
Benzo (g,h,i) perylene	< 357	ug/Kg		3/2/2017 23:16
Benzo (k) fluoranthene	< 357	ug/Kg		3/2/2017 23:16
Bis (2-chloroethoxy) methane	< 357	ug/Kg		3/2/2017 23:16
Bis (2-chloroethyl) ether	< 357	ug/Kg		3/2/2017 23:16
Bis (2-ethylhexyl) phthalate	< 357	ug/Kg		3/2/2017 23:16
Butylbenzylphthalate	< 357	ug/Kg		3/2/2017 23:16
Caprolactam	< 357	ug/Kg		3/2/2017 23:16
Carbazole	< 357	ug/Kg		3/2/2017 23:16
Chrysene	< 357	ug/Kg		3/2/2017 23:16
Dibenz (a,h) anthracene	< 357	ug/Kg		3/2/2017 23:16
Dibenzofuran	< 357	ug/Kg		3/2/2017 23:16
Diethyl phthalate	< 357	ug/Kg		3/2/2017 23:16
Dimethyl phthalate	< 713	ug/Kg		3/2/2017 23:16
Di-n-butyl phthalate	< 357	ug/Kg		3/2/2017 23:16
Di-n-octylphthalate	< 357	ug/Kg		3/2/2017 23:16
Fluoranthene	< 357	ug/Kg		3/2/2017 23:16
Fluorene	< 357	ug/Kg		3/2/2017 23:16

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-3 (2-4)

**Lab Sample ID:** 170698-02

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Hexachlorobenzene	< 357	ug/Kg	3/2/2017 23:16
Hexachlorobutadiene	< 357	ug/Kg	3/2/2017 23:16
Hexachlorocyclopentadiene	< 357	ug/Kg	3/2/2017 23:16
Hexachloroethane	< 357	ug/Kg	3/2/2017 23:16
Indeno (1,2,3-cd) pyrene	< 357	ug/Kg	3/2/2017 23:16
Isophorone	< 357	ug/Kg	3/2/2017 23:16
Naphthalene	< 357	ug/Kg	3/2/2017 23:16
Nitrobenzene	< 357	ug/Kg	3/2/2017 23:16
N-Nitroso-di-n-propylamine	< 357	ug/Kg	3/2/2017 23:16
N-Nitrosodiphenylamine	< 357	ug/Kg	3/2/2017 23:16
Phenanthrene	< 357	ug/Kg	3/2/2017 23:16
Pyrene	< 357	ug/Kg	3/2/2017 23:16

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	52.8	33.7 - 113		3/2/2017 23:16
Nitrobenzene-d5	36.7	33.3 - 91.5		3/2/2017 23:16
Terphenyl-d14	49.1	66.1 - 113	*	3/2/2017 23:16

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/27/2017  
**Data File:** B17641.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 8.42	ug/Kg		3/2/2017 20:17
1,1,2,2-Tetrachloroethane	< 8.42	ug/Kg		3/2/2017 20:17
1,1,2-Trichloroethane	< 8.42	ug/Kg		3/2/2017 20:17
1,1-Dichloroethane	< 8.42	ug/Kg		3/2/2017 20:17
1,1-Dichloroethene	< 8.42	ug/Kg		3/2/2017 20:17
1,2,3-Trichlorobenzene	< 21.0	ug/Kg		3/2/2017 20:17
1,2,4-Trichlorobenzene	< 21.0	ug/Kg		3/2/2017 20:17
1,2,4-Trimethylbenzene	< 8.42	ug/Kg		3/2/2017 20:17
1,2-Dibromo-3-Chloropropane	< 42.1	ug/Kg		3/2/2017 20:17
1,2-Dibromoethane	< 8.42	ug/Kg		3/2/2017 20:17

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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<b>Sample Identifier:</b>	B-3 (2-4)		
<b>Lab Sample ID:</b>	170698-02	<b>Date Sampled:</b>	2/20/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/24/2017

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1,2-Dichlorobenzene	< 8.42	ug/Kg	3/2/2017 20:17
1,2-Dichloroethane	< 8.42	ug/Kg	3/2/2017 20:17
1,2-Dichloropropane	< 8.42	ug/Kg	3/2/2017 20:17
1,3,5-Trimethylbenzene	< 8.42	ug/Kg	3/2/2017 20:17
1,3-Dichlorobenzene	< 8.42	ug/Kg	3/2/2017 20:17
1,4-Dichlorobenzene	< 8.42	ug/Kg	3/2/2017 20:17
1,4-dioxane	< 84.2	ug/Kg	3/2/2017 20:17
2-Butanone	< 42.1	ug/Kg	3/2/2017 20:17
2-Hexanone	< 21.0	ug/Kg	3/2/2017 20:17
4-Methyl-2-pentanone	< 21.0	ug/Kg	3/2/2017 20:17
Acetone	< 42.1	ug/Kg	3/2/2017 20:17
Benzene	< 8.42	ug/Kg	3/2/2017 20:17
Bromochloromethane	< 21.0	ug/Kg	3/2/2017 20:17
Bromodichloromethane	< 8.42	ug/Kg	3/2/2017 20:17
Bromoform	< 21.0	ug/Kg	3/2/2017 20:17
Bromomethane	< 8.42	ug/Kg	3/2/2017 20:17
Carbon disulfide	< 8.42	ug/Kg	3/2/2017 20:17
Carbon Tetrachloride	< 8.42	ug/Kg	3/2/2017 20:17
Chlorobenzene	< 8.42	ug/Kg	3/2/2017 20:17
Chloroethane	< 8.42	ug/Kg	3/2/2017 20:17
Chloroform	< 8.42	ug/Kg	3/2/2017 20:17
Chloromethane	< 8.42	ug/Kg	3/2/2017 20:17
cis-1,2-Dichloroethene	< 8.42	ug/Kg	3/2/2017 20:17
cis-1,3-Dichloropropene	< 8.42	ug/Kg	3/2/2017 20:17
Cyclohexane	< 42.1	ug/Kg	3/2/2017 20:17
Dibromochloromethane	< 8.42	ug/Kg	3/2/2017 20:17
Dichlorodifluoromethane	< 8.42	ug/Kg	3/2/2017 20:17
Ethylbenzene	< 8.42	ug/Kg	3/2/2017 20:17
Freon 113	< 8.42	ug/Kg	3/2/2017 20:17
Isopropylbenzene	< 8.42	ug/Kg	3/2/2017 20:17
m,p-Xylene	< 8.42	ug/Kg	3/2/2017 20:17
Methyl acetate	< 8.42	ug/Kg	3/2/2017 20:17

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-3 (2-4)

**Lab Sample ID:** 170698-02

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Methyl tert-butyl Ether	< 8.42	ug/Kg	3/2/2017	20:17
Methylcyclohexane	< 8.42	ug/Kg	3/2/2017	20:17
Methylene chloride	< 21.0	ug/Kg	3/2/2017	20:17
Naphthalene	< 21.0	ug/Kg	3/2/2017	20:17
n-Butylbenzene	< 8.42	ug/Kg	3/2/2017	20:17
n-Propylbenzene	< 8.42	ug/Kg	3/2/2017	20:17
o-Xylene	< 8.42	ug/Kg	3/2/2017	20:17
p-Isopropyltoluene	< 8.42	ug/Kg	3/2/2017	20:17
sec-Butylbenzene	< 8.42	ug/Kg	3/2/2017	20:17
Styrene	< 21.0	ug/Kg	3/2/2017	20:17
tert-Butylbenzene	< 8.42	ug/Kg	3/2/2017	20:17
Tetrachloroethene	< 8.42	ug/Kg	3/2/2017	20:17
Toluene	< 8.42	ug/Kg	3/2/2017	20:17
trans-1,2-Dichloroethene	< 8.42	ug/Kg	3/2/2017	20:17
trans-1,3-Dichloropropene	< 8.42	ug/Kg	3/2/2017	20:17
Trichloroethene	< 8.42	ug/Kg	3/2/2017	20:17
Trichlorofluoromethane	< 8.42	ug/Kg	3/2/2017	20:17
Vinyl chloride	< 8.42	ug/Kg	3/2/2017	20:17

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>105</b>	82.1 - 123		3/2/2017 20:17
4-Bromofluorobenzene	<b>88.3</b>	84.6 - 112		3/2/2017 20:17
Pentafluorobenzene	<b>99.0</b>	91.4 - 111		3/2/2017 20:17
Toluene-D8	<b>96.3</b>	90.3 - 108		3/2/2017 20:17

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39670.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.589	mg/Kg		2/28/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-3 (2-4)

**Lab Sample ID:** 170698-02

**Date Sampled:** 2/20/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 2/28/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-7 (0-2)

**Lab Sample ID:** 170698-03

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.153	mg/Kg		2/27/2017 13:50

Method Reference(s): EPA 7471B  
Preparation Date: 2/26/2017  
Data File: Hg170227B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	14500	mg/Kg		2/28/2017 00:31
Antimony	< 5.05	mg/Kg		2/28/2017 18:38
Arsenic	32.4	mg/Kg		2/28/2017 00:31
Barium	369	mg/Kg		2/28/2017 00:31
Beryllium	2.07	mg/Kg		2/28/2017 00:31
Cadmium	< 0.421	mg/Kg		2/28/2017 00:31
Calcium	5330	mg/Kg		2/28/2017 00:31
Chromium	24.7	mg/Kg		2/28/2017 00:31
Cobalt	10.7	mg/Kg		2/28/2017 00:31
Copper	25.7	mg/Kg		2/28/2017 00:31
Iron	24000	mg/Kg		2/28/2017 18:38
Lead	16.6	mg/Kg		2/28/2017 18:38
Magnesium	1260	mg/Kg		2/28/2017 00:31
Manganese	104	mg/Kg		2/28/2017 00:31
Nickel	221	mg/Kg		2/28/2017 00:31
Potassium	1340	mg/Kg		2/28/2017 00:31
Selenium	< 1.68	mg/Kg		2/28/2017 00:31
Silver	2.40	mg/Kg		2/28/2017 00:31
Sodium	395	mg/Kg		2/28/2017 00:31
Thallium	< 2.11	mg/Kg		2/28/2017 00:31
Vanadium	679	mg/Kg		2/28/2017 00:31
Zinc	31.2	mg/Kg		2/28/2017 00:31

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-7 (0-2)

**Lab Sample ID:** 170698-03

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/25/2017  
**Data File:** 022717C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0481	mg/Kg		3/2/2017 01:25
PCB-1221	< 0.0481	mg/Kg		3/2/2017 01:25
PCB-1232	< 0.0481	mg/Kg		3/2/2017 01:25
PCB-1242	< 0.0481	mg/Kg		3/2/2017 01:25
PCB-1248	< 0.0481	mg/Kg		3/2/2017 01:25
PCB-1254	< 0.0481	mg/Kg		3/2/2017 01:25
PCB-1260	< 0.0481	mg/Kg		3/2/2017 01:25
PCB-1262	< 0.0481	mg/Kg		3/2/2017 01:25
PCB-1268	< 0.0481	mg/Kg		3/2/2017 01:25

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	59.4	10 - 142		3/2/2017 01:25
Tetrachloro-m-xylene	22.1	10 - 136		3/2/2017 01:25

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 4.81	ug/Kg		2/28/2017 16:32
4,4-DDE	< 4.81	ug/Kg		2/28/2017 16:32
4,4-DDT	< 4.81	ug/Kg		2/28/2017 16:32
Aldrin	< 4.81	ug/Kg		2/28/2017 16:32
alpha-BHC	< 4.81	ug/Kg		2/28/2017 16:32
beta-BHC	< 4.81	ug/Kg		2/28/2017 16:32
cis-Chlordane	< 4.81	ug/Kg		2/28/2017 16:32
delta-BHC	< 4.81	ug/Kg		2/28/2017 16:32
Dieldrin	< 4.81	ug/Kg		2/28/2017 16:32

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-7 (0-2)

**Lab Sample ID:** 170698-03

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Endosulfan I	< 4.81	ug/Kg	2/28/2017	16:32
Endosulfan II	< 4.81	ug/Kg	2/28/2017	16:32
Endosulfan Sulfate	< 4.81	ug/Kg	2/28/2017	16:32
Endrin	< 4.81	ug/Kg	2/28/2017	16:32
Endrin Aldehyde	< 4.81	ug/Kg	2/28/2017	16:32
Endrin Ketone	< 4.81	ug/Kg	2/28/2017	16:32
gamma-BHC (Lindane)	< 4.81	ug/Kg	2/28/2017	16:32
Heptachlor	< 4.81	ug/Kg	2/28/2017	16:32
Heptachlor Epoxide	< 4.81	ug/Kg	2/28/2017	16:32
Methoxychlor	< 4.81	ug/Kg	2/28/2017	16:32
Toxaphene	< 48.1	ug/Kg	2/28/2017	16:32
trans-Chlordane	< 4.81	ug/Kg	2/28/2017	16:32

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	43.0	10 - 152		2/28/2017 16:32
Tetrachloro-m-xylene (1)	21.6	10 - 91.1		2/28/2017 16:32

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 481	ug/Kg		3/2/2017 23:45
1,2,4,5-Tetrachlorobenzene	< 481	ug/Kg		3/2/2017 23:45
1,2,4-Trichlorobenzene	< 481	ug/Kg		3/2/2017 23:45
1,2-Dichlorobenzene	< 481	ug/Kg		3/2/2017 23:45
1,3-Dichlorobenzene	< 481	ug/Kg		3/2/2017 23:45
1,4-Dichlorobenzene	< 481	ug/Kg		3/2/2017 23:45
2,2-Oxybis (1-chloropropane)	< 481	ug/Kg		3/2/2017 23:45
2,4-Dinitrotoluene	< 481	ug/Kg		3/2/2017 23:45
2,6-Dinitrotoluene	< 481	ug/Kg		3/2/2017 23:45
2-Chloronaphthalene	< 481	ug/Kg		3/2/2017 23:45
2-Methylnaphthalene	< 481	ug/Kg		3/2/2017 23:45
2-Nitroaniline	< 963	ug/Kg		3/2/2017 23:45

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-7 (0-2)		
<b>Lab Sample ID:</b>	170698-03	<b>Date Sampled:</b>	2/22/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/24/2017
3,3'-Dichlorobenzidine	< 481	ug/Kg	3/2/2017 23:45
3-Nitroaniline	< 963	ug/Kg	3/2/2017 23:45
4-Bromophenyl phenyl ether	< 481	ug/Kg	3/2/2017 23:45
4-Chloroaniline	< 481	ug/Kg	3/2/2017 23:45
4-Chlorophenyl phenyl ether	< 481	ug/Kg	3/2/2017 23:45
4-Nitroaniline	< 963	ug/Kg	3/2/2017 23:45
Acenaphthene	< 481	ug/Kg	3/2/2017 23:45
Acenaphthylene	< 481	ug/Kg	3/2/2017 23:45
Acetophenone	< 481	ug/Kg	3/2/2017 23:45
Anthracene	< 481	ug/Kg	3/2/2017 23:45
Atrazine	< 481	ug/Kg	3/2/2017 23:45
Benzaldehyde	< 481	ug/Kg	3/2/2017 23:45
Benzo (a) anthracene	< 481	ug/Kg	3/2/2017 23:45
Benzo (a) pyrene	< 481	ug/Kg	3/2/2017 23:45
Benzo (b) fluoranthene	< 481	ug/Kg	3/2/2017 23:45
Benzo (g,h,i) perylene	< 481	ug/Kg	3/2/2017 23:45
Benzo (k) fluoranthene	< 481	ug/Kg	3/2/2017 23:45
Bis (2-chloroethoxy) methane	< 481	ug/Kg	3/2/2017 23:45
Bis (2-chloroethyl) ether	< 481	ug/Kg	3/2/2017 23:45
Bis (2-ethylhexyl) phthalate	< 481	ug/Kg	3/2/2017 23:45
Butylbenzylphthalate	< 481	ug/Kg	3/2/2017 23:45
Caprolactam	< 481	ug/Kg	3/2/2017 23:45
Carbazole	< 481	ug/Kg	3/2/2017 23:45
Chrysene	< 481	ug/Kg	3/2/2017 23:45
Dibenz (a,h) anthracene	< 481	ug/Kg	3/2/2017 23:45
Dibenzofuran	< 481	ug/Kg	3/2/2017 23:45
Diethyl phthalate	< 481	ug/Kg	3/2/2017 23:45
Dimethyl phthalate	< 963	ug/Kg	3/2/2017 23:45
Di-n-butyl phthalate	< 481	ug/Kg	3/2/2017 23:45
Di-n-octylphthalate	< 481	ug/Kg	3/2/2017 23:45
Fluoranthene	< 481	ug/Kg	3/2/2017 23:45
Fluorene	< 481	ug/Kg	3/2/2017 23:45

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-7 (0-2)

**Lab Sample ID:** 170698-03

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Hexachlorobenzene	< 481	ug/Kg	3/2/2017 23:45
Hexachlorobutadiene	< 481	ug/Kg	3/2/2017 23:45
Hexachlorocyclopentadiene	< 481	ug/Kg	3/2/2017 23:45
Hexachloroethane	< 481	ug/Kg	3/2/2017 23:45
Indeno (1,2,3-cd) pyrene	< 481	ug/Kg	3/2/2017 23:45
Isophorone	< 481	ug/Kg	3/2/2017 23:45
Naphthalene	< 481	ug/Kg	3/2/2017 23:45
Nitrobenzene	< 481	ug/Kg	3/2/2017 23:45
N-Nitroso-di-n-propylamine	< 481	ug/Kg	3/2/2017 23:45
N-Nitrosodiphenylamine	< 481	ug/Kg	3/2/2017 23:45
Phenanthrene	< 481	ug/Kg	3/2/2017 23:45
Pyrene	< 481	ug/Kg	3/2/2017 23:45

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	47.4	33.7 - 113		3/2/2017 23:45
Nitrobenzene-d5	44.8	33.3 - 91.5		3/2/2017 23:45
Terphenyl-d14	55.1	66.1 - 113	*	3/2/2017 23:45

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/27/2017  
**Data File:** B17642.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 11.2	ug/Kg		3/2/2017 20:41
1,1,2,2-Tetrachloroethane	< 11.2	ug/Kg		3/2/2017 20:41
1,1,2-Trichloroethane	< 11.2	ug/Kg		3/2/2017 20:41
1,1-Dichloroethane	< 11.2	ug/Kg		3/2/2017 20:41
1,1-Dichloroethene	< 11.2	ug/Kg		3/2/2017 20:41
1,2,3-Trichlorobenzene	< 27.9	ug/Kg		3/2/2017 20:41
1,2,4-Trichlorobenzene	< 27.9	ug/Kg		3/2/2017 20:41
1,2,4-Trimethylbenzene	< 11.2	ug/Kg		3/2/2017 20:41
1,2-Dibromo-3-Chloropropane	< 55.8	ug/Kg		3/2/2017 20:41
1,2-Dibromoethane	< 11.2	ug/Kg		3/2/2017 20:41

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-7 (0-2)		
<b>Lab Sample ID:</b>	170698-03	<b>Date Sampled:</b>	2/22/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/24/2017
1,2-Dichlorobenzene	< 11.2	ug/Kg	3/2/2017 20:41
1,2-Dichloroethane	< 11.2	ug/Kg	3/2/2017 20:41
1,2-Dichloropropane	< 11.2	ug/Kg	3/2/2017 20:41
1,3,5-Trimethylbenzene	< 11.2	ug/Kg	3/2/2017 20:41
1,3-Dichlorobenzene	< 11.2	ug/Kg	3/2/2017 20:41
1,4-Dichlorobenzene	< 11.2	ug/Kg	3/2/2017 20:41
1,4-dioxane	< 11.2	ug/Kg	3/2/2017 20:41
2-Butanone	< 55.8	ug/Kg	3/2/2017 20:41
2-Hexanone	< 27.9	ug/Kg	3/2/2017 20:41
4-Methyl-2-pentanone	< 27.9	ug/Kg	3/2/2017 20:41
Acetone	< 55.8	ug/Kg	3/2/2017 20:41
Benzene	< 11.2	ug/Kg	3/2/2017 20:41
Bromochloromethane	< 27.9	ug/Kg	3/2/2017 20:41
Bromodichloromethane	< 11.2	ug/Kg	3/2/2017 20:41
Bromoform	< 27.9	ug/Kg	3/2/2017 20:41
Bromomethane	< 11.2	ug/Kg	3/2/2017 20:41
Carbon disulfide	< 11.2	ug/Kg	3/2/2017 20:41
Carbon Tetrachloride	< 11.2	ug/Kg	3/2/2017 20:41
Chlorobenzene	< 11.2	ug/Kg	3/2/2017 20:41
Chloroethane	< 11.2	ug/Kg	3/2/2017 20:41
Chloroform	< 11.2	ug/Kg	3/2/2017 20:41
Chloromethane	< 11.2	ug/Kg	3/2/2017 20:41
cis-1,2-Dichloroethene	< 11.2	ug/Kg	3/2/2017 20:41
cis-1,3-Dichloropropene	< 11.2	ug/Kg	3/2/2017 20:41
Cyclohexane	< 55.8	ug/Kg	3/2/2017 20:41
Dibromochloromethane	< 11.2	ug/Kg	3/2/2017 20:41
Dichlorodifluoromethane	< 11.2	ug/Kg	3/2/2017 20:41
Ethylbenzene	< 11.2	ug/Kg	3/2/2017 20:41
Freon 113	< 11.2	ug/Kg	3/2/2017 20:41
Isopropylbenzene	< 11.2	ug/Kg	3/2/2017 20:41
m,p-Xylene	< 11.2	ug/Kg	3/2/2017 20:41
Methyl acetate	< 11.2	ug/Kg	3/2/2017 20:41

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-7 (0-2)

**Lab Sample ID:** 170698-03

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Methyl tert-butyl Ether	< 11.2	ug/Kg	3/2/2017	20:41
Methylcyclohexane	< 11.2	ug/Kg	3/2/2017	20:41
Methylene chloride	< 27.9	ug/Kg	3/2/2017	20:41
Naphthalene	< 27.9	ug/Kg	3/2/2017	20:41
n-Butylbenzene	< 11.2	ug/Kg	3/2/2017	20:41
n-Propylbenzene	< 11.2	ug/Kg	3/2/2017	20:41
o-Xylene	< 11.2	ug/Kg	3/2/2017	20:41
p-Isopropyltoluene	< 11.2	ug/Kg	3/2/2017	20:41
sec-Butylbenzene	< 11.2	ug/Kg	3/2/2017	20:41
Styrene	< 27.9	ug/Kg	3/2/2017	20:41
tert-Butylbenzene	< 11.2	ug/Kg	3/2/2017	20:41
Tetrachloroethene	< 11.2	ug/Kg	3/2/2017	20:41
Toluene	< 11.2	ug/Kg	3/2/2017	20:41
trans-1,2-Dichloroethene	< 11.2	ug/Kg	3/2/2017	20:41
trans-1,3-Dichloropropene	< 11.2	ug/Kg	3/2/2017	20:41
Trichloroethene	< 11.2	ug/Kg	3/2/2017	20:41
Trichlorofluoromethane	< 11.2	ug/Kg	3/2/2017	20:41
Vinyl chloride	< 11.2	ug/Kg	3/2/2017	20:41

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>111</b>	82.1 - 123		3/2/2017 20:41
4-Bromofluorobenzene	<b>80.9</b>	84.6 - 112	*	3/2/2017 20:41
Pentafluorobenzene	<b>108</b>	91.4 - 111		3/2/2017 20:41
Toluene-D8	<b>101</b>	90.3 - 108		3/2/2017 20:41

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39671.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.529	mg/Kg		2/28/2017

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**Client:** **Bergmann Associates**

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-7 (0-2)

**Lab Sample ID:** 170698-03

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 2/28/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-7 (1-4)

**Lab Sample ID:** 170698-04

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.197	mg/Kg		2/27/2017 13:54

Method Reference(s): EPA 7471B  
Preparation Date: 2/26/2017  
Data File: Hg170227B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	17200	mg/Kg		2/28/2017 00:35
Antimony	< 6.02	mg/Kg		2/28/2017 18:50
Arsenic	61.4	mg/Kg		2/28/2017 00:35
Barium	546	mg/Kg		2/28/2017 00:35
Beryllium	1.99	mg/Kg		2/28/2017 00:35
Cadmium	< 0.502	mg/Kg		2/28/2017 00:35
Calcium	7150	mg/Kg		2/28/2017 00:35
Chromium	34.9	mg/Kg		2/28/2017 00:35
Cobalt	8.93	mg/Kg		2/28/2017 00:35
Copper	23.9	mg/Kg		2/28/2017 00:35
Iron	15400	mg/Kg		2/28/2017 18:50
Lead	15.9	mg/Kg		2/28/2017 18:50
Magnesium	1700	mg/Kg		2/28/2017 00:35
Manganese	110	mg/Kg		2/28/2017 00:35
Nickel	67.8	mg/Kg		2/28/2017 00:35
Potassium	1670	mg/Kg		2/28/2017 00:35
Selenium	< 2.01	mg/Kg		2/28/2017 00:35
Silver	1.38	mg/Kg		2/28/2017 00:35
Sodium	674	mg/Kg		2/28/2017 00:35
Thallium	< 2.51	mg/Kg		2/28/2017 00:35
Vanadium	372	mg/Kg		2/28/2017 00:35
Zinc	31.3	mg/Kg		2/28/2017 00:35

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-7 (1-4)

**Lab Sample ID:** 170698-04

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/25/2017  
**Data File:** 022717C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0588	mg/Kg		3/2/2017 01:47
PCB-1221	< 0.0588	mg/Kg		3/2/2017 01:47
PCB-1232	< 0.0588	mg/Kg		3/2/2017 01:47
PCB-1242	< 0.0588	mg/Kg		3/2/2017 01:47
PCB-1248	< 0.0588	mg/Kg		3/2/2017 01:47
PCB-1254	< 0.0588	mg/Kg		3/2/2017 01:47
PCB-1260	< 0.0588	mg/Kg		3/2/2017 01:47
PCB-1262	< 0.0588	mg/Kg		3/2/2017 01:47
PCB-1268	< 0.0588	mg/Kg		3/2/2017 01:47

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	53.9	10 - 142		3/2/2017 01:47
Tetrachloro-m-xylene	17.1	10 - 136		3/2/2017 01:47

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 5.88	ug/Kg		2/28/2017 16:47
4,4-DDE	< 5.88	ug/Kg		2/28/2017 16:47
4,4-DDT	< 5.88	ug/Kg		2/28/2017 16:47
Aldrin	< 5.88	ug/Kg		2/28/2017 16:47
alpha-BHC	< 5.88	ug/Kg		2/28/2017 16:47
beta-BHC	< 5.88	ug/Kg		2/28/2017 16:47
cis-Chlordane	< 5.88	ug/Kg		2/28/2017 16:47
delta-BHC	< 5.88	ug/Kg		2/28/2017 16:47
Dieldrin	< 5.88	ug/Kg		2/28/2017 16:47

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-7 (1-4)

**Lab Sample ID:** 170698-04

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Endosulfan I	< 5.88	ug/Kg	2/28/2017	16:47
Endosulfan II	< 5.88	ug/Kg	2/28/2017	16:47
Endosulfan Sulfate	< 5.88	ug/Kg	2/28/2017	16:47
Endrin	< 5.88	ug/Kg	2/28/2017	16:47
Endrin Aldehyde	< 5.88	ug/Kg	2/28/2017	16:47
Endrin Ketone	< 5.88	ug/Kg	2/28/2017	16:47
gamma-BHC (Lindane)	< 5.88	ug/Kg	2/28/2017	16:47
Heptachlor	< 5.88	ug/Kg	2/28/2017	16:47
Heptachlor Epoxide	< 5.88	ug/Kg	2/28/2017	16:47
Methoxychlor	< 5.88	ug/Kg	2/28/2017	16:47
Toxaphene	< 58.8	ug/Kg	2/28/2017	16:47
trans-Chlordane	< 5.88	ug/Kg	2/28/2017	16:47

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	40.5	10 - 152		2/28/2017 16:47
Tetrachloro-m-xylene (1)	19.7	10 - 91.1		2/28/2017 16:47

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 603	ug/Kg		3/3/2017 00:15
1,2,4,5-Tetrachlorobenzene	< 603	ug/Kg		3/3/2017 00:15
1,2,4-Trichlorobenzene	< 603	ug/Kg		3/3/2017 00:15
1,2-Dichlorobenzene	< 603	ug/Kg		3/3/2017 00:15
1,3-Dichlorobenzene	< 603	ug/Kg		3/3/2017 00:15
1,4-Dichlorobenzene	< 603	ug/Kg		3/3/2017 00:15
2,2-Oxybis (1-chloropropane)	< 603	ug/Kg		3/3/2017 00:15
2,4-Dinitrotoluene	< 603	ug/Kg		3/3/2017 00:15
2,6-Dinitrotoluene	< 603	ug/Kg		3/3/2017 00:15
2-Chloronaphthalene	< 603	ug/Kg		3/3/2017 00:15
2-Methylnaphthalene	< 603	ug/Kg		3/3/2017 00:15
2-Nitroaniline	< 1210	ug/Kg		3/3/2017 00:15

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-7 (1-4)		
<b>Lab Sample ID:</b>	170698-04	<b>Date Sampled:</b>	2/22/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/24/2017
3,3'-Dichlorobenzidine	< 603	ug/Kg	3/3/2017 00:15
3-Nitroaniline	< 1210	ug/Kg	3/3/2017 00:15
4-Bromophenyl phenyl ether	< 603	ug/Kg	3/3/2017 00:15
4-Chloroaniline	< 603	ug/Kg	3/3/2017 00:15
4-Chlorophenyl phenyl ether	< 603	ug/Kg	3/3/2017 00:15
4-Nitroaniline	< 1210	ug/Kg	3/3/2017 00:15
Acenaphthene	< 603	ug/Kg	3/3/2017 00:15
Acenaphthylene	< 603	ug/Kg	3/3/2017 00:15
Acetophenone	< 603	ug/Kg	3/3/2017 00:15
Anthracene	< 603	ug/Kg	3/3/2017 00:15
Atrazine	< 603	ug/Kg	3/3/2017 00:15
Benzaldehyde	< 603	ug/Kg	3/3/2017 00:15
Benzo (a) anthracene	< 603	ug/Kg	3/3/2017 00:15
Benzo (a) pyrene	< 603	ug/Kg	3/3/2017 00:15
Benzo (b) fluoranthene	< 603	ug/Kg	3/3/2017 00:15
Benzo (g,h,i) perylene	< 603	ug/Kg	3/3/2017 00:15
Benzo (k) fluoranthene	< 603	ug/Kg	3/3/2017 00:15
Bis (2-chloroethoxy) methane	< 603	ug/Kg	3/3/2017 00:15
Bis (2-chloroethyl) ether	< 603	ug/Kg	3/3/2017 00:15
Bis (2-ethylhexyl) phthalate	< 603	ug/Kg	3/3/2017 00:15
Butylbenzylphthalate	< 603	ug/Kg	3/3/2017 00:15
Caprolactam	< 603	ug/Kg	3/3/2017 00:15
Carbazole	< 603	ug/Kg	3/3/2017 00:15
Chrysene	< 603	ug/Kg	3/3/2017 00:15
Dibenz (a,h) anthracene	< 603	ug/Kg	3/3/2017 00:15
Dibenzofuran	< 603	ug/Kg	3/3/2017 00:15
Diethyl phthalate	< 603	ug/Kg	3/3/2017 00:15
Dimethyl phthalate	< 1210	ug/Kg	3/3/2017 00:15
Di-n-butyl phthalate	< 603	ug/Kg	3/3/2017 00:15
Di-n-octylphthalate	< 603	ug/Kg	3/3/2017 00:15
Fluoranthene	< 603	ug/Kg	3/3/2017 00:15
Fluorene	< 603	ug/Kg	3/3/2017 00:15

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-7 (1-4)

**Lab Sample ID:** 170698-04

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Hexachlorobenzene	< 603	ug/Kg	3/3/2017 00:15
Hexachlorobutadiene	< 603	ug/Kg	3/3/2017 00:15
Hexachlorocyclopentadiene	< 603	ug/Kg	3/3/2017 00:15
Hexachloroethane	< 603	ug/Kg	3/3/2017 00:15
Indeno (1,2,3-cd) pyrene	< 603	ug/Kg	3/3/2017 00:15
Isophorone	< 603	ug/Kg	3/3/2017 00:15
Naphthalene	< 603	ug/Kg	3/3/2017 00:15
Nitrobenzene	< 603	ug/Kg	3/3/2017 00:15
N-Nitroso-di-n-propylamine	< 603	ug/Kg	3/3/2017 00:15
N-Nitrosodiphenylamine	< 603	ug/Kg	3/3/2017 00:15
Phenanthrene	< 603	ug/Kg	3/3/2017 00:15
Pyrene	< 603	ug/Kg	3/3/2017 00:15

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	51.0	33.7 - 113		3/3/2017 00:15
Nitrobenzene-d5	47.4	33.3 - 91.5		3/3/2017 00:15
Terphenyl-d14	69.9	66.1 - 113		3/3/2017 00:15

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/27/2017  
**Data File:** B17643.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 13.5	ug/Kg		3/2/2017 21:05
1,1,2,2-Tetrachloroethane	< 13.5	ug/Kg		3/2/2017 21:05
1,1,2-Trichloroethane	< 13.5	ug/Kg		3/2/2017 21:05
1,1-Dichloroethane	< 13.5	ug/Kg		3/2/2017 21:05
1,1-Dichloroethene	< 13.5	ug/Kg		3/2/2017 21:05
1,2,3-Trichlorobenzene	< 33.7	ug/Kg		3/2/2017 21:05
1,2,4-Trichlorobenzene	< 33.7	ug/Kg		3/2/2017 21:05
1,2,4-Trimethylbenzene	< 13.5	ug/Kg		3/2/2017 21:05
1,2-Dibromo-3-Chloropropane	< 67.3	ug/Kg		3/2/2017 21:05
1,2-Dibromoethane	< 13.5	ug/Kg		3/2/2017 21:05

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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<b>Sample Identifier:</b>	B-7 (1-4)		
<b>Lab Sample ID:</b>	170698-04	<b>Date Sampled:</b>	2/22/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/24/2017

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1,2-Dichlorobenzene	< 13.5	ug/Kg	3/2/2017 21:05
1,2-Dichloroethane	< 13.5	ug/Kg	3/2/2017 21:05
1,2-Dichloropropane	< 13.5	ug/Kg	3/2/2017 21:05
1,3,5-Trimethylbenzene	< 13.5	ug/Kg	3/2/2017 21:05
1,3-Dichlorobenzene	< 13.5	ug/Kg	3/2/2017 21:05
1,4-Dichlorobenzene	< 13.5	ug/Kg	3/2/2017 21:05
1,4-dioxane	< 135	ug/Kg	3/2/2017 21:05
2-Butanone	< 67.3	ug/Kg	3/2/2017 21:05
2-Hexanone	< 33.7	ug/Kg	3/2/2017 21:05
4-Methyl-2-pentanone	< 33.7	ug/Kg	3/2/2017 21:05
Acetone	< 67.3	ug/Kg	3/2/2017 21:05
Benzene	< 13.5	ug/Kg	3/2/2017 21:05
Bromochloromethane	< 33.7	ug/Kg	3/2/2017 21:05
Bromodichloromethane	< 13.5	ug/Kg	3/2/2017 21:05
Bromoform	< 33.7	ug/Kg	3/2/2017 21:05
Bromomethane	< 13.5	ug/Kg	3/2/2017 21:05
Carbon disulfide	< 13.5	ug/Kg	3/2/2017 21:05
Carbon Tetrachloride	< 13.5	ug/Kg	3/2/2017 21:05
Chlorobenzene	< 13.5	ug/Kg	3/2/2017 21:05
Chloroethane	< 13.5	ug/Kg	3/2/2017 21:05
Chloroform	< 13.5	ug/Kg	3/2/2017 21:05
Chloromethane	< 13.5	ug/Kg	3/2/2017 21:05
cis-1,2-Dichloroethene	< 13.5	ug/Kg	3/2/2017 21:05
cis-1,3-Dichloropropene	< 13.5	ug/Kg	3/2/2017 21:05
Cyclohexane	< 67.3	ug/Kg	3/2/2017 21:05
Dibromochloromethane	< 13.5	ug/Kg	3/2/2017 21:05
Dichlorodifluoromethane	< 13.5	ug/Kg	3/2/2017 21:05
Ethylbenzene	< 13.5	ug/Kg	3/2/2017 21:05
Freon 113	< 13.5	ug/Kg	3/2/2017 21:05
Isopropylbenzene	< 13.5	ug/Kg	3/2/2017 21:05
m,p-Xylene	< 13.5	ug/Kg	3/2/2017 21:05
Methyl acetate	< 13.5	ug/Kg	3/2/2017 21:05

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-7 (1-4)

**Lab Sample ID:** 170698-04

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Methyl tert-butyl Ether	< 13.5	ug/Kg	3/2/2017	21:05
Methylcyclohexane	< 13.5	ug/Kg	3/2/2017	21:05
Methylene chloride	< 33.7	ug/Kg	3/2/2017	21:05
Naphthalene	< 33.7	ug/Kg	3/2/2017	21:05
n-Butylbenzene	< 13.5	ug/Kg	3/2/2017	21:05
n-Propylbenzene	< 13.5	ug/Kg	3/2/2017	21:05
o-Xylene	< 13.5	ug/Kg	3/2/2017	21:05
p-Isopropyltoluene	< 13.5	ug/Kg	3/2/2017	21:05
sec-Butylbenzene	< 13.5	ug/Kg	3/2/2017	21:05
Styrene	< 33.7	ug/Kg	3/2/2017	21:05
tert-Butylbenzene	< 13.5	ug/Kg	3/2/2017	21:05
Tetrachloroethene	< 13.5	ug/Kg	3/2/2017	21:05
Toluene	< 13.5	ug/Kg	3/2/2017	21:05
trans-1,2-Dichloroethene	< 13.5	ug/Kg	3/2/2017	21:05
trans-1,3-Dichloropropene	< 13.5	ug/Kg	3/2/2017	21:05
Trichloroethene	< 13.5	ug/Kg	3/2/2017	21:05
Trichlorofluoromethane	< 13.5	ug/Kg	3/2/2017	21:05
Vinyl chloride	< 13.5	ug/Kg	3/2/2017	21:05

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>143</b>	82.1 - 123	*	3/2/2017 21:05
4-Bromofluorobenzene	<b>71.1</b>	84.6 - 112	*	3/2/2017 21:05
Pentafluorobenzene	<b>115</b>	91.4 - 111	*	3/2/2017 21:05
Toluene-D8	<b>94.1</b>	90.3 - 108		3/2/2017 21:05

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39672.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.689	mg/Kg		2/28/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-7 (1-4)

**Lab Sample ID:** 170698-04

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 2/28/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-6 (0-2)

**Lab Sample ID:** 170698-05

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.155	mg/Kg		2/27/2017 13:57

Method Reference(s): EPA 7471B  
Preparation Date: 2/26/2017  
Data File: Hg170227B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	22200	mg/Kg		2/28/2017 00:39
Antimony	< 6.76	mg/Kg		2/28/2017 18:55
Arsenic	71.5	mg/Kg		2/28/2017 00:39
Barium	576	mg/Kg		2/28/2017 00:39
Beryllium	2.31	mg/Kg		2/28/2017 00:39
Cadmium	< 0.563	mg/Kg		2/28/2017 00:39
Calcium	8080	mg/Kg		2/28/2017 00:39
Chromium	30.1	mg/Kg		2/28/2017 00:39
Cobalt	10.8	mg/Kg		2/28/2017 00:39
Copper	24.8	mg/Kg		2/28/2017 00:39
Iron	29700	mg/Kg		2/28/2017 18:55
Lead	16.9	mg/Kg		2/28/2017 18:55
Magnesium	2250	mg/Kg		2/28/2017 00:39
Manganese	129	mg/Kg		2/28/2017 00:39
Nickel	48.0	mg/Kg		2/28/2017 00:39
Potassium	2180	mg/Kg		2/28/2017 00:39
Selenium	< 2.25	mg/Kg		2/28/2017 00:39
Silver	3.01	mg/Kg		2/28/2017 00:39
Sodium	578	mg/Kg		2/28/2017 00:39
Thallium	< 2.81	mg/Kg		2/28/2017 00:39
Vanadium	168	mg/Kg		2/28/2017 00:39
Zinc	36.0	mg/Kg		2/28/2017 00:39

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-6 (0-2)

**Lab Sample ID:** 170698-05

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/25/2017  
**Data File:** 022717C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0667	mg/Kg		3/2/2017 02:09
PCB-1221	< 0.0667	mg/Kg		3/2/2017 02:09
PCB-1232	< 0.0667	mg/Kg		3/2/2017 02:09
PCB-1242	< 0.0667	mg/Kg		3/2/2017 02:09
PCB-1248	< 0.0667	mg/Kg		3/2/2017 02:09
PCB-1254	< 0.0667	mg/Kg		3/2/2017 02:09
PCB-1260	< 0.0667	mg/Kg		3/2/2017 02:09
PCB-1262	< 0.0667	mg/Kg		3/2/2017 02:09
PCB-1268	< 0.0667	mg/Kg		3/2/2017 02:09

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	52.4	10 - 142		3/2/2017 02:09
Tetrachloro-m-xylene	23.1	10 - 136		3/2/2017 02:09

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 6.67	ug/Kg		2/28/2017 17:01
4,4-DDE	< 6.67	ug/Kg		2/28/2017 17:01
4,4-DDT	< 6.67	ug/Kg		2/28/2017 17:01
Aldrin	< 6.67	ug/Kg		2/28/2017 17:01
alpha-BHC	< 6.67	ug/Kg		2/28/2017 17:01
beta-BHC	< 6.67	ug/Kg		2/28/2017 17:01
cis-Chlordane	< 6.67	ug/Kg		2/28/2017 17:01
delta-BHC	< 6.67	ug/Kg		2/28/2017 17:01
Dieldrin	< 6.67	ug/Kg		2/28/2017 17:01

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-6 (0-2)

**Lab Sample ID:** 170698-05

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Endosulfan I	< 6.67	ug/Kg	2/28/2017	17:01
Endosulfan II	< 6.67	ug/Kg	2/28/2017	17:01
Endosulfan Sulfate	< 6.67	ug/Kg	2/28/2017	17:01
Endrin	< 6.67	ug/Kg	2/28/2017	17:01
Endrin Aldehyde	< 6.67	ug/Kg	2/28/2017	17:01
Endrin Ketone	< 6.67	ug/Kg	2/28/2017	17:01
gamma-BHC (Lindane)	< 6.67	ug/Kg	2/28/2017	17:01
Heptachlor	< 6.67	ug/Kg	2/28/2017	17:01
Heptachlor Epoxide	< 6.67	ug/Kg	2/28/2017	17:01
Methoxychlor	< 6.67	ug/Kg	2/28/2017	17:01
Toxaphene	< 66.7	ug/Kg	2/28/2017	17:01
trans-Chlordane	< 6.67	ug/Kg	2/28/2017	17:01

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	38.5	10 - 152		2/28/2017 17:01
Tetrachloro-m-xylene (1)	27.9	10 - 91.1		2/28/2017 17:01

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 696	ug/Kg		3/3/2017 00:43
1,2,4,5-Tetrachlorobenzene	< 696	ug/Kg		3/3/2017 00:43
1,2,4-Trichlorobenzene	< 696	ug/Kg		3/3/2017 00:43
1,2-Dichlorobenzene	< 696	ug/Kg		3/3/2017 00:43
1,3-Dichlorobenzene	< 696	ug/Kg		3/3/2017 00:43
1,4-Dichlorobenzene	< 696	ug/Kg		3/3/2017 00:43
2,2-Oxybis (1-chloropropane)	< 696	ug/Kg		3/3/2017 00:43
2,4-Dinitrotoluene	< 696	ug/Kg		3/3/2017 00:43
2,6-Dinitrotoluene	< 696	ug/Kg		3/3/2017 00:43
2-Chloronaphthalene	< 696	ug/Kg		3/3/2017 00:43
2-Methylnaphthalene	< 696	ug/Kg		3/3/2017 00:43
2-Nitroaniline	< 1390	ug/Kg		3/3/2017 00:43

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-6 (0-2)		
<b>Lab Sample ID:</b>	170698-05	<b>Date Sampled:</b>	2/22/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/24/2017
3,3'-Dichlorobenzidine	< 696	ug/Kg	3/3/2017 00:43
3-Nitroaniline	< 1390	ug/Kg	3/3/2017 00:43
4-Bromophenyl phenyl ether	< 696	ug/Kg	3/3/2017 00:43
4-Chloroaniline	< 696	ug/Kg	3/3/2017 00:43
4-Chlorophenyl phenyl ether	< 696	ug/Kg	3/3/2017 00:43
4-Nitroaniline	< 1390	ug/Kg	3/3/2017 00:43
Acenaphthene	< 696	ug/Kg	3/3/2017 00:43
Acenaphthylene	< 696	ug/Kg	3/3/2017 00:43
Acetophenone	< 696	ug/Kg	3/3/2017 00:43
Anthracene	< 696	ug/Kg	3/3/2017 00:43
Atrazine	< 696	ug/Kg	3/3/2017 00:43
Benzaldehyde	< 696	ug/Kg	3/3/2017 00:43
Benzo (a) anthracene	< 696	ug/Kg	3/3/2017 00:43
Benzo (a) pyrene	< 696	ug/Kg	3/3/2017 00:43
Benzo (b) fluoranthene	< 696	ug/Kg	3/3/2017 00:43
Benzo (g,h,i) perylene	< 696	ug/Kg	3/3/2017 00:43
Benzo (k) fluoranthene	< 696	ug/Kg	3/3/2017 00:43
Bis (2-chloroethoxy) methane	< 696	ug/Kg	3/3/2017 00:43
Bis (2-chloroethyl) ether	< 696	ug/Kg	3/3/2017 00:43
Bis (2-ethylhexyl) phthalate	< 696	ug/Kg	3/3/2017 00:43
Butylbenzylphthalate	< 696	ug/Kg	3/3/2017 00:43
Caprolactam	< 696	ug/Kg	3/3/2017 00:43
Carbazole	< 696	ug/Kg	3/3/2017 00:43
Chrysene	< 696	ug/Kg	3/3/2017 00:43
Dibenz (a,h) anthracene	< 696	ug/Kg	3/3/2017 00:43
Dibenzofuran	< 696	ug/Kg	3/3/2017 00:43
Diethyl phthalate	< 696	ug/Kg	3/3/2017 00:43
Dimethyl phthalate	< 1390	ug/Kg	3/3/2017 00:43
Di-n-butyl phthalate	< 696	ug/Kg	3/3/2017 00:43
Di-n-octylphthalate	< 696	ug/Kg	3/3/2017 00:43
Fluoranthene	< 696	ug/Kg	3/3/2017 00:43
Fluorene	< 696	ug/Kg	3/3/2017 00:43

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-6 (0-2)

**Lab Sample ID:** 170698-05

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Hexachlorobenzene	< 696	ug/Kg	3/3/2017 00:43
Hexachlorobutadiene	< 696	ug/Kg	3/3/2017 00:43
Hexachlorocyclopentadiene	< 696	ug/Kg	3/3/2017 00:43
Hexachloroethane	< 696	ug/Kg	3/3/2017 00:43
Indeno (1,2,3-cd) pyrene	< 696	ug/Kg	3/3/2017 00:43
Isophorone	< 696	ug/Kg	3/3/2017 00:43
Naphthalene	< 696	ug/Kg	3/3/2017 00:43
Nitrobenzene	< 696	ug/Kg	3/3/2017 00:43
N-Nitroso-di-n-propylamine	< 696	ug/Kg	3/3/2017 00:43
N-Nitrosodiphenylamine	< 696	ug/Kg	3/3/2017 00:43
Phenanthrene	< 696	ug/Kg	3/3/2017 00:43
Pyrene	< 696	ug/Kg	3/3/2017 00:43

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	59.6	33.7 - 113		3/3/2017 00:43
Nitrobenzene-d5	56.9	33.3 - 91.5		3/3/2017 00:43
Terphenyl-d14	76.6	66.1 - 113		3/3/2017 00:43

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/27/2017  
**Data File:** B17644.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 17.8	ug/Kg		3/2/2017 21:28
1,1,2,2-Tetrachloroethane	< 17.8	ug/Kg		3/2/2017 21:28
1,1,2-Trichloroethane	< 17.8	ug/Kg		3/2/2017 21:28
1,1-Dichloroethane	< 17.8	ug/Kg		3/2/2017 21:28
1,1-Dichloroethene	< 17.8	ug/Kg		3/2/2017 21:28
1,2,3-Trichlorobenzene	< 44.6	ug/Kg		3/2/2017 21:28
1,2,4-Trichlorobenzene	< 44.6	ug/Kg		3/2/2017 21:28
1,2,4-Trimethylbenzene	< 17.8	ug/Kg		3/2/2017 21:28
1,2-Dibromo-3-Chloropropane	< 89.2	ug/Kg		3/2/2017 21:28
1,2-Dibromoethane	< 17.8	ug/Kg		3/2/2017 21:28

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**Client:** Bergmann Associates
**Project Reference:** Port Of Albany

**Sample Identifier:** B-6 (0-2)

**Lab Sample ID:** 170698-05

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

1,2-Dichlorobenzene	< 17.8	ug/Kg	3/2/2017 21:28
1,2-Dichloroethane	< 17.8	ug/Kg	3/2/2017 21:28
1,2-Dichloropropane	< 17.8	ug/Kg	3/2/2017 21:28
1,3,5-Trimethylbenzene	< 17.8	ug/Kg	3/2/2017 21:28
1,3-Dichlorobenzene	< 17.8	ug/Kg	3/2/2017 21:28
1,4-Dichlorobenzene	< 17.8	ug/Kg	3/2/2017 21:28
1,4-dioxane	< 17.8	ug/Kg	3/2/2017 21:28
2-Butanone	< 89.2	ug/Kg	3/2/2017 21:28
2-Hexanone	< 44.6	ug/Kg	3/2/2017 21:28
4-Methyl-2-pentanone	< 44.6	ug/Kg	3/2/2017 21:28
Acetone	< 89.2	ug/Kg	3/2/2017 21:28
Benzene	< 17.8	ug/Kg	3/2/2017 21:28
Bromochloromethane	< 44.6	ug/Kg	3/2/2017 21:28
Bromodichloromethane	< 17.8	ug/Kg	3/2/2017 21:28
Bromoform	< 44.6	ug/Kg	3/2/2017 21:28
Bromomethane	< 17.8	ug/Kg	3/2/2017 21:28
Carbon disulfide	< 17.8	ug/Kg	3/2/2017 21:28
Carbon Tetrachloride	< 17.8	ug/Kg	3/2/2017 21:28
Chlorobenzene	< 17.8	ug/Kg	3/2/2017 21:28
Chloroethane	< 17.8	ug/Kg	3/2/2017 21:28
Chloroform	< 17.8	ug/Kg	3/2/2017 21:28
Chloromethane	< 17.8	ug/Kg	3/2/2017 21:28
cis-1,2-Dichloroethene	< 17.8	ug/Kg	3/2/2017 21:28
cis-1,3-Dichloropropene	< 17.8	ug/Kg	3/2/2017 21:28
Cyclohexane	< 89.2	ug/Kg	3/2/2017 21:28
Dibromochloromethane	< 17.8	ug/Kg	3/2/2017 21:28
Dichlorodifluoromethane	< 17.8	ug/Kg	3/2/2017 21:28
Ethylbenzene	< 17.8	ug/Kg	3/2/2017 21:28
Freon 113	< 17.8	ug/Kg	3/2/2017 21:28
Isopropylbenzene	< 17.8	ug/Kg	3/2/2017 21:28
m,p-Xylene	< 17.8	ug/Kg	3/2/2017 21:28
Methyl acetate	< 17.8	ug/Kg	3/2/2017 21:28

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-6 (0-2)

**Lab Sample ID:** 170698-05

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Methyl tert-butyl Ether	< 17.8	ug/Kg	3/2/2017	21:28
Methylcyclohexane	< 17.8	ug/Kg	3/2/2017	21:28
Methylene chloride	< 44.6	ug/Kg	3/2/2017	21:28
Naphthalene	< 44.6	ug/Kg	3/2/2017	21:28
n-Butylbenzene	< 17.8	ug/Kg	3/2/2017	21:28
n-Propylbenzene	< 17.8	ug/Kg	3/2/2017	21:28
o-Xylene	< 17.8	ug/Kg	3/2/2017	21:28
p-Isopropyltoluene	< 17.8	ug/Kg	3/2/2017	21:28
sec-Butylbenzene	< 17.8	ug/Kg	3/2/2017	21:28
Styrene	< 44.6	ug/Kg	3/2/2017	21:28
tert-Butylbenzene	< 17.8	ug/Kg	3/2/2017	21:28
Tetrachloroethene	< 17.8	ug/Kg	3/2/2017	21:28
Toluene	< 17.8	ug/Kg	3/2/2017	21:28
trans-1,2-Dichloroethene	< 17.8	ug/Kg	3/2/2017	21:28
trans-1,3-Dichloropropene	< 17.8	ug/Kg	3/2/2017	21:28
Trichloroethene	< 17.8	ug/Kg	3/2/2017	21:28
Trichlorofluoromethane	< 17.8	ug/Kg	3/2/2017	21:28
Vinyl chloride	< 17.8	ug/Kg	3/2/2017	21:28

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	103	82.1 - 123		3/2/2017 21:28
4-Bromofluorobenzene	81.6	84.6 - 112	*	3/2/2017 21:28
Pentafluorobenzene	103	91.4 - 111		3/2/2017 21:28
Toluene-D8	95.8	90.3 - 108		3/2/2017 21:28

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39673.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.884	mg/Kg		2/28/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-6 (0-2)

**Lab Sample ID:** 170698-05

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 2/28/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-6 (4-6)

**Lab Sample ID:** 170698-06

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.148	mg/Kg		2/27/2017 14:01

Method Reference(s): EPA 7471B  
Preparation Date: 2/26/2017  
Data File: Hg170227B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	17200	mg/Kg		2/28/2017 00:44
Antimony	< 5.21	mg/Kg		2/28/2017 18:59
Arsenic	57.6	mg/Kg		2/28/2017 00:44
Barium	450	mg/Kg		2/28/2017 00:44
Beryllium	1.89	mg/Kg		2/28/2017 00:44
Cadmium	< 0.434	mg/Kg		2/28/2017 00:44
Calcium	6210	mg/Kg		2/28/2017 00:44
Chromium	25.6	mg/Kg		2/28/2017 00:44
Cobalt	8.22	mg/Kg		2/28/2017 00:44
Copper	20.1	mg/Kg		2/28/2017 00:44
Iron	21200	mg/Kg		2/28/2017 18:59
Lead	15.0	mg/Kg		2/28/2017 18:59
Magnesium	1640	mg/Kg		2/28/2017 00:44
Manganese	96.6	mg/Kg		2/28/2017 00:44
Nickel	32.1	mg/Kg		2/28/2017 00:44
Potassium	1730	mg/Kg		2/28/2017 00:44
Selenium	< 1.74	mg/Kg		2/28/2017 00:44
Silver	1.78	mg/Kg		2/28/2017 00:44
Sodium	480	mg/Kg		2/28/2017 00:44
Thallium	< 2.17	mg/Kg		2/28/2017 00:44
Vanadium	135	mg/Kg		2/28/2017 00:44
Zinc	30.2	mg/Kg		2/28/2017 00:44

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-6 (4-6)

**Lab Sample ID:** 170698-06

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/25/2017  
**Data File:** 022717C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0508	mg/Kg		3/2/2017 02:32
PCB-1221	< 0.0508	mg/Kg		3/2/2017 02:32
PCB-1232	< 0.0508	mg/Kg		3/2/2017 02:32
PCB-1242	< 0.0508	mg/Kg		3/2/2017 02:32
PCB-1248	< 0.0508	mg/Kg		3/2/2017 02:32
PCB-1254	< 0.0508	mg/Kg		3/2/2017 02:32
PCB-1260	< 0.0508	mg/Kg		3/2/2017 02:32
PCB-1262	< 0.0508	mg/Kg		3/2/2017 02:32
PCB-1268	< 0.0508	mg/Kg		3/2/2017 02:32

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	61.9	10 - 142		3/2/2017 02:32
Tetrachloro-m-xylene	12.6	10 - 136		3/2/2017 02:32

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 5.08	ug/Kg		2/28/2017 17:15
4,4-DDE	< 5.08	ug/Kg		2/28/2017 17:15
4,4-DDT	< 5.08	ug/Kg		2/28/2017 17:15
Aldrin	< 5.08	ug/Kg		2/28/2017 17:15
alpha-BHC	< 5.08	ug/Kg		2/28/2017 17:15
beta-BHC	< 5.08	ug/Kg		2/28/2017 17:15
cis-Chlordane	< 5.08	ug/Kg		2/28/2017 17:15
delta-BHC	< 5.08	ug/Kg		2/28/2017 17:15
Dieldrin	< 5.08	ug/Kg		2/28/2017 17:15

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-6 (4-6)

**Lab Sample ID:** 170698-06

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Endosulfan I	< 5.08	ug/Kg	2/28/2017	17:15
Endosulfan II	< 5.08	ug/Kg	2/28/2017	17:15
Endosulfan Sulfate	< 5.08	ug/Kg	2/28/2017	17:15
Endrin	< 5.08	ug/Kg	2/28/2017	17:15
Endrin Aldehyde	< 5.08	ug/Kg	2/28/2017	17:15
Endrin Ketone	< 5.08	ug/Kg	2/28/2017	17:15
gamma-BHC (Lindane)	< 5.08	ug/Kg	2/28/2017	17:15
Heptachlor	< 5.08	ug/Kg	2/28/2017	17:15
Heptachlor Epoxide	< 5.08	ug/Kg	2/28/2017	17:15
Methoxychlor	< 5.08	ug/Kg	2/28/2017	17:15
Toxaphene	< 50.8	ug/Kg	2/28/2017	17:15
trans-Chlordane	< 5.08	ug/Kg	2/28/2017	17:15

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	51.9	10 - 152		2/28/2017 17:15
Tetrachloro-m-xylene (1)	13.6	10 - 91.1		2/28/2017 17:15

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 508	ug/Kg		3/3/2017 01:12
1,2,4,5-Tetrachlorobenzene	< 508	ug/Kg		3/3/2017 01:12
1,2,4-Trichlorobenzene	< 508	ug/Kg		3/3/2017 01:12
1,2-Dichlorobenzene	< 508	ug/Kg		3/3/2017 01:12
1,3-Dichlorobenzene	< 508	ug/Kg		3/3/2017 01:12
1,4-Dichlorobenzene	< 508	ug/Kg		3/3/2017 01:12
2,2-Oxybis (1-chloropropane)	< 508	ug/Kg		3/3/2017 01:12
2,4-Dinitrotoluene	< 508	ug/Kg		3/3/2017 01:12
2,6-Dinitrotoluene	< 508	ug/Kg		3/3/2017 01:12
2-Chloronaphthalene	< 508	ug/Kg		3/3/2017 01:12
2-Methylnaphthalene	< 508	ug/Kg		3/3/2017 01:12
2-Nitroaniline	< 1020	ug/Kg		3/3/2017 01:12

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-6 (4-6)		
<b>Lab Sample ID:</b>	170698-06	<b>Date Sampled:</b>	2/22/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/24/2017
3,3'-Dichlorobenzidine	< 508	ug/Kg	3/3/2017 01:12
3-Nitroaniline	< 1020	ug/Kg	3/3/2017 01:12
4-Bromophenyl phenyl ether	< 508	ug/Kg	3/3/2017 01:12
4-Chloroaniline	< 508	ug/Kg	3/3/2017 01:12
4-Chlorophenyl phenyl ether	< 508	ug/Kg	3/3/2017 01:12
4-Nitroaniline	< 1020	ug/Kg	3/3/2017 01:12
Acenaphthene	< 508	ug/Kg	3/3/2017 01:12
Acenaphthylene	< 508	ug/Kg	3/3/2017 01:12
Acetophenone	< 508	ug/Kg	3/3/2017 01:12
Anthracene	< 508	ug/Kg	3/3/2017 01:12
Atrazine	< 508	ug/Kg	3/3/2017 01:12
Benzaldehyde	< 508	ug/Kg	3/3/2017 01:12
Benzo (a) anthracene	< 508	ug/Kg	3/3/2017 01:12
Benzo (a) pyrene	< 508	ug/Kg	3/3/2017 01:12
Benzo (b) fluoranthene	< 508	ug/Kg	3/3/2017 01:12
Benzo (g,h,i) perylene	< 508	ug/Kg	3/3/2017 01:12
Benzo (k) fluoranthene	< 508	ug/Kg	3/3/2017 01:12
Bis (2-chloroethoxy) methane	< 508	ug/Kg	3/3/2017 01:12
Bis (2-chloroethyl) ether	< 508	ug/Kg	3/3/2017 01:12
Bis (2-ethylhexyl) phthalate	< 508	ug/Kg	3/3/2017 01:12
Butylbenzylphthalate	< 508	ug/Kg	3/3/2017 01:12
Caprolactam	< 508	ug/Kg	3/3/2017 01:12
Carbazole	< 508	ug/Kg	3/3/2017 01:12
Chrysene	< 508	ug/Kg	3/3/2017 01:12
Dibenz (a,h) anthracene	< 508	ug/Kg	3/3/2017 01:12
Dibenzofuran	< 508	ug/Kg	3/3/2017 01:12
Diethyl phthalate	< 508	ug/Kg	3/3/2017 01:12
Dimethyl phthalate	< 1020	ug/Kg	3/3/2017 01:12
Di-n-butyl phthalate	< 508	ug/Kg	3/3/2017 01:12
Di-n-octylphthalate	< 508	ug/Kg	3/3/2017 01:12
Fluoranthene	< 508	ug/Kg	3/3/2017 01:12
Fluorene	< 508	ug/Kg	3/3/2017 01:12

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-6 (4-6)

**Lab Sample ID:** 170698-06

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Hexachlorobenzene	< 508	ug/Kg	3/3/2017 01:12
Hexachlorobutadiene	< 508	ug/Kg	3/3/2017 01:12
Hexachlorocyclopentadiene	< 508	ug/Kg	3/3/2017 01:12
Hexachloroethane	< 508	ug/Kg	3/3/2017 01:12
Indeno (1,2,3-cd) pyrene	< 508	ug/Kg	3/3/2017 01:12
Isophorone	< 508	ug/Kg	3/3/2017 01:12
Naphthalene	< 508	ug/Kg	3/3/2017 01:12
Nitrobenzene	< 508	ug/Kg	3/3/2017 01:12
N-Nitroso-di-n-propylamine	< 508	ug/Kg	3/3/2017 01:12
N-Nitrosodiphenylamine	< 508	ug/Kg	3/3/2017 01:12
Phenanthrene	< 508	ug/Kg	3/3/2017 01:12
Pyrene	< 508	ug/Kg	3/3/2017 01:12

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	55.8	33.7 - 113		3/3/2017 01:12
Nitrobenzene-d5	52.1	33.3 - 91.5		3/3/2017 01:12
Terphenyl-d14	71.5	66.1 - 113		3/3/2017 01:12

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/27/2017  
**Data File:** B17645.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 12.4	ug/Kg		3/2/2017 21:52
1,1,2,2-Tetrachloroethane	< 12.4	ug/Kg		3/2/2017 21:52
1,1,2-Trichloroethane	< 12.4	ug/Kg		3/2/2017 21:52
1,1-Dichloroethane	< 12.4	ug/Kg		3/2/2017 21:52
1,1-Dichloroethene	< 12.4	ug/Kg		3/2/2017 21:52
1,2,3-Trichlorobenzene	< 31.1	ug/Kg		3/2/2017 21:52
1,2,4-Trichlorobenzene	< 31.1	ug/Kg		3/2/2017 21:52
1,2,4-Trimethylbenzene	< 12.4	ug/Kg		3/2/2017 21:52
1,2-Dibromo-3-Chloropropane	< 62.1	ug/Kg		3/2/2017 21:52
1,2-Dibromoethane	< 12.4	ug/Kg		3/2/2017 21:52

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-6 (4-6)		
<b>Lab Sample ID:</b>	170698-06	<b>Date Sampled:</b>	2/22/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/24/2017

1,2-Dichlorobenzene	< 12.4	ug/Kg	3/2/2017 21:52
1,2-Dichloroethane	< 12.4	ug/Kg	3/2/2017 21:52
1,2-Dichloropropane	< 12.4	ug/Kg	3/2/2017 21:52
1,3,5-Trimethylbenzene	< 12.4	ug/Kg	3/2/2017 21:52
1,3-Dichlorobenzene	< 12.4	ug/Kg	3/2/2017 21:52
1,4-Dichlorobenzene	< 12.4	ug/Kg	3/2/2017 21:52
1,4-dioxane	< 12.4	ug/Kg	3/2/2017 21:52
2-Butanone	< 62.1	ug/Kg	3/2/2017 21:52
2-Hexanone	< 31.1	ug/Kg	3/2/2017 21:52
4-Methyl-2-pentanone	< 31.1	ug/Kg	3/2/2017 21:52
Acetone	< 62.1	ug/Kg	3/2/2017 21:52
Benzene	< 12.4	ug/Kg	3/2/2017 21:52
Bromochloromethane	< 31.1	ug/Kg	3/2/2017 21:52
Bromodichloromethane	< 12.4	ug/Kg	3/2/2017 21:52
Bromoform	< 31.1	ug/Kg	3/2/2017 21:52
Bromomethane	< 12.4	ug/Kg	3/2/2017 21:52
Carbon disulfide	< 12.4	ug/Kg	3/2/2017 21:52
Carbon Tetrachloride	< 12.4	ug/Kg	3/2/2017 21:52
Chlorobenzene	< 12.4	ug/Kg	3/2/2017 21:52
Chloroethane	< 12.4	ug/Kg	3/2/2017 21:52
Chloroform	< 12.4	ug/Kg	3/2/2017 21:52
Chloromethane	< 12.4	ug/Kg	3/2/2017 21:52
cis-1,2-Dichloroethene	< 12.4	ug/Kg	3/2/2017 21:52
cis-1,3-Dichloropropene	< 12.4	ug/Kg	3/2/2017 21:52
Cyclohexane	< 62.1	ug/Kg	3/2/2017 21:52
Dibromochloromethane	< 12.4	ug/Kg	3/2/2017 21:52
Dichlorodifluoromethane	< 12.4	ug/Kg	3/2/2017 21:52
Ethylbenzene	< 12.4	ug/Kg	3/2/2017 21:52
Freon 113	< 12.4	ug/Kg	3/2/2017 21:52
Isopropylbenzene	< 12.4	ug/Kg	3/2/2017 21:52
m,p-Xylene	< 12.4	ug/Kg	3/2/2017 21:52
Methyl acetate	< 12.4	ug/Kg	3/2/2017 21:52

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-6 (4-6)

**Lab Sample ID:** 170698-06

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Methyl tert-butyl Ether	< 12.4	ug/Kg	3/2/2017	21:52
Methylcyclohexane	< 12.4	ug/Kg	3/2/2017	21:52
Methylene chloride	< 31.1	ug/Kg	3/2/2017	21:52
Naphthalene	< 31.1	ug/Kg	3/2/2017	21:52
n-Butylbenzene	< 12.4	ug/Kg	3/2/2017	21:52
n-Propylbenzene	< 12.4	ug/Kg	3/2/2017	21:52
o-Xylene	< 12.4	ug/Kg	3/2/2017	21:52
p-Isopropyltoluene	< 12.4	ug/Kg	3/2/2017	21:52
sec-Butylbenzene	< 12.4	ug/Kg	3/2/2017	21:52
Styrene	< 31.1	ug/Kg	3/2/2017	21:52
tert-Butylbenzene	< 12.4	ug/Kg	3/2/2017	21:52
Tetrachloroethene	< 12.4	ug/Kg	3/2/2017	21:52
Toluene	< 12.4	ug/Kg	3/2/2017	21:52
trans-1,2-Dichloroethene	< 12.4	ug/Kg	3/2/2017	21:52
trans-1,3-Dichloropropene	< 12.4	ug/Kg	3/2/2017	21:52
Trichloroethene	< 12.4	ug/Kg	3/2/2017	21:52
Trichlorofluoromethane	< 12.4	ug/Kg	3/2/2017	21:52
Vinyl chloride	< 12.4	ug/Kg	3/2/2017	21:52

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>141</b>	82.1 - 123	*	3/2/2017 21:52
4-Bromofluorobenzene	<b>67.8</b>	84.6 - 112	*	3/2/2017 21:52
Pentafluorobenzene	<b>112</b>	91.4 - 111	*	3/2/2017 21:52
Toluene-D8	<b>91.5</b>	90.3 - 108		3/2/2017 21:52

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39674.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.711	mg/Kg		2/28/2017

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**Client:** **Bergmann Associates**

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-6 (4-6)

**Lab Sample ID:** 170698-06

**Date Sampled:** 2/22/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 2/28/2017

DRAFT





**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-8 (0-2)

**Lab Sample ID:** 170698-07

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0545	mg/Kg		2/27/2017 14:14

Method Reference(s): EPA 7471B  
Preparation Date: 2/26/2017  
Data File: Hg170227B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	12700	mg/Kg		2/28/2017 00:48
Antimony	< 3.44	mg/Kg		2/28/2017 19:03
Arsenic	5.01	mg/Kg		2/28/2017 00:48
Barium	86.8	mg/Kg		2/28/2017 00:48
Beryllium	0.629	mg/Kg		2/28/2017 00:48
Cadmium	< 0.287	mg/Kg		2/28/2017 00:48
Calcium	7020	mg/Kg		2/28/2017 00:48
Chromium	16.1	mg/Kg		2/28/2017 00:48
Cobalt	8.65	mg/Kg		2/28/2017 00:48
Copper	19.6	mg/Kg		2/28/2017 00:48
Iron	20500	mg/Kg		2/28/2017 19:03
Lead	25.6	mg/Kg		2/28/2017 19:03
Magnesium	4610	mg/Kg		2/28/2017 00:48
Manganese	350	mg/Kg		2/28/2017 00:48
Nickel	20.5	mg/Kg		2/28/2017 00:48
Potassium	1430	mg/Kg		2/28/2017 00:48
Selenium	< 1.15	mg/Kg		2/28/2017 00:48
Silver	1.64	mg/Kg		2/28/2017 00:48
Sodium	< 144	mg/Kg		2/28/2017 00:48
Thallium	< 1.44	mg/Kg		2/28/2017 00:48
Vanadium	21.2	mg/Kg		2/28/2017 00:48
Zinc	62.0	mg/Kg		2/28/2017 00:48

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-8 (0-2)

**Lab Sample ID:** 170698-07

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/25/2017  
**Data File:** 022717C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0338	mg/Kg		3/2/2017 02:54
PCB-1221	< 0.0338	mg/Kg		3/2/2017 02:54
PCB-1232	< 0.0338	mg/Kg		3/2/2017 02:54
PCB-1242	< 0.0338	mg/Kg		3/2/2017 02:54
PCB-1248	< 0.0338	mg/Kg		3/2/2017 02:54
PCB-1254	< 0.0338	mg/Kg		3/2/2017 02:54
PCB-1260	< 0.0338	mg/Kg		3/2/2017 02:54
PCB-1262	< 0.0338	mg/Kg		3/2/2017 02:54
PCB-1268	< 0.0338	mg/Kg		3/2/2017 02:54

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	48.9	10 - 142		3/2/2017 02:54
Tetrachloro-m-xylene	25.4	10 - 136		3/2/2017 02:54

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.38	ug/Kg		2/28/2017 17:30
4,4-DDE	< 3.38	ug/Kg		2/28/2017 17:30
4,4-DDT	< 3.38	ug/Kg		2/28/2017 17:30
Aldrin	< 3.38	ug/Kg		2/28/2017 17:30
alpha-BHC	< 3.38	ug/Kg		2/28/2017 17:30
beta-BHC	< 3.38	ug/Kg		2/28/2017 17:30
cis-Chlordane	< 3.38	ug/Kg		2/28/2017 17:30
delta-BHC	< 3.38	ug/Kg		2/28/2017 17:30
Dieldrin	< 3.38	ug/Kg		2/28/2017 17:30

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-8 (0-2)

**Lab Sample ID:** 170698-07

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Endosulfan I	< 3.38	ug/Kg	2/28/2017 17:30
Endosulfan II	< 3.38	ug/Kg	2/28/2017 17:30
Endosulfan Sulfate	< 3.38	ug/Kg	2/28/2017 17:30
Endrin	< 3.38	ug/Kg	2/28/2017 17:30
Endrin Aldehyde	< 3.38	ug/Kg	2/28/2017 17:30
Endrin Ketone	< 3.38	ug/Kg	2/28/2017 17:30
gamma-BHC (Lindane)	< 3.38	ug/Kg	2/28/2017 17:30
Heptachlor	< 3.38	ug/Kg	2/28/2017 17:30
Heptachlor Epoxide	< 3.38	ug/Kg	2/28/2017 17:30
Methoxychlor	< 3.38	ug/Kg	2/28/2017 17:30
Toxaphene	< 33.8	ug/Kg	2/28/2017 17:30
trans-Chlordane	< 3.38	ug/Kg	2/28/2017 17:30

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	53.5	10 - 152		2/28/2017 17:30
Tetrachloro-m-xylene (1)	30.7	10 - 91.1		2/28/2017 17:30

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 354	ug/Kg		3/3/2017 01:41
1,2,4,5-Tetrachlorobenzene	< 354	ug/Kg		3/3/2017 01:41
1,2,4-Trichlorobenzene	< 354	ug/Kg		3/3/2017 01:41
1,2-Dichlorobenzene	< 354	ug/Kg		3/3/2017 01:41
1,3-Dichlorobenzene	< 354	ug/Kg		3/3/2017 01:41
1,4-Dichlorobenzene	< 354	ug/Kg		3/3/2017 01:41
2,2-Oxybis (1-chloropropane)	< 354	ug/Kg		3/3/2017 01:41
2,4-Dinitrotoluene	< 354	ug/Kg		3/3/2017 01:41
2,6-Dinitrotoluene	< 354	ug/Kg		3/3/2017 01:41
2-Chloronaphthalene	< 354	ug/Kg		3/3/2017 01:41
2-Methylnaphthalene	< 354	ug/Kg		3/3/2017 01:41
2-Nitroaniline	< 708	ug/Kg		3/3/2017 01:41

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-8 (0-2)

**Lab Sample ID:** 170698-07

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

3,3'-Dichlorobenzidine	< 354	ug/Kg	3/3/2017 01:41
3-Nitroaniline	< 708	ug/Kg	3/3/2017 01:41
4-Bromophenyl phenyl ether	< 354	ug/Kg	3/3/2017 01:41
4-Chloroaniline	< 354	ug/Kg	3/3/2017 01:41
4-Chlorophenyl phenyl ether	< 354	ug/Kg	3/3/2017 01:41
4-Nitroaniline	< 708	ug/Kg	3/3/2017 01:41
Acenaphthene	< 354	ug/Kg	3/3/2017 01:41
Acenaphthylene	< 354	ug/Kg	3/3/2017 01:41
Acetophenone	< 354	ug/Kg	3/3/2017 01:41
Anthracene	< 354	ug/Kg	3/3/2017 01:41
Atrazine	< 354	ug/Kg	3/3/2017 01:41
Benzaldehyde	< 354	ug/Kg	3/3/2017 01:41
Benzo (a) anthracene	< 354	ug/Kg	3/3/2017 01:41
Benzo (a) pyrene	< 354	ug/Kg	3/3/2017 01:41
Benzo (b) fluoranthene	< 354	ug/Kg	3/3/2017 01:41
Benzo (g,h,i) perylene	< 354	ug/Kg	3/3/2017 01:41
Benzo (k) fluoranthene	< 354	ug/Kg	3/3/2017 01:41
Bis (2-chloroethoxy) methane	< 354	ug/Kg	3/3/2017 01:41
Bis (2-chloroethyl) ether	< 354	ug/Kg	3/3/2017 01:41
Bis (2-ethylhexyl) phthalate	< 354	ug/Kg	3/3/2017 01:41
Butylbenzylphthalate	< 354	ug/Kg	3/3/2017 01:41
Caprolactam	< 354	ug/Kg	3/3/2017 01:41
Carbazole	< 354	ug/Kg	3/3/2017 01:41
Chrysene	< 354	ug/Kg	3/3/2017 01:41
Dibenz (a,h) anthracene	< 354	ug/Kg	3/3/2017 01:41
Dibenzofuran	< 354	ug/Kg	3/3/2017 01:41
Diethyl phthalate	< 354	ug/Kg	3/3/2017 01:41
Dimethyl phthalate	< 708	ug/Kg	3/3/2017 01:41
Di-n-butyl phthalate	< 354	ug/Kg	3/3/2017 01:41
Di-n-octylphthalate	< 354	ug/Kg	3/3/2017 01:41
Fluoranthene	< 354	ug/Kg	3/3/2017 01:41
Fluorene	< 354	ug/Kg	3/3/2017 01:41

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-8 (0-2)

**Lab Sample ID:** 170698-07

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Hexachlorobenzene	< 354	ug/Kg	3/3/2017 01:41
Hexachlorobutadiene	< 354	ug/Kg	3/3/2017 01:41
Hexachlorocyclopentadiene	< 354	ug/Kg	3/3/2017 01:41
Hexachloroethane	< 354	ug/Kg	3/3/2017 01:41
Indeno (1,2,3-cd) pyrene	< 354	ug/Kg	3/3/2017 01:41
Isophorone	< 354	ug/Kg	3/3/2017 01:41
Naphthalene	< 354	ug/Kg	3/3/2017 01:41
Nitrobenzene	< 354	ug/Kg	3/3/2017 01:41
N-Nitroso-di-n-propylamine	< 354	ug/Kg	3/3/2017 01:41
N-Nitrosodiphenylamine	< 354	ug/Kg	3/3/2017 01:41
Phenanthrene	< 354	ug/Kg	3/3/2017 01:41
Pyrene	< 354	ug/Kg	3/3/2017 01:41

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	74.8	33.7 - 113		3/3/2017 01:41
Nitrobenzene-d5	67.9	33.3 - 91.5		3/3/2017 01:41
Terphenyl-d14	84.0	66.1 - 113		3/3/2017 01:41

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/27/2017  
**Data File:** B17646.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 6.90	ug/Kg		3/2/2017 22:15
1,1,2,2-Tetrachloroethane	< 6.90	ug/Kg		3/2/2017 22:15
1,1,2-Trichloroethane	< 6.90	ug/Kg		3/2/2017 22:15
1,1-Dichloroethane	< 6.90	ug/Kg		3/2/2017 22:15
1,1-Dichloroethene	< 6.90	ug/Kg		3/2/2017 22:15
1,2,3-Trichlorobenzene	< 17.3	ug/Kg		3/2/2017 22:15
1,2,4-Trichlorobenzene	< 17.3	ug/Kg		3/2/2017 22:15
1,2,4-Trimethylbenzene	< 6.90	ug/Kg		3/2/2017 22:15
1,2-Dibromo-3-Chloropropane	< 34.5	ug/Kg		3/2/2017 22:15
1,2-Dibromoethane	< 6.90	ug/Kg		3/2/2017 22:15

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-8 (0-2)		
<b>Lab Sample ID:</b>	170698-07	<b>Date Sampled:</b>	2/23/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/24/2017
1,2-Dichlorobenzene	< 6.90	ug/Kg	3/2/2017 22:15
1,2-Dichloroethane	< 6.90	ug/Kg	3/2/2017 22:15
1,2-Dichloropropane	< 6.90	ug/Kg	3/2/2017 22:15
1,3,5-Trimethylbenzene	< 6.90	ug/Kg	3/2/2017 22:15
1,3-Dichlorobenzene	< 6.90	ug/Kg	3/2/2017 22:15
1,4-Dichlorobenzene	< 6.90	ug/Kg	3/2/2017 22:15
1,4-dioxane	< 69.0	ug/Kg	3/2/2017 22:15
2-Butanone	< 34.5	ug/Kg	3/2/2017 22:15
2-Hexanone	< 17.3	ug/Kg	3/2/2017 22:15
4-Methyl-2-pentanone	< 17.3	ug/Kg	3/2/2017 22:15
Acetone	< 34.5	ug/Kg	3/2/2017 22:15
Benzene	< 6.90	ug/Kg	3/2/2017 22:15
Bromochloromethane	< 17.3	ug/Kg	3/2/2017 22:15
Bromodichloromethane	< 6.90	ug/Kg	3/2/2017 22:15
Bromoform	< 17.3	ug/Kg	3/2/2017 22:15
Bromomethane	< 6.90	ug/Kg	3/2/2017 22:15
Carbon disulfide	< 6.90	ug/Kg	3/2/2017 22:15
Carbon Tetrachloride	< 6.90	ug/Kg	3/2/2017 22:15
Chlorobenzene	< 6.90	ug/Kg	3/2/2017 22:15
Chloroethane	< 6.90	ug/Kg	3/2/2017 22:15
Chloroform	< 6.90	ug/Kg	3/2/2017 22:15
Chloromethane	< 6.90	ug/Kg	3/2/2017 22:15
cis-1,2-Dichloroethene	< 6.90	ug/Kg	3/2/2017 22:15
cis-1,3-Dichloropropene	< 6.90	ug/Kg	3/2/2017 22:15
Cyclohexane	< 34.5	ug/Kg	3/2/2017 22:15
Dibromochloromethane	< 6.90	ug/Kg	3/2/2017 22:15
Dichlorodifluoromethane	< 6.90	ug/Kg	3/2/2017 22:15
Ethylbenzene	< 6.90	ug/Kg	3/2/2017 22:15
Freon 113	< 6.90	ug/Kg	3/2/2017 22:15
Isopropylbenzene	< 6.90	ug/Kg	3/2/2017 22:15
m,p-Xylene	< 6.90	ug/Kg	3/2/2017 22:15
Methyl acetate	< 6.90	ug/Kg	3/2/2017 22:15

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-8 (0-2)

**Lab Sample ID:** 170698-07

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Methyl tert-butyl Ether	< 6.90	ug/Kg	3/2/2017 22:15
Methylcyclohexane	< 6.90	ug/Kg	3/2/2017 22:15
Methylene chloride	< 17.3	ug/Kg	3/2/2017 22:15
Naphthalene	< 17.3	ug/Kg	3/2/2017 22:15
n-Butylbenzene	< 6.90	ug/Kg	3/2/2017 22:15
n-Propylbenzene	< 6.90	ug/Kg	3/2/2017 22:15
o-Xylene	< 6.90	ug/Kg	3/2/2017 22:15
p-Isopropyltoluene	< 6.90	ug/Kg	3/2/2017 22:15
sec-Butylbenzene	< 6.90	ug/Kg	3/2/2017 22:15
Styrene	< 17.3	ug/Kg	3/2/2017 22:15
tert-Butylbenzene	< 6.90	ug/Kg	3/2/2017 22:15
Tetrachloroethene	< 6.90	ug/Kg	3/2/2017 22:15
Toluene	< 6.90	ug/Kg	3/2/2017 22:15
trans-1,2-Dichloroethene	< 6.90	ug/Kg	3/2/2017 22:15
trans-1,3-Dichloropropene	< 6.90	ug/Kg	3/2/2017 22:15
Trichloroethene	< 6.90	ug/Kg	3/2/2017 22:15
Trichlorofluoromethane	< 6.90	ug/Kg	3/2/2017 22:15
Vinyl chloride	< 6.90	ug/Kg	3/2/2017 22:15

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>98.7</b>	82.1 - 123		3/2/2017 22:15
4-Bromofluorobenzene	<b>89.6</b>	84.6 - 112		3/2/2017 22:15
Pentafluorobenzene	<b>99.6</b>	91.4 - 111		3/2/2017 22:15
Toluene-D8	<b>96.5</b>	90.3 - 108		3/2/2017 22:15

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39675.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.525	mg/Kg		2/28/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-8 (0-2)

**Lab Sample ID:** 170698-07

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 2/28/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-8 (6-8)

**Lab Sample ID:** 170698-08

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0224	mg/Kg		2/27/2017 14:18

Method Reference(s): EPA 7471B  
Preparation Date: 2/26/2017  
Data File: Hg170227B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	7880	mg/Kg		2/28/2017 01:01
Antimony	< 3.42	mg/Kg		2/28/2017 19:07
Arsenic	2.95	mg/Kg		2/28/2017 19:07
Barium	41.2	mg/Kg		2/28/2017 01:01
Beryllium	0.358	mg/Kg		2/28/2017 01:01
Cadmium	< 0.285	mg/Kg		2/28/2017 01:01
Calcium	4210	mg/Kg		2/28/2017 01:01
Chromium	9.32	mg/Kg		2/28/2017 01:01
Cobalt	6.87	mg/Kg		2/28/2017 01:01
Copper	8.52	mg/Kg		2/28/2017 01:01
Iron	14600	mg/Kg		2/28/2017 19:07
Lead	7.29	mg/Kg		2/28/2017 19:07
Magnesium	3720	mg/Kg		2/28/2017 01:01
Manganese	223	mg/Kg		2/28/2017 01:01
Nickel	13.8	mg/Kg		2/28/2017 01:01
Potassium	936	mg/Kg		2/28/2017 01:01
Selenium	< 1.14	mg/Kg		2/28/2017 01:01
Silver	1.39	mg/Kg		2/28/2017 01:01
Sodium	< 143	mg/Kg		2/28/2017 01:01
Thallium	< 1.43	mg/Kg		2/28/2017 01:01
Vanadium	13.4	mg/Kg		2/28/2017 01:01
Zinc	39.0	mg/Kg		2/28/2017 01:01

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-8 (6-8)

**Lab Sample ID:** 170698-08

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 2/25/2017  
**Data File:** 022717C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0341	mg/Kg		3/2/2017 03:16
PCB-1221	< 0.0341	mg/Kg		3/2/2017 03:16
PCB-1232	< 0.0341	mg/Kg		3/2/2017 03:16
PCB-1242	< 0.0341	mg/Kg		3/2/2017 03:16
PCB-1248	< 0.0341	mg/Kg		3/2/2017 03:16
PCB-1254	< 0.0341	mg/Kg		3/2/2017 03:16
PCB-1260	< 0.0341	mg/Kg		3/2/2017 03:16
PCB-1262	< 0.0341	mg/Kg		3/2/2017 03:16
PCB-1268	< 0.0341	mg/Kg		3/2/2017 03:16

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	59.9	10 - 142		3/2/2017 03:16
Tetrachloro-m-xylene	33.8	10 - 136		3/2/2017 03:16

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.41	ug/Kg		3/1/2017 20:27
4,4-DDE	< 3.41	ug/Kg		3/1/2017 20:27
4,4-DDT	< 3.41	ug/Kg		3/1/2017 20:27
Aldrin	< 3.41	ug/Kg		3/1/2017 20:27
alpha-BHC	< 3.41	ug/Kg		3/1/2017 20:27
beta-BHC	< 3.41	ug/Kg		3/1/2017 20:27
cis-Chlordane	< 3.41	ug/Kg		3/1/2017 20:27
delta-BHC	< 3.41	ug/Kg		3/1/2017 20:27
Dieldrin	< 3.41	ug/Kg		3/1/2017 20:27

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-8 (6-8)

**Lab Sample ID:** 170698-08

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Endosulfan I	< 3.41	ug/Kg	3/1/2017	20:27
Endosulfan II	< 3.41	ug/Kg	3/1/2017	20:27
Endosulfan Sulfate	< 3.41	ug/Kg	3/1/2017	20:27
Endrin	< 3.41	ug/Kg	3/1/2017	20:27
Endrin Aldehyde	< 3.41	ug/Kg	3/1/2017	20:27
Endrin Ketone	< 3.41	ug/Kg	3/1/2017	20:27
gamma-BHC (Lindane)	< 3.41	ug/Kg	3/1/2017	20:27
Heptachlor	< 3.41	ug/Kg	3/1/2017	20:27
Heptachlor Epoxide	< 3.41	ug/Kg	3/1/2017	20:27
Methoxychlor	< 3.41	ug/Kg	3/1/2017	20:27
Toxaphene	< 34.1	ug/Kg	3/1/2017	20:27
trans-Chlordane	< 3.41	ug/Kg	3/1/2017	20:27

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	42.2	10 - 152		3/1/2017 20:27
Tetrachloro-m-xylene (1)	22.5	10 - 91.1		3/1/2017 20:27

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 2/28/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 327	ug/Kg		3/3/2017 02:11
1,2,4,5-Tetrachlorobenzene	< 327	ug/Kg		3/3/2017 02:11
1,2,4-Trichlorobenzene	< 327	ug/Kg		3/3/2017 02:11
1,2-Dichlorobenzene	< 327	ug/Kg		3/3/2017 02:11
1,3-Dichlorobenzene	< 327	ug/Kg		3/3/2017 02:11
1,4-Dichlorobenzene	< 327	ug/Kg		3/3/2017 02:11
2,2-Oxybis (1-chloropropane)	< 327	ug/Kg		3/3/2017 02:11
2,4-Dinitrotoluene	< 327	ug/Kg		3/3/2017 02:11
2,6-Dinitrotoluene	< 327	ug/Kg		3/3/2017 02:11
2-Chloronaphthalene	< 327	ug/Kg		3/3/2017 02:11
2-Methylnaphthalene	< 327	ug/Kg		3/3/2017 02:11
2-Nitroaniline	< 654	ug/Kg		3/3/2017 02:11

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-8 (6-8)		
<b>Lab Sample ID:</b>	170698-08	<b>Date Sampled:</b>	2/23/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/24/2017
3,3'-Dichlorobenzidine	< 327	ug/Kg	3/3/2017 02:11
3-Nitroaniline	< 654	ug/Kg	3/3/2017 02:11
4-Bromophenyl phenyl ether	< 327	ug/Kg	3/3/2017 02:11
4-Chloroaniline	< 327	ug/Kg	3/3/2017 02:11
4-Chlorophenyl phenyl ether	< 327	ug/Kg	3/3/2017 02:11
4-Nitroaniline	< 654	ug/Kg	3/3/2017 02:11
Acenaphthene	< 327	ug/Kg	3/3/2017 02:11
Acenaphthylene	< 327	ug/Kg	3/3/2017 02:11
Acetophenone	< 327	ug/Kg	3/3/2017 02:11
Anthracene	< 327	ug/Kg	3/3/2017 02:11
Atrazine	< 327	ug/Kg	3/3/2017 02:11
Benzaldehyde	< 327	ug/Kg	3/3/2017 02:11
Benzo (a) anthracene	< 327	ug/Kg	3/3/2017 02:11
Benzo (a) pyrene	< 327	ug/Kg	3/3/2017 02:11
Benzo (b) fluoranthene	< 327	ug/Kg	3/3/2017 02:11
Benzo (g,h,i) perylene	< 327	ug/Kg	3/3/2017 02:11
Benzo (k) fluoranthene	< 327	ug/Kg	3/3/2017 02:11
Bis (2-chloroethoxy) methane	< 327	ug/Kg	3/3/2017 02:11
Bis (2-chloroethyl) ether	< 327	ug/Kg	3/3/2017 02:11
Bis (2-ethylhexyl) phthalate	< 327	ug/Kg	3/3/2017 02:11
Butylbenzylphthalate	< 327	ug/Kg	3/3/2017 02:11
Caprolactam	< 327	ug/Kg	3/3/2017 02:11
Carbazole	< 327	ug/Kg	3/3/2017 02:11
Chrysene	< 327	ug/Kg	3/3/2017 02:11
Dibenz (a,h) anthracene	< 327	ug/Kg	3/3/2017 02:11
Dibenzofuran	< 327	ug/Kg	3/3/2017 02:11
Diethyl phthalate	< 327	ug/Kg	3/3/2017 02:11
Dimethyl phthalate	< 654	ug/Kg	3/3/2017 02:11
Di-n-butyl phthalate	< 327	ug/Kg	3/3/2017 02:11
Di-n-octylphthalate	< 327	ug/Kg	3/3/2017 02:11
Fluoranthene	< 327	ug/Kg	3/3/2017 02:11
Fluorene	< 327	ug/Kg	3/3/2017 02:11

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-8 (6-8)

**Lab Sample ID:** 170698-08

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Hexachlorobenzene	< 327	ug/Kg	3/3/2017 02:11
Hexachlorobutadiene	< 327	ug/Kg	3/3/2017 02:11
Hexachlorocyclopentadiene	< 327	ug/Kg	3/3/2017 02:11
Hexachloroethane	< 327	ug/Kg	3/3/2017 02:11
Indeno (1,2,3-cd) pyrene	< 327	ug/Kg	3/3/2017 02:11
Isophorone	< 327	ug/Kg	3/3/2017 02:11
Naphthalene	< 327	ug/Kg	3/3/2017 02:11
Nitrobenzene	< 327	ug/Kg	3/3/2017 02:11
N-Nitroso-di-n-propylamine	< 327	ug/Kg	3/3/2017 02:11
N-Nitrosodiphenylamine	< 327	ug/Kg	3/3/2017 02:11
Phenanthrene	< 327	ug/Kg	3/3/2017 02:11
Pyrene	< 327	ug/Kg	3/3/2017 02:11

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	55.8	33.7 - 113		3/3/2017 02:11
Nitrobenzene-d5	55.4	33.3 - 91.5		3/3/2017 02:11
Terphenyl-d14	70.2	66.1 - 113		3/3/2017 02:11

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 2/27/2017  
**Data File:** B17647.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 7.51	ug/Kg		3/2/2017 22:39
1,1,2,2-Tetrachloroethane	< 7.51	ug/Kg		3/2/2017 22:39
1,1,2-Trichloroethane	< 7.51	ug/Kg		3/2/2017 22:39
1,1-Dichloroethane	< 7.51	ug/Kg		3/2/2017 22:39
1,1-Dichloroethene	< 7.51	ug/Kg		3/2/2017 22:39
1,2,3-Trichlorobenzene	< 18.8	ug/Kg		3/2/2017 22:39
1,2,4-Trichlorobenzene	< 18.8	ug/Kg		3/2/2017 22:39
1,2,4-Trimethylbenzene	< 7.51	ug/Kg		3/2/2017 22:39
1,2-Dibromo-3-Chloropropane	< 37.6	ug/Kg		3/2/2017 22:39
1,2-Dibromoethane	< 7.51	ug/Kg		3/2/2017 22:39

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-8 (6-8)		
<b>Lab Sample ID:</b>	170698-08	<b>Date Sampled:</b>	2/23/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	2/24/2017
1,2-Dichlorobenzene	< 7.51	ug/Kg	3/2/2017 22:39
1,2-Dichloroethane	< 7.51	ug/Kg	3/2/2017 22:39
1,2-Dichloropropane	< 7.51	ug/Kg	3/2/2017 22:39
1,3,5-Trimethylbenzene	< 7.51	ug/Kg	3/2/2017 22:39
1,3-Dichlorobenzene	< 7.51	ug/Kg	3/2/2017 22:39
1,4-Dichlorobenzene	< 7.51	ug/Kg	3/2/2017 22:39
1,4-dioxane	< 75.1	ug/Kg	3/2/2017 22:39
2-Butanone	< 37.6	ug/Kg	3/2/2017 22:39
2-Hexanone	< 18.8	ug/Kg	3/2/2017 22:39
4-Methyl-2-pentanone	< 18.8	ug/Kg	3/2/2017 22:39
Acetone	<b>78.3</b>	ug/Kg	3/2/2017 22:39
Benzene	< 7.51	ug/Kg	3/2/2017 22:39
Bromochloromethane	< 18.8	ug/Kg	3/2/2017 22:39
Bromodichloromethane	< 7.51	ug/Kg	3/2/2017 22:39
Bromoform	< 18.8	ug/Kg	3/2/2017 22:39
Bromomethane	< 7.51	ug/Kg	3/2/2017 22:39
Carbon disulfide	< 7.51	ug/Kg	3/2/2017 22:39
Carbon Tetrachloride	< 7.51	ug/Kg	3/2/2017 22:39
Chlorobenzene	< 7.51	ug/Kg	3/2/2017 22:39
Chloroethane	< 7.51	ug/Kg	3/2/2017 22:39
Chloroform	< 7.51	ug/Kg	3/2/2017 22:39
Chloromethane	< 7.51	ug/Kg	3/2/2017 22:39
cis-1,2-Dichloroethene	< 7.51	ug/Kg	3/2/2017 22:39
cis-1,3-Dichloropropene	< 7.51	ug/Kg	3/2/2017 22:39
Cyclohexane	< 37.6	ug/Kg	3/2/2017 22:39
Dibromochloromethane	< 7.51	ug/Kg	3/2/2017 22:39
Dichlorodifluoromethane	< 7.51	ug/Kg	3/2/2017 22:39
Ethylbenzene	< 7.51	ug/Kg	3/2/2017 22:39
Freon 113	< 7.51	ug/Kg	3/2/2017 22:39
Isopropylbenzene	< 7.51	ug/Kg	3/2/2017 22:39
m,p-Xylene	< 7.51	ug/Kg	3/2/2017 22:39
Methyl acetate	< 7.51	ug/Kg	3/2/2017 22:39

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-8 (6-8)

**Lab Sample ID:** 170698-08

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

Methyl tert-butyl Ether	< 7.51	ug/Kg	3/2/2017 22:39
Methylcyclohexane	< 7.51	ug/Kg	3/2/2017 22:39
Methylene chloride	< 18.8	ug/Kg	3/2/2017 22:39
Naphthalene	< 18.8	ug/Kg	3/2/2017 22:39
n-Butylbenzene	< 7.51	ug/Kg	3/2/2017 22:39
n-Propylbenzene	< 7.51	ug/Kg	3/2/2017 22:39
o-Xylene	< 7.51	ug/Kg	3/2/2017 22:39
p-Isopropyltoluene	< 7.51	ug/Kg	3/2/2017 22:39
sec-Butylbenzene	< 7.51	ug/Kg	3/2/2017 22:39
Styrene	< 18.8	ug/Kg	3/2/2017 22:39
tert-Butylbenzene	< 7.51	ug/Kg	3/2/2017 22:39
Tetrachloroethene	< 7.51	ug/Kg	3/2/2017 22:39
Toluene	< 7.51	ug/Kg	3/2/2017 22:39
trans-1,2-Dichloroethene	< 7.51	ug/Kg	3/2/2017 22:39
trans-1,3-Dichloropropene	< 7.51	ug/Kg	3/2/2017 22:39
Trichloroethene	< 7.51	ug/Kg	3/2/2017 22:39
Trichlorofluoromethane	< 7.51	ug/Kg	3/2/2017 22:39
Vinyl chloride	< 7.51	ug/Kg	3/2/2017 22:39

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>97.6</b>	82.1 - 123		3/2/2017 22:39
4-Bromofluorobenzene	<b>90.5</b>	84.6 - 112		3/2/2017 22:39
Pentafluorobenzene	<b>101</b>	91.4 - 111		3/2/2017 22:39
Toluene-D8	<b>95.9</b>	90.3 - 108		3/2/2017 22:39

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39676.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.487	mg/Kg		2/28/2017

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**Client:** **Bergmann Associates**

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-8 (6-8)

**Lab Sample ID:** 170698-08

**Date Sampled:** 2/23/2017

**Matrix:** Soil

**Date Received:** 2/24/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 2/28/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** SED-1

**Lab Sample ID:** 170698-09

**Date Sampled:** 2/23/2017

**Matrix:** TCLP Extract

**Date Received:** 2/24/2017

**TCLP Semi-Volatile Organics**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		3/2/2017 10:18
2,4,5-Trichlorophenol	< 80.0	ug/L	400000		3/2/2017 10:18
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		3/2/2017 10:18
2,4-Dinitrotoluene	< 40.0	ug/L	130		3/2/2017 10:18
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		3/2/2017 10:18
Hexachlorobenzene	< 40.0	ug/L	130		3/2/2017 10:18
Hexachlorobutadiene	< 40.0	ug/L	500		3/2/2017 10:18
Hexachloroethane	< 40.0	ug/L	3000		3/2/2017 10:18
Nitrobenzene	< 40.0	ug/L	2000		3/2/2017 10:18
Pentachlorophenol	< 80.0	ug/L	100000		3/2/2017 10:18
Pyridine	< 40.0	ug/L	5000		3/2/2017 10:18

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	71.0	32.4 - 137		3/2/2017 10:18
2-Fluorobiphenyl	65.5	44.7 - 111		3/2/2017 10:18
2-Fluorophenol	59.4	12 - 101		3/2/2017 10:18
Nitrobenzene-d5	71.0	52 - 99.4		3/2/2017 10:18
Phenol-d5	53.5	10 - 103		3/2/2017 10:18
Terphenyl-d14	76.3	57.9 - 113		3/2/2017 10:18

**Method Reference(s):** EPA 8270D  
EPA 1311 / 3510C  
**Preparation Date:** 2/28/2017  
**Data File:** B17621.D

**TCLP Herbicides**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
2,4,5-TP (Silvex)	<0.05	mg/L	1		2/28/2017
2,4-D	<0.50	mg/L	10		2/28/2017

**Method Reference(s):** EPA 8151A  
EPA 1311  
**Subcontractor ELAP ID:** 11148

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** SED-1

**Lab Sample ID:** 170698-09

**Date Sampled:** 2/23/2017

**Matrix:** TCLP Extract

**Date Received:** 2/24/2017

**TCLP Mercury**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		2/27/2017 15:51
Method Reference(s):	EPA 7470A EPA 1311				
Preparation Date:	2/27/2017				
Data File:	Hg170227C				

**TCLP Pesticides**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 1.00	ug/L	30		3/1/2017 18:46
Endrin	< 1.00	ug/L	20		3/1/2017 18:46
gamma-BHC (Lindane)	< 1.00	ug/L	400		3/1/2017 18:46
Heptachlor	< 1.00	ug/L	8		3/1/2017 18:46
Heptachlor Epoxide	< 1.00	ug/L	8		3/1/2017 18:46
Methoxychlor	< 1.00	ug/L	10000		3/1/2017 18:46
Toxaphene	< 10.0	ug/L	500		3/1/2017 18:46
Surrogate	Percent Recovery		Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	68.7		10 - 111		3/1/2017 18:46
Tetrachloro-m-xylene (1)	54.7		25.5 - 73		3/1/2017 18:46

Method Reference(s): EPA 8081B  
EPA 1311 / 3510C  
Preparation Date: 2/28/2017

**TCLP RCRA Metals (ICP)**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5		2/28/2017 21:00
Barium	< 0.500	mg/L	100		2/28/2017 21:00
Cadmium	< 0.0250	mg/L	1		2/28/2017 21:00
Chromium	< 0.0500	mg/L	5		2/28/2017 21:00
Lead	< 0.100	mg/L	5		2/28/2017 21:00
Selenium	< 0.100	mg/L	1		2/28/2017 21:00
Silver	< 0.0500	mg/L	5		2/28/2017 21:00

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** SED-1

**Lab Sample ID:** 170698-09

**Date Sampled:** 2/23/2017

**Matrix:** TCLP Extract

**Date Received:** 2/24/2017

**Method Reference(s):** EPA 6010C  
EPA 1311 / 3005A  
**Preparation Date:** 2/27/2017  
**Data File:** 022817b

**TCLP Volatile Organics**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		2/28/2017 02:25
1,2-Dichloroethane	< 20.0	ug/L	500		2/28/2017 02:25
2-Butanone	< 100	ug/L	200000		2/28/2017 02:25
Benzene	< 20.0	ug/L	500		2/28/2017 02:25
Carbon Tetrachloride	< 20.0	ug/L	500		2/28/2017 02:25
Chlorobenzene	< 20.0	ug/L	100000		2/28/2017 02:25
Chloroform	< 20.0	ug/L	6000		2/28/2017 02:25
Tetrachloroethene	< 20.0	ug/L	700		2/28/2017 02:25
Trichloroethene	< 20.0	ug/L	500		2/28/2017 02:25
Vinyl chloride	< 20.0	ug/L	200		2/28/2017 02:25
Surrogate	Percent Recovery		Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	99.1		81.2 - 120		2/28/2017 02:25
4-Bromofluorobenzene	89.9		82.4 - 112		2/28/2017 02:25
Pentafluorobenzene	98.8		90.2 - 112		2/28/2017 02:25
Toluene-D8	93.8		89.9 - 109		2/28/2017 02:25

**Method Reference(s):** EPA 8260C  
EPA 1311 / 5030C  
**Data File:** x39535.D



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** SED-2

**Lab Sample ID:** 170698-10

**Date Sampled:** 2/23/2017

**Matrix:** TCLP Extract

**Date Received:** 2/24/2017

**TCLP Semi-Volatile Organics**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		3/2/2017 10:47
2,4,5-Trichlorophenol	< 80.0	ug/L	400000		3/2/2017 10:47
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		3/2/2017 10:47
2,4-Dinitrotoluene	< 40.0	ug/L	130		3/2/2017 10:47
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		3/2/2017 10:47
Hexachlorobenzene	< 40.0	ug/L	130		3/2/2017 10:47
Hexachlorobutadiene	< 40.0	ug/L	500		3/2/2017 10:47
Hexachloroethane	< 40.0	ug/L	3000		3/2/2017 10:47
Nitrobenzene	< 40.0	ug/L	2000		3/2/2017 10:47
Pentachlorophenol	< 80.0	ug/L	100000		3/2/2017 10:47
Pyridine	< 40.0	ug/L	5000		3/2/2017 10:47

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	79.0	32.4 - 137		3/2/2017 10:47
2-Fluorobiphenyl	70.9	44.7 - 111		3/2/2017 10:47
2-Fluorophenol	70.1	12 - 101		3/2/2017 10:47
Nitrobenzene-d5	76.6	52 - 99.4		3/2/2017 10:47
Phenol-d5	63.3	10 - 103		3/2/2017 10:47
Terphenyl-d14	81.7	57.9 - 113		3/2/2017 10:47

**Method Reference(s):** EPA 8270D  
EPA 1311 / 3510C  
**Preparation Date:** 2/28/2017  
**Data File:** B17622.D

**TCLP Herbicides**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
2,4,5-TP (Silvex)	<0.05	mg/L	1		2/28/2017
2,4-D	<0.50	mg/L	10		2/28/2017

**Method Reference(s):** EPA 8151A  
EPA 1311  
**Subcontractor ELAP ID:** 11148





**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** SED-2

**Lab Sample ID:** 170698-10

**Date Sampled:** 2/23/2017

**Matrix:** TCLP Extract

**Date Received:** 2/24/2017

**TCLP Mercury**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		2/27/2017 15:54
Method Reference(s):	EPA 7470A EPA 1311				
Preparation Date:	2/27/2017				
Data File:	Hg170227C				

**TCLP Pesticides**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 1.00	ug/L	30		3/1/2017 19:01
Endrin	< 1.00	ug/L	20		3/1/2017 19:01
gamma-BHC (Lindane)	< 1.00	ug/L	400		3/1/2017 19:01
Heptachlor	< 1.00	ug/L	8		3/1/2017 19:01
Heptachlor Epoxide	< 1.00	ug/L	8		3/1/2017 19:01
Methoxychlor	< 1.00	ug/L	10000		3/1/2017 19:01
Toxaphene	< 10.0	ug/L	500		3/1/2017 19:01
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
Decachlorobiphenyl (1)	63.6	10 - 111		3/1/2017	19:01
Tetrachloro-m-xylene (1)	44.7	25.5 - 73		3/1/2017	19:01

Method Reference(s): EPA 8081B  
EPA 1311 / 3510C  
Preparation Date: 2/28/2017

**TCLP RCRA Metals (ICP)**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5		2/28/2017 21:05
Barium	0.645	mg/L	100		2/28/2017 21:05
Cadmium	< 0.0250	mg/L	1		2/28/2017 21:05
Chromium	< 0.0500	mg/L	5		2/28/2017 21:05
Lead	< 0.100	mg/L	5		2/28/2017 21:05
Selenium	< 0.100	mg/L	1		2/28/2017 21:05
Silver	< 0.0500	mg/L	5		2/28/2017 21:05

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** SED-2

**Lab Sample ID:** 170698-10

**Date Sampled:** 2/23/2017

**Matrix:** TCLP Extract

**Date Received:** 2/24/2017

**Method Reference(s):** EPA 6010C  
EPA 1311 / 3005A  
**Preparation Date:** 2/27/2017  
**Data File:** 022817b

**TCLP Volatile Organics**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		2/28/2017 02:49
1,2-Dichloroethane	< 20.0	ug/L	500		2/28/2017 02:49
2-Butanone	< 100	ug/L	200000		2/28/2017 02:49
Benzene	< 20.0	ug/L	500		2/28/2017 02:49
Carbon Tetrachloride	< 20.0	ug/L	500		2/28/2017 02:49
Chlorobenzene	< 20.0	ug/L	100000		2/28/2017 02:49
Chloroform	< 20.0	ug/L	6000		2/28/2017 02:49
Tetrachloroethene	< 20.0	ug/L	700		2/28/2017 02:49
Trichloroethene	< 20.0	ug/L	500		2/28/2017 02:49
Vinyl chloride	< 20.0	ug/L	200		2/28/2017 02:49
Surrogate	Percent Recovery		Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	96.7		81.2 - 120		2/28/2017 02:49
4-Bromofluorobenzene	88.9		82.4 - 112		2/28/2017 02:49
Pentafluorobenzene	97.7		90.2 - 112		2/28/2017 02:49
Toluene-D8	95.1		89.9 - 109		2/28/2017 02:49

**Method Reference(s):** EPA 8260C  
EPA 1311 / 5030C  
**Data File:** x39536.D



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** SED-3

**Lab Sample ID:** 170698-11

**Date Sampled:** 2/23/2017

**Matrix:** TCLP Extract

**Date Received:** 2/24/2017

**TCLP Semi-Volatile Organics**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		3/2/2017 11:16
2,4,5-Trichlorophenol	< 80.0	ug/L	400000		3/2/2017 11:16
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		3/2/2017 11:16
2,4-Dinitrotoluene	< 40.0	ug/L	130		3/2/2017 11:16
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		3/2/2017 11:16
Hexachlorobenzene	< 40.0	ug/L	130		3/2/2017 11:16
Hexachlorobutadiene	< 40.0	ug/L	500		3/2/2017 11:16
Hexachloroethane	< 40.0	ug/L	3000		3/2/2017 11:16
Nitrobenzene	< 40.0	ug/L	2000		3/2/2017 11:16
Pentachlorophenol	< 80.0	ug/L	100000		3/2/2017 11:16
Pyridine	< 40.0	ug/L	5000		3/2/2017 11:16

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	80.3	32.4 - 137		3/2/2017 11:16
2-Fluorobiphenyl	80.2	44.7 - 111		3/2/2017 11:16
2-Fluorophenol	72.1	12 - 101		3/2/2017 11:16
Nitrobenzene-d5	78.5	52 - 99.4		3/2/2017 11:16
Phenol-d5	65.1	10 - 103		3/2/2017 11:16
Terphenyl-d14	82.8	57.9 - 113		3/2/2017 11:16

**Method Reference(s):** EPA 8270D  
EPA 1311 / 3510C  
**Preparation Date:** 2/28/2017  
**Data File:** B17623.D

**TCLP Herbicides**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
2,4,5-TP (Silvex)	<0.05	mg/L	1		2/28/2017
2,4-D	<0.50	mg/L	10		2/28/2017

**Method Reference(s):** EPA 8151A  
EPA 1311  
**Subcontractor ELAP ID:** 11148



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** SED-3

**Lab Sample ID:** 170698-11

**Date Sampled:** 2/23/2017

**Matrix:** TCLP Extract

**Date Received:** 2/24/2017

**TCLP Mercury**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		2/27/2017 15:58
<b>Method Reference(s):</b>	EPA 7470A EPA 1311				
<b>Preparation Date:</b>	2/27/2017				
<b>Data File:</b>	Hg170227C				

**TCLP Pesticides**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 1.00	ug/L	30		3/1/2017 19:15
Endrin	< 1.00	ug/L	20		3/1/2017 19:15
gamma-BHC (Lindane)	< 1.00	ug/L	400		3/1/2017 19:15
Heptachlor	< 1.00	ug/L	8		3/1/2017 19:15
Heptachlor Epoxide	< 1.00	ug/L	8		3/1/2017 19:15
Methoxychlor	< 1.00	ug/L	10000		3/1/2017 19:15
Toxaphene	< 10.0	ug/L	500		3/1/2017 19:15
Surrogate	Percent Recovery		Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	64.3		10 - 111		3/1/2017 19:15
Tetrachloro-m-xylene (1)	46.5		25.5 - 73		3/1/2017 19:15

**Method Reference(s):** EPA 8081B  
EPA 1311 / 3510C  
**Preparation Date:** 2/28/2017

**TCLP RCRA Metals (ICP)**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5		2/28/2017 21:09
Barium	< 0.500	mg/L	100		2/28/2017 21:09
Cadmium	< 0.0250	mg/L	1		2/28/2017 21:09
Chromium	< 0.0500	mg/L	5		2/28/2017 21:09
Lead	< 0.100	mg/L	5		2/28/2017 21:09
Selenium	< 0.100	mg/L	1		2/28/2017 21:09
Silver	< 0.0500	mg/L	5		2/28/2017 21:09

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** SED-3

**Lab Sample ID:** 170698-11

**Date Sampled:** 2/23/2017

**Matrix:** TCLP Extract

**Date Received:** 2/24/2017

**Method Reference(s):** EPA 6010C  
EPA 1311 / 3005A  
**Preparation Date:** 2/27/2017  
**Data File:** 022817b

**TCLP Volatile Organics**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		2/28/2017 03:13
1,2-Dichloroethane	< 20.0	ug/L	500		2/28/2017 03:13
2-Butanone	< 100	ug/L	200000		2/28/2017 03:13
Benzene	< 20.0	ug/L	500		2/28/2017 03:13
Carbon Tetrachloride	< 20.0	ug/L	500		2/28/2017 03:13
Chlorobenzene	< 20.0	ug/L	100000		2/28/2017 03:13
Chloroform	< 20.0	ug/L	6000		2/28/2017 03:13
Tetrachloroethene	< 20.0	ug/L	700		2/28/2017 03:13
Trichloroethene	< 20.0	ug/L	500		2/28/2017 03:13
Vinyl chloride	< 20.0	ug/L	200		2/28/2017 03:13
Surrogate	Percent Recovery		Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	98.9		81.2 - 120		2/28/2017 03:13
4-Bromofluorobenzene	83.7		82.4 - 112		2/28/2017 03:13
Pentafluorobenzene	96.9		90.2 - 112		2/28/2017 03:13
Toluene-D8	95.1		89.9 - 109		2/28/2017 03:13

**Method Reference(s):** EPA 8260C  
EPA 1311 / 5030C  
**Data File:** x39537.D





## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### **Warranty.**

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### **Scope and Compensation.**

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### **Prices.**

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### **Limitations of Liability.**

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### **Hazard Disclosure.**

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### **Sample Handling.**

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### **Legal Responsibility.**

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### **Assignment.**

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### **Force Majeure.**

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### **Law.**

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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# CHAIN OF CUSTODY

1 of 3



PARADIGM  
INTERNATIONAL LABORATORY

REPORT TO:

INVOICE TO:

PROJECT REFERENCE  
**POLY BT**  
**ALBANY**

CLIENT: **Bergman Associates**  
ADDRESS: **280 E. Road St**  
CITY: **Rochester** STATE: **NY** ZIP: **14601**  
PHONE: **585 498 7778**

CLIENT: **Bergman Associates**  
ADDRESS: **←**  
CITY: **←** STATE: **←** ZIP: **←**  
PHONE: **←**

LAB PROJECT ID: **170698**  
Quotation #: **MS0201174**  
Email: **mbonardo@bergmanpc.com**  
**Sdenoe@bergmanpc.com**

REQUESTED ANALYSIS

ATTN: **Megan Burruso / Steve DeNio** ATTN: **Jane Arguette**  
Matrix Codes: **AO - Aqueous Liquid** **WA - Water** **DW - Drinking Water** **SO - Soil** **SD - Solid**  
**NQ - Non-Aqueous Liquid** **WG - Groundwater** **WW - Wastewater** **SL - Sludge** **PT - Paint** **WP - Wipe** **OL - Oil**  
**AR - Air**

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRADES	SAMPLE IDENTIFIER	MATRIX CODES	NO. OF SAMPLES	NO. OF ANALYSES	TESTS	REMARKS	PARADIGM LAB SAMPLE NUMBER
2/20/2017	1344	X		B-3 (0-2)	AO	1	1	TCL TCP-51 VOCs		01
2/20/2017	1419	X		B-3 (2-4)	AO	1	1	TCL BNE		02
2/22/2017	1300	X		B-7 (0-2)	AO	1	1	TAL Metals		03
2/22/2017	1306	X		B-7 (1-4)	AO	1	1	PEST		04
2/22/2017	1526	X		B-6 (0-2)	AO	1	1	PCB		05
2/22/2017	1530	X		B-6 (4-6)	AO	1	1	Total Cyanide		06
2/23/2017	0900	X		B-8 (0-2)	AO	1	1	TCLP metals		07
2/23/2017	0936	X		B-8 (6-8)	AO	1	1	TCLP SemiVol.		08
2/23/2017	0838	X		SED-1	AO	1	1	TCLP Herb		09
2/23/2017	1024	X		SED-2	AO	2	2	TCLP VOA		10

per usual GP 2/24/17

Turnaround Time

Availability contingent upon lab approval; additional fees may apply.

Report Supplements

Standard 5 day  **Per JD GP 2/24/17**

10 day

Rush 3 day

Rush 2 day

Rush 1 day

Other

None Required

Batch QC

Category A

Category B

Other

None Required

Basic EDD

NYSDEC EDD

Other EDD

Sampled By: **Megan Burruso** Date/Time: **2/23/2017 1710**

Relinquished By: **Megan Burruso** Date/Time: **2/23/2017 1710**

Received By: **AR** Date/Time: **2/24/17 14:16**

Received @ Lab By: **AR** Date/Time: **2/24/17 17:12**

Total Cost:

P.L.F.





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Chain of Custody Supplement

Client: Bergmann Associates  
 Lab Project ID: 170698

Completed by: Glenn Pezzulo  
 Date: 2/24/17

**Sample Condition Requirements**  
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> So 35	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Metals
Comments	<u>4°C iced</u>		
Sufficient Sample Quantity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		





179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

# CHAIN OF CUSTODY

Serial No: 03031715:18  
 10P1  
 L1705953 11148

REPORT TO: **Paradigm Environmental** INVOICE TO: **Same**

COMPANY: **Paradigm Environmental** ADDRESS: **179 Lake Avenue** CITY: **Rochester** STATE: **NY** ZIP: **14608**

COMPANY: **Same** ADDRESS: **Same** CITY: **Same** STATE: **Same** ZIP: **Same**

PHONE: **716-233-1111** FAX: **716-233-1112**

ATTN: **Reporting** ATTN: **Accounts Payable**

COMMENTS: **Please email results to reporting@paradigmenv.com**

LAB PROJECT #: \_\_\_\_\_ CLIENT PROJECT #: \_\_\_\_\_

TURNAROUND TIME (WORKING DAYS):  1  2  3  4  5

STD  OTHER

Date Due: **3/6/17**

## REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRADES	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAMINANTS	REMARKS	PARADIGM LAB SAMPLE NUMBER
12/23/17	08:30			170698-09	Soil	X TLLP Herbicides		
2	10:24					X		
3	11:10					X		
4								
5								
6								
7								
8								
9								
10								

\*\*\*LAB USE ONLY BELOW THIS LINE\*\*\*

Sample Condition: Per NELAC/EIAP 210241242/243/244

Receipt Parameter: \_\_\_\_\_

Container Type: Y  N

Comments: \_\_\_\_\_

Preservation: Y  N

Comments: \_\_\_\_\_

Holding Time: Y  N

Comments: \_\_\_\_\_

Temperature: **2.8°C** Per Sub Lab Y  N

Comments: \_\_\_\_\_

Client

Sampled By: **[Signature]** Date/Time: **2/24/17** 16:00

Relinquished By: **[Signature]** Date/Time: **2/24/17** 16:50

Received By: **[Signature]** Date/Time: **2/24/17** 23:40

Received @ Lab By: **[Signature]** Date/Time: \_\_\_\_\_

Total Cost:

P.L.F.





**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

*Analytical Report For*  
**Bergmann Associates**

*For Lab Project ID*

**170747**

*Referencing*

**Port Of Albany**

*Prepared*

**Wednesday, March 08, 2017**

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in black ink, consisting of several overlapping, slanted strokes, positioned above a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

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*Report Prepared Wednesday, March 08, 2017*

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-5 (0-2)

**Lab Sample ID:** 170747-01

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0395	mg/Kg		3/4/2017 13:42

Method Reference(s): EPA 7471B  
Preparation Date: 3/3/2017  
Data File: Hg170304B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	18000	mg/Kg		3/4/2017 18:34
Antimony	< 3.54	mg/Kg		3/7/2017 17:58
Arsenic	26.8	mg/Kg		3/4/2017 18:34
Barium	399	mg/Kg		3/4/2017 18:34
Beryllium	1.36	mg/Kg		3/4/2017 18:34
Cadmium	1.50	mg/Kg		3/4/2017 18:34
Calcium	6020	mg/Kg		3/4/2017 18:34
Chromium	19.0	mg/Kg		3/4/2017 18:34
Cobalt	10.5	mg/Kg		3/4/2017 18:34
Copper	26.5	mg/Kg		3/4/2017 18:34
Iron	78900	mg/Kg		3/7/2017 17:54
Lead	7.45	mg/Kg		3/4/2017 18:34
Magnesium	1110	mg/Kg		3/4/2017 18:34
Manganese	105	mg/Kg		3/4/2017 18:34
Nickel	19.6	mg/Kg		3/4/2017 18:34
Potassium	1610	mg/Kg		3/4/2017 18:34
Selenium	< 0.591	mg/Kg		3/7/2017 17:58
Silver	8.95	mg/Kg		3/4/2017 18:34
Sodium	677	mg/Kg		3/4/2017 18:34
Thallium	< 1.48	mg/Kg		3/4/2017 18:34
Vanadium	36.8	mg/Kg		3/4/2017 18:34
Zinc	14.6	mg/Kg		3/4/2017 18:34

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-5 (0-2)

**Lab Sample ID:** 170747-01

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 3/3/2017  
**Data File:** 030417a

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0360	mg/Kg		3/3/2017 18:34
PCB-1221	< 0.0360	mg/Kg		3/3/2017 18:34
PCB-1232	< 0.0360	mg/Kg		3/3/2017 18:34
PCB-1242	< 0.0360	mg/Kg		3/3/2017 18:34
PCB-1248	< 0.0360	mg/Kg		3/3/2017 18:34
PCB-1254	< 0.0360	mg/Kg		3/3/2017 18:34
PCB-1260	< 0.0360	mg/Kg		3/3/2017 18:34
PCB-1262	< 0.0360	mg/Kg		3/3/2017 18:34
PCB-1268	< 0.0360	mg/Kg		3/3/2017 18:34

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	74.7	10 - 142		3/3/2017 18:34
Tetrachloro-m-xylene	46.8	10 - 136		3/3/2017 18:34

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 3/3/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.60	ug/Kg		3/4/2017 14:22
4,4-DDE	< 3.60	ug/Kg		3/4/2017 14:22
4,4-DDT	< 3.60	ug/Kg		3/4/2017 14:22
Aldrin	< 3.60	ug/Kg		3/4/2017 14:22
alpha-BHC	< 3.60	ug/Kg		3/4/2017 14:22
beta-BHC	< 3.60	ug/Kg		3/4/2017 14:22
cis-Chlordane	< 3.60	ug/Kg		3/4/2017 14:22
delta-BHC	< 3.60	ug/Kg		3/4/2017 14:22
Dieldrin	< 3.60	ug/Kg		3/4/2017 14:22

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-5 (0-2)

**Lab Sample ID:** 170747-01

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Endosulfan I	< 3.60	ug/Kg		3/4/2017 14:22
Endosulfan II	< 3.60	ug/Kg		3/4/2017 14:22
Endosulfan Sulfate	< 3.60	ug/Kg		3/4/2017 14:22
Endrin	< 3.60	ug/Kg		3/4/2017 14:22
Endrin Aldehyde	< 3.60	ug/Kg		3/4/2017 14:22
Endrin Ketone	< 3.60	ug/Kg		3/4/2017 14:22
gamma-BHC (Lindane)	< 3.60	ug/Kg		3/4/2017 14:22
Heptachlor	< 3.60	ug/Kg		3/4/2017 14:22
Heptachlor Epoxide	<b>8.29</b>	ug/Kg	P	3/4/2017 14:22
Methoxychlor	< 3.60	ug/Kg		3/4/2017 14:22
Toxaphene	< 36.0	ug/Kg		3/4/2017 14:22
trans-Chlordane	< 3.60	ug/Kg		3/4/2017 14:22

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	<b>53.3</b>	10 - 152		3/4/2017 14:22
Tetrachloro-m-xylene (1)	<b>50.8</b>	10 - 91.1		3/4/2017 14:22

**Method Reference(s):** EPA 8081B  
EPA 3550C

**Preparation Date:** 3/3/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 360	ug/Kg		3/6/2017 12:19
1,2,4,5-Tetrachlorobenzene	< 360	ug/Kg		3/6/2017 12:19
1,2,4-Trichlorobenzene	< 360	ug/Kg		3/6/2017 12:19
1,2-Dichlorobenzene	< 360	ug/Kg		3/6/2017 12:19
1,3-Dichlorobenzene	< 360	ug/Kg		3/6/2017 12:19
1,4-Dichlorobenzene	< 360	ug/Kg		3/6/2017 12:19
2,2-Oxybis (1-chloropropane)	< 360	ug/Kg		3/6/2017 12:19
2,4-Dinitrotoluene	< 360	ug/Kg		3/6/2017 12:19
2,6-Dinitrotoluene	< 360	ug/Kg		3/6/2017 12:19
2-Chloronaphthalene	< 360	ug/Kg		3/6/2017 12:19
2-Methylnaphthalene	< 360	ug/Kg		3/6/2017 12:19
2-Nitroaniline	< 720	ug/Kg		3/6/2017 12:19

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-5 (0-2)		
<b>Lab Sample ID:</b>	170747-01	<b>Date Sampled:</b>	2/27/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	3/1/2017
3,3'-Dichlorobenzidine	< 360	ug/Kg	3/6/2017 12:19
3-Nitroaniline	< 720	ug/Kg	3/6/2017 12:19
4-Bromophenyl phenyl ether	< 360	ug/Kg	3/6/2017 12:19
4-Chloroaniline	< 360	ug/Kg	3/6/2017 12:19
4-Chlorophenyl phenyl ether	< 360	ug/Kg	3/6/2017 12:19
4-Nitroaniline	< 720	ug/Kg	3/6/2017 12:19
Acenaphthene	< 360	ug/Kg	3/6/2017 12:19
Acenaphthylene	< 360	ug/Kg	3/6/2017 12:19
Acetophenone	< 360	ug/Kg	3/6/2017 12:19
Anthracene	< 360	ug/Kg	3/6/2017 12:19
Atrazine	< 360	ug/Kg	3/6/2017 12:19
Benzaldehyde	< 360	ug/Kg	3/6/2017 12:19
Benzo (a) anthracene	< 360	ug/Kg	3/6/2017 12:19
Benzo (a) pyrene	< 360	ug/Kg	3/6/2017 12:19
Benzo (b) fluoranthene	< 360	ug/Kg	3/6/2017 12:19
Benzo (g,h,i) perylene	< 360	ug/Kg	3/6/2017 12:19
Benzo (k) fluoranthene	< 360	ug/Kg	3/6/2017 12:19
Bis (2-chloroethoxy) methane	< 360	ug/Kg	3/6/2017 12:19
Bis (2-chloroethyl) ether	< 360	ug/Kg	3/6/2017 12:19
Bis (2-ethylhexyl) phthalate	<b>491</b>	ug/Kg	3/6/2017 12:19
Butylbenzylphthalate	< 360	ug/Kg	3/6/2017 12:19
Caprolactam	< 360	ug/Kg	3/6/2017 12:19
Carbazole	< 360	ug/Kg	3/6/2017 12:19
Chrysene	< 360	ug/Kg	3/6/2017 12:19
Dibenz (a,h) anthracene	< 360	ug/Kg	3/6/2017 12:19
Dibenzofuran	< 360	ug/Kg	3/6/2017 12:19
Diethyl phthalate	< 360	ug/Kg	3/6/2017 12:19
Dimethyl phthalate	< 720	ug/Kg	3/6/2017 12:19
Di-n-butyl phthalate	< 360	ug/Kg	3/6/2017 12:19
Di-n-octylphthalate	< 360	ug/Kg	3/6/2017 12:19
Fluoranthene	< 360	ug/Kg	3/6/2017 12:19
Fluorene	< 360	ug/Kg	3/6/2017 12:19

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-5 (0-2)

**Lab Sample ID:** 170747-01

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Hexachlorobenzene	< 360	ug/Kg	3/6/2017 12:19
Hexachlorobutadiene	< 360	ug/Kg	3/6/2017 12:19
Hexachlorocyclopentadiene	< 360	ug/Kg	3/6/2017 12:19
Hexachloroethane	< 360	ug/Kg	3/6/2017 12:19
Indeno (1,2,3-cd) pyrene	< 360	ug/Kg	3/6/2017 12:19
Isophorone	< 360	ug/Kg	3/6/2017 12:19
Naphthalene	< 360	ug/Kg	3/6/2017 12:19
Nitrobenzene	< 360	ug/Kg	3/6/2017 12:19
N-Nitroso-di-n-propylamine	< 360	ug/Kg	3/6/2017 12:19
N-Nitrosodiphenylamine	< 360	ug/Kg	3/6/2017 12:19
Phenanthrene	< 360	ug/Kg	3/6/2017 12:19
Pyrene	< 360	ug/Kg	3/6/2017 12:19

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	39.1	33.7 - 113		3/6/2017 12:19
Nitrobenzene-d5	34.1	33.3 - 91.5		3/6/2017 12:19
Terphenyl-d14	63.0	66.1 - 113	*	3/6/2017 12:19

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 3/3/2017  
**Data File:** B17801.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 8.32	ug/Kg		3/6/2017 19:14
1,1,2,2-Tetrachloroethane	< 8.32	ug/Kg		3/6/2017 19:14
1,1,2-Trichloroethane	< 8.32	ug/Kg		3/6/2017 19:14
1,1-Dichloroethane	< 8.32	ug/Kg		3/6/2017 19:14
1,1-Dichloroethene	< 8.32	ug/Kg		3/6/2017 19:14
1,2,3-Trichlorobenzene	< 20.8	ug/Kg		3/6/2017 19:14
1,2,4-Trichlorobenzene	< 20.8	ug/Kg		3/6/2017 19:14
1,2,4-Trimethylbenzene	< 8.32	ug/Kg		3/6/2017 19:14
1,2-Dibromo-3-Chloropropane	< 41.6	ug/Kg		3/6/2017 19:14
1,2-Dibromoethane	< 8.32	ug/Kg		3/6/2017 19:14

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-5 (0-2)  
**Lab Sample ID:** 170747-01 **Date Sampled:** 2/27/2017  
**Matrix:** Soil **Date Received:** 3/1/2017

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1,2-Dichlorobenzene	< 8.32	ug/Kg	3/6/2017 19:14
1,2-Dichloroethane	< 8.32	ug/Kg	3/6/2017 19:14
1,2-Dichloropropane	< 8.32	ug/Kg	3/6/2017 19:14
1,3,5-Trimethylbenzene	< 8.32	ug/Kg	3/6/2017 19:14
1,3-Dichlorobenzene	< 8.32	ug/Kg	3/6/2017 19:14
1,4-Dichlorobenzene	< 8.32	ug/Kg	3/6/2017 19:14
1,4-dioxane	< 83.2	ug/Kg	3/6/2017 19:14
2-Butanone	< 41.6	ug/Kg	3/6/2017 19:14
2-Hexanone	< 20.8	ug/Kg	3/6/2017 19:14
4-Methyl-2-pentanone	< 20.8	ug/Kg	3/6/2017 19:14
Acetone	< 41.6	ug/Kg	3/6/2017 19:14
Benzene	< 8.32	ug/Kg	3/6/2017 19:14
Bromochloromethane	< 20.8	ug/Kg	3/6/2017 19:14
Bromodichloromethane	< 8.32	ug/Kg	3/6/2017 19:14
Bromoform	< 20.8	ug/Kg	3/6/2017 19:14
Bromomethane	< 8.32	ug/Kg	3/6/2017 19:14
Carbon disulfide	< 8.32	ug/Kg	3/6/2017 19:14
Carbon Tetrachloride	< 8.32	ug/Kg	3/6/2017 19:14
Chlorobenzene	< 8.32	ug/Kg	3/6/2017 19:14
Chloroethane	< 8.32	ug/Kg	3/6/2017 19:14
Chloroform	< 8.32	ug/Kg	3/6/2017 19:14
Chloromethane	< 8.32	ug/Kg	3/6/2017 19:14
cis-1,2-Dichloroethene	< 8.32	ug/Kg	3/6/2017 19:14
cis-1,3-Dichloropropene	< 8.32	ug/Kg	3/6/2017 19:14
Cyclohexane	< 41.6	ug/Kg	3/6/2017 19:14
Dibromochloromethane	< 8.32	ug/Kg	3/6/2017 19:14
Dichlorodifluoromethane	< 8.32	ug/Kg	3/6/2017 19:14
Ethylbenzene	< 8.32	ug/Kg	3/6/2017 19:14
Freon 113	< 8.32	ug/Kg	3/6/2017 19:14
Isopropylbenzene	< 8.32	ug/Kg	3/6/2017 19:14
m,p-Xylene	<b>21.8</b>	ug/Kg	3/6/2017 19:14
Methyl acetate	< 8.32	ug/Kg	3/6/2017 19:14

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-5 (0-2)

**Lab Sample ID:** 170747-01

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Methyl tert-butyl Ether	< 8.32	ug/Kg	3/6/2017	19:14
Methylcyclohexane	< 8.32	ug/Kg	3/6/2017	19:14
Methylene chloride	< 20.8	ug/Kg	3/6/2017	19:14
Naphthalene	< 20.8	ug/Kg	3/6/2017	19:14
n-Butylbenzene	< 8.32	ug/Kg	3/6/2017	19:14
n-Propylbenzene	< 8.32	ug/Kg	3/6/2017	19:14
o-Xylene	<b>8.43</b>	ug/Kg	3/6/2017	19:14
p-Isopropyltoluene	< 8.32	ug/Kg	3/6/2017	19:14
sec-Butylbenzene	< 8.32	ug/Kg	3/6/2017	19:14
Styrene	< 20.8	ug/Kg	3/6/2017	19:14
tert-Butylbenzene	< 8.32	ug/Kg	3/6/2017	19:14
Tetrachloroethene	< 8.32	ug/Kg	3/6/2017	19:14
Toluene	<b>28.2</b>	ug/Kg	3/6/2017	19:14
trans-1,2-Dichloroethene	< 8.32	ug/Kg	3/6/2017	19:14
trans-1,3-Dichloropropene	< 8.32	ug/Kg	3/6/2017	19:14
Trichloroethene	< 8.32	ug/Kg	3/6/2017	19:14
Trichlorofluoromethane	< 8.32	ug/Kg	3/6/2017	19:14
Vinyl chloride	< 8.32	ug/Kg	3/6/2017	19:14

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>129</b>	82.1 - 123	*	3/6/2017 19:14
4-Bromofluorobenzene	<b>54.4</b>	84.6 - 112	*	3/6/2017 19:14
Pentafluorobenzene	<b>95.9</b>	91.4 - 111		3/6/2017 19:14
Toluene-D8	<b>86.1</b>	90.3 - 108	*	3/6/2017 19:14

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39809.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.595	mg/Kg		3/3/2017 13:32

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**Client:** **Bergmann Associates**

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-5 (0-2)

**Lab Sample ID:** 170747-01

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 3/3/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-5 (4-6)

**Lab Sample ID:** 170747-02

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0551	mg/Kg		3/4/2017 13:45

Method Reference(s): EPA 7471B  
Preparation Date: 3/3/2017  
Data File: Hg170304B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	15400	mg/Kg		3/4/2017 18:38
Antimony	< 3.58	mg/Kg		3/7/2017 18:06
Arsenic	16.2	mg/Kg		3/4/2017 18:38
Barium	280	mg/Kg		3/4/2017 18:38
Beryllium	1.17	mg/Kg		3/4/2017 18:38
Cadmium	1.02	mg/Kg		3/4/2017 18:38
Calcium	7480	mg/Kg		3/4/2017 18:38
Chromium	14.7	mg/Kg		3/4/2017 18:38
Cobalt	8.51	mg/Kg		3/4/2017 18:38
Copper	24.4	mg/Kg		3/4/2017 18:38
Iron	57100	mg/Kg		3/7/2017 18:02
Lead	8.72	mg/Kg		3/4/2017 18:38
Magnesium	1430	mg/Kg		3/4/2017 18:38
Manganese	137	mg/Kg		3/4/2017 18:38
Nickel	21.7	mg/Kg		3/4/2017 18:38
Potassium	1460	mg/Kg		3/4/2017 18:38
Selenium	4.94	mg/Kg		3/4/2017 18:38
Silver	6.18	mg/Kg		3/4/2017 18:38
Sodium	569	mg/Kg		3/4/2017 18:38
Thallium	< 1.49	mg/Kg		3/4/2017 18:38
Vanadium	41.4	mg/Kg		3/4/2017 18:38
Zinc	24.4	mg/Kg		3/4/2017 18:38

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-5 (4-6)

**Lab Sample ID:** 170747-02

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 3/3/2017  
**Data File:** 030417a

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0358	mg/Kg		3/3/2017 18:56
PCB-1221	< 0.0358	mg/Kg		3/3/2017 18:56
PCB-1232	< 0.0358	mg/Kg		3/3/2017 18:56
PCB-1242	< 0.0358	mg/Kg		3/3/2017 18:56
PCB-1248	< 0.0358	mg/Kg		3/3/2017 18:56
PCB-1254	< 0.0358	mg/Kg		3/3/2017 18:56
PCB-1260	< 0.0358	mg/Kg		3/3/2017 18:56
PCB-1262	< 0.0358	mg/Kg		3/3/2017 18:56
PCB-1268	< 0.0358	mg/Kg		3/3/2017 18:56

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	80.8	10 - 142		3/3/2017 18:56
Tetrachloro-m-xylene	40.1	10 - 136		3/3/2017 18:56

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 3/3/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.58	ug/Kg		3/4/2017 14:37
4,4-DDE	< 3.58	ug/Kg		3/4/2017 14:37
4,4-DDT	< 3.58	ug/Kg		3/4/2017 14:37
Aldrin	< 3.58	ug/Kg		3/4/2017 14:37
alpha-BHC	< 3.58	ug/Kg		3/4/2017 14:37
beta-BHC	< 3.58	ug/Kg		3/4/2017 14:37
cis-Chlordane	< 3.58	ug/Kg		3/4/2017 14:37
delta-BHC	< 3.58	ug/Kg		3/4/2017 14:37
Dieldrin	< 3.58	ug/Kg		3/4/2017 14:37

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-5 (4-6)

**Lab Sample ID:** 170747-02

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Endosulfan I	< 3.58	ug/Kg	3/4/2017	14:37
Endosulfan II	< 3.58	ug/Kg	3/4/2017	14:37
Endosulfan Sulfate	< 3.58	ug/Kg	3/4/2017	14:37
Endrin	< 3.58	ug/Kg	3/4/2017	14:37
Endrin Aldehyde	< 3.58	ug/Kg	3/4/2017	14:37
Endrin Ketone	< 3.58	ug/Kg	3/4/2017	14:37
gamma-BHC (Lindane)	< 3.58	ug/Kg	3/4/2017	14:37
Heptachlor	< 3.58	ug/Kg	3/4/2017	14:37
Heptachlor Epoxide	< 3.58	ug/Kg	3/4/2017	14:37
Methoxychlor	< 3.58	ug/Kg	3/4/2017	14:37
Toxaphene	< 35.8	ug/Kg	3/4/2017	14:37
trans-Chlordane	< 3.58	ug/Kg	3/4/2017	14:37

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	75.1	10 - 152		3/4/2017 14:37
Tetrachloro-m-xylene (1)	39.7	10 - 91.1		3/4/2017 14:37

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 3/3/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 363	ug/Kg		3/6/2017 12:48
1,2,4,5-Tetrachlorobenzene	< 363	ug/Kg		3/6/2017 12:48
1,2,4-Trichlorobenzene	< 363	ug/Kg		3/6/2017 12:48
1,2-Dichlorobenzene	< 363	ug/Kg		3/6/2017 12:48
1,3-Dichlorobenzene	< 363	ug/Kg		3/6/2017 12:48
1,4-Dichlorobenzene	< 363	ug/Kg		3/6/2017 12:48
2,2-Oxybis (1-chloropropane)	< 363	ug/Kg		3/6/2017 12:48
2,4-Dinitrotoluene	< 363	ug/Kg		3/6/2017 12:48
2,6-Dinitrotoluene	< 363	ug/Kg		3/6/2017 12:48
2-Chloronaphthalene	< 363	ug/Kg		3/6/2017 12:48
2-Methylnaphthalene	< 363	ug/Kg		3/6/2017 12:48
2-Nitroaniline	< 725	ug/Kg		3/6/2017 12:48

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-5 (4-6)			
<b>Lab Sample ID:</b>	170747-02	<b>Date Sampled:</b>	2/27/2017	
<b>Matrix:</b>	Soil	<b>Date Received:</b>	3/1/2017	
3,3'-Dichlorobenzidine	< 363	ug/Kg	3/6/2017	12:48
3-Nitroaniline	< 725	ug/Kg	3/6/2017	12:48
4-Bromophenyl phenyl ether	< 363	ug/Kg	3/6/2017	12:48
4-Chloroaniline	< 363	ug/Kg	3/6/2017	12:48
4-Chlorophenyl phenyl ether	< 363	ug/Kg	3/6/2017	12:48
4-Nitroaniline	< 725	ug/Kg	3/6/2017	12:48
Acenaphthene	< 363	ug/Kg	3/6/2017	12:48
Acenaphthylene	< 363	ug/Kg	3/6/2017	12:48
Acetophenone	< 363	ug/Kg	3/6/2017	12:48
Anthracene	< 363	ug/Kg	3/6/2017	12:48
Atrazine	< 363	ug/Kg	3/6/2017	12:48
Benzaldehyde	< 363	ug/Kg	3/6/2017	12:48
Benzo (a) anthracene	< 363	ug/Kg	3/6/2017	12:48
Benzo (a) pyrene	< 363	ug/Kg	3/6/2017	12:48
Benzo (b) fluoranthene	< 363	ug/Kg	3/6/2017	12:48
Benzo (g,h,i) perylene	< 363	ug/Kg	3/6/2017	12:48
Benzo (k) fluoranthene	< 363	ug/Kg	3/6/2017	12:48
Bis (2-chloroethoxy) methane	< 363	ug/Kg	3/6/2017	12:48
Bis (2-chloroethyl) ether	< 363	ug/Kg	3/6/2017	12:48
Bis (2-ethylhexyl) phthalate	< 363	ug/Kg	3/6/2017	12:48
Butylbenzylphthalate	< 363	ug/Kg	3/6/2017	12:48
Caprolactam	< 363	ug/Kg	3/6/2017	12:48
Carbazole	< 363	ug/Kg	3/6/2017	12:48
Chrysene	< 363	ug/Kg	3/6/2017	12:48
Dibenz (a,h) anthracene	< 363	ug/Kg	3/6/2017	12:48
Dibenzofuran	< 363	ug/Kg	3/6/2017	12:48
Diethyl phthalate	< 363	ug/Kg	3/6/2017	12:48
Dimethyl phthalate	< 725	ug/Kg	3/6/2017	12:48
Di-n-butyl phthalate	< 363	ug/Kg	3/6/2017	12:48
Di-n-octylphthalate	< 363	ug/Kg	3/6/2017	12:48
Fluoranthene	< 363	ug/Kg	3/6/2017	12:48
Fluorene	< 363	ug/Kg	3/6/2017	12:48

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-5 (4-6)

**Lab Sample ID:** 170747-02

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Hexachlorobenzene	< 363	ug/Kg	3/6/2017 12:48
Hexachlorobutadiene	< 363	ug/Kg	3/6/2017 12:48
Hexachlorocyclopentadiene	< 363	ug/Kg	3/6/2017 12:48
Hexachloroethane	< 363	ug/Kg	3/6/2017 12:48
Indeno (1,2,3-cd) pyrene	< 363	ug/Kg	3/6/2017 12:48
Isophorone	< 363	ug/Kg	3/6/2017 12:48
Naphthalene	< 363	ug/Kg	3/6/2017 12:48
Nitrobenzene	< 363	ug/Kg	3/6/2017 12:48
N-Nitroso-di-n-propylamine	< 363	ug/Kg	3/6/2017 12:48
N-Nitrosodiphenylamine	< 363	ug/Kg	3/6/2017 12:48
Phenanthrene	< 363	ug/Kg	3/6/2017 12:48
Pyrene	< 363	ug/Kg	3/6/2017 12:48

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	56.3	33.7 - 113		3/6/2017 12:48
Nitrobenzene-d5	50.4	33.3 - 91.5		3/6/2017 12:48
Terphenyl-d14	76.1	66.1 - 113		3/6/2017 12:48

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 3/3/2017  
**Data File:** B17802.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 10.7	ug/Kg		3/6/2017 20:25
1,1,2,2-Tetrachloroethane	< 10.7	ug/Kg		3/6/2017 20:25
1,1,2-Trichloroethane	< 10.7	ug/Kg		3/6/2017 20:25
1,1-Dichloroethane	< 10.7	ug/Kg		3/6/2017 20:25
1,1-Dichloroethene	< 10.7	ug/Kg		3/6/2017 20:25
1,2,3-Trichlorobenzene	< 26.8	ug/Kg		3/6/2017 20:25
1,2,4-Trichlorobenzene	< 26.8	ug/Kg		3/6/2017 20:25
1,2,4-Trimethylbenzene	< 10.7	ug/Kg		3/6/2017 20:25
1,2-Dibromo-3-Chloropropane	< 53.6	ug/Kg		3/6/2017 20:25
1,2-Dibromoethane	< 10.7	ug/Kg		3/6/2017 20:25

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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<b>Sample Identifier:</b>	B-5 (4-6)		
<b>Lab Sample ID:</b>	170747-02	<b>Date Sampled:</b>	2/27/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	3/1/2017

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1,2-Dichlorobenzene	< 10.7	ug/Kg	3/6/2017 20:25
1,2-Dichloroethane	< 10.7	ug/Kg	3/6/2017 20:25
1,2-Dichloropropane	< 10.7	ug/Kg	3/6/2017 20:25
1,3,5-Trimethylbenzene	< 10.7	ug/Kg	3/6/2017 20:25
1,3-Dichlorobenzene	< 10.7	ug/Kg	3/6/2017 20:25
1,4-Dichlorobenzene	< 10.7	ug/Kg	3/6/2017 20:25
1,4-dioxane	< 10.7	ug/Kg	3/6/2017 20:25
2-Butanone	< 53.6	ug/Kg	3/6/2017 20:25
2-Hexanone	< 26.8	ug/Kg	3/6/2017 20:25
4-Methyl-2-pentanone	< 26.8	ug/Kg	3/6/2017 20:25
Acetone	< 53.6	ug/Kg	3/6/2017 20:25
Benzene	< 10.7	ug/Kg	3/6/2017 20:25
Bromochloromethane	< 26.8	ug/Kg	3/6/2017 20:25
Bromodichloromethane	< 10.7	ug/Kg	3/6/2017 20:25
Bromoform	< 26.8	ug/Kg	3/6/2017 20:25
Bromomethane	< 10.7	ug/Kg	3/6/2017 20:25
Carbon disulfide	< 10.7	ug/Kg	3/6/2017 20:25
Carbon Tetrachloride	< 10.7	ug/Kg	3/6/2017 20:25
Chlorobenzene	< 10.7	ug/Kg	3/6/2017 20:25
Chloroethane	< 10.7	ug/Kg	3/6/2017 20:25
Chloroform	< 10.7	ug/Kg	3/6/2017 20:25
Chloromethane	< 10.7	ug/Kg	3/6/2017 20:25
cis-1,2-Dichloroethene	< 10.7	ug/Kg	3/6/2017 20:25
cis-1,3-Dichloropropene	< 10.7	ug/Kg	3/6/2017 20:25
Cyclohexane	< 53.6	ug/Kg	3/6/2017 20:25
Dibromochloromethane	< 10.7	ug/Kg	3/6/2017 20:25
Dichlorodifluoromethane	< 10.7	ug/Kg	3/6/2017 20:25
Ethylbenzene	< 10.7	ug/Kg	3/6/2017 20:25
Freon 113	< 10.7	ug/Kg	3/6/2017 20:25
Isopropylbenzene	< 10.7	ug/Kg	3/6/2017 20:25
m,p-Xylene	< 10.7	ug/Kg	3/6/2017 20:25
Methyl acetate	< 10.7	ug/Kg	3/6/2017 20:25

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-5 (4-6)

**Lab Sample ID:** 170747-02

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Methyl tert-butyl Ether	< 10.7	ug/Kg	3/6/2017 20:25
Methylcyclohexane	< 10.7	ug/Kg	3/6/2017 20:25
Methylene chloride	< 26.8	ug/Kg	3/6/2017 20:25
Naphthalene	< 26.8	ug/Kg	3/6/2017 20:25
n-Butylbenzene	< 10.7	ug/Kg	3/6/2017 20:25
n-Propylbenzene	< 10.7	ug/Kg	3/6/2017 20:25
o-Xylene	< 10.7	ug/Kg	3/6/2017 20:25
p-Isopropyltoluene	< 10.7	ug/Kg	3/6/2017 20:25
sec-Butylbenzene	< 10.7	ug/Kg	3/6/2017 20:25
Styrene	< 26.8	ug/Kg	3/6/2017 20:25
tert-Butylbenzene	< 10.7	ug/Kg	3/6/2017 20:25
Tetrachloroethene	< 10.7	ug/Kg	3/6/2017 20:25
Toluene	< 10.7	ug/Kg	3/6/2017 20:25
trans-1,2-Dichloroethene	< 10.7	ug/Kg	3/6/2017 20:25
trans-1,3-Dichloropropene	< 10.7	ug/Kg	3/6/2017 20:25
Trichloroethene	< 10.7	ug/Kg	3/6/2017 20:25
Trichlorofluoromethane	< 10.7	ug/Kg	3/6/2017 20:25
Vinyl chloride	< 10.7	ug/Kg	3/6/2017 20:25

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>118</b>	82.1 - 123		3/6/2017 20:25
4-Bromofluorobenzene	<b>59.0</b>	84.6 - 112	*	3/6/2017 20:25
Pentafluorobenzene	<b>97.6</b>	91.4 - 111		3/6/2017 20:25
Toluene-D8	<b>89.4</b>	90.3 - 108	*	3/6/2017 20:25

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39812.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.496	mg/Kg		3/3/2017 13:32

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-5 (4-6)

**Lab Sample ID:** 170747-02

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 3/3/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-2 (0-2)

**Lab Sample ID:** 170747-03

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.140	mg/Kg		3/4/2017 13:49

Method Reference(s): EPA 7471B  
Preparation Date: 3/3/2017  
Data File: Hg170304B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	12400	mg/Kg		3/4/2017 18:42
Antimony	< 4.49	mg/Kg		3/7/2017 18:10
Arsenic	44.7	mg/Kg		3/4/2017 18:42
Barium	383	mg/Kg		3/4/2017 18:42
Beryllium	1.81	mg/Kg		3/4/2017 18:42
Cadmium	1.01	mg/Kg		3/4/2017 18:42
Calcium	6590	mg/Kg		3/4/2017 18:42
Chromium	20.3	mg/Kg		3/4/2017 18:42
Cobalt	9.39	mg/Kg		3/4/2017 18:42
Copper	24.0	mg/Kg		3/4/2017 18:42
Iron	32200	mg/Kg		3/4/2017 18:42
Lead	9.76	mg/Kg		3/4/2017 18:42
Magnesium	1350	mg/Kg		3/4/2017 18:42
Manganese	82.4	mg/Kg		3/4/2017 18:42
Nickel	18.3	mg/Kg		3/4/2017 18:42
Potassium	1230	mg/Kg		3/4/2017 18:42
Selenium	3.74	mg/Kg		3/4/2017 18:42
Silver	3.98	mg/Kg		3/4/2017 18:42
Sodium	521	mg/Kg		3/4/2017 18:42
Thallium	< 1.87	mg/Kg		3/4/2017 18:42
Vanadium	39.9	mg/Kg		3/4/2017 18:42
Zinc	27.0	mg/Kg		3/4/2017 18:42

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-2 (0-2)

**Lab Sample ID:** 170747-03

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 3/3/2017  
**Data File:** 030417a

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0481	mg/Kg		3/3/2017 19:18
PCB-1221	< 0.0481	mg/Kg		3/3/2017 19:18
PCB-1232	< 0.0481	mg/Kg		3/3/2017 19:18
PCB-1242	< 0.0481	mg/Kg		3/3/2017 19:18
PCB-1248	< 0.0481	mg/Kg		3/3/2017 19:18
PCB-1254	< 0.0481	mg/Kg		3/3/2017 19:18
PCB-1260	< 0.0481	mg/Kg		3/3/2017 19:18
PCB-1262	< 0.0481	mg/Kg		3/3/2017 19:18
PCB-1268	< 0.0481	mg/Kg		3/3/2017 19:18

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	80.4	10 - 142		3/3/2017 19:18
Tetrachloro-m-xylene	48.2	10 - 136		3/3/2017 19:18

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 3/3/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 4.81	ug/Kg		3/4/2017 14:51
4,4-DDE	< 4.81	ug/Kg		3/4/2017 14:51
4,4-DDT	< 4.81	ug/Kg		3/4/2017 14:51
Aldrin	< 4.81	ug/Kg		3/4/2017 14:51
alpha-BHC	< 4.81	ug/Kg		3/4/2017 14:51
beta-BHC	< 4.81	ug/Kg		3/4/2017 14:51
cis-Chlordane	< 4.81	ug/Kg		3/4/2017 14:51
delta-BHC	< 4.81	ug/Kg		3/4/2017 14:51
Dieldrin	< 4.81	ug/Kg		3/4/2017 14:51

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-2 (0-2)

**Lab Sample ID:** 170747-03

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Endosulfan I	< 4.81	ug/Kg	3/4/2017	14:51
Endosulfan II	< 4.81	ug/Kg	3/4/2017	14:51
Endosulfan Sulfate	< 4.81	ug/Kg	3/4/2017	14:51
Endrin	< 4.81	ug/Kg	3/4/2017	14:51
Endrin Aldehyde	< 4.81	ug/Kg	3/4/2017	14:51
Endrin Ketone	< 4.81	ug/Kg	3/4/2017	14:51
gamma-BHC (Lindane)	< 4.81	ug/Kg	3/4/2017	14:51
Heptachlor	< 4.81	ug/Kg	3/4/2017	14:51
Heptachlor Epoxide	< 4.81	ug/Kg	3/4/2017	14:51
Methoxychlor	< 4.81	ug/Kg	3/4/2017	14:51
Toxaphene	< 48.1	ug/Kg	3/4/2017	14:51
trans-Chlordane	< 4.81	ug/Kg	3/4/2017	14:51

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	71.6	10 - 152		3/4/2017 14:51
Tetrachloro-m-xylene (1)	54.4	10 - 91.1		3/4/2017 14:51

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 3/3/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 486	ug/Kg		3/6/2017 13:17
1,2,4,5-Tetrachlorobenzene	< 486	ug/Kg		3/6/2017 13:17
1,2,4-Trichlorobenzene	< 486	ug/Kg		3/6/2017 13:17
1,2-Dichlorobenzene	< 486	ug/Kg		3/6/2017 13:17
1,3-Dichlorobenzene	< 486	ug/Kg		3/6/2017 13:17
1,4-Dichlorobenzene	< 486	ug/Kg		3/6/2017 13:17
2,2-Oxybis (1-chloropropane)	< 486	ug/Kg		3/6/2017 13:17
2,4-Dinitrotoluene	< 486	ug/Kg		3/6/2017 13:17
2,6-Dinitrotoluene	< 486	ug/Kg		3/6/2017 13:17
2-Chloronaphthalene	< 486	ug/Kg		3/6/2017 13:17
2-Methylnaphthalene	< 486	ug/Kg		3/6/2017 13:17
2-Nitroaniline	< 972	ug/Kg		3/6/2017 13:17

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-2 (0-2)			
<b>Lab Sample ID:</b>	170747-03		<b>Date Sampled:</b>	2/27/2017
<b>Matrix:</b>	Soil		<b>Date Received:</b>	3/1/2017
3,3'-Dichlorobenzidine	< 486	ug/Kg		3/6/2017 13:17
3-Nitroaniline	< 972	ug/Kg		3/6/2017 13:17
4-Bromophenyl phenyl ether	< 486	ug/Kg		3/6/2017 13:17
4-Chloroaniline	< 486	ug/Kg		3/6/2017 13:17
4-Chlorophenyl phenyl ether	< 486	ug/Kg		3/6/2017 13:17
4-Nitroaniline	< 972	ug/Kg		3/6/2017 13:17
Acenaphthene	< 486	ug/Kg		3/6/2017 13:17
Acenaphthylene	< 486	ug/Kg		3/6/2017 13:17
Acetophenone	< 486	ug/Kg		3/6/2017 13:17
Anthracene	< 486	ug/Kg		3/6/2017 13:17
Atrazine	< 486	ug/Kg		3/6/2017 13:17
Benzaldehyde	< 486	ug/Kg		3/6/2017 13:17
Benzo (a) anthracene	< 486	ug/Kg		3/6/2017 13:17
Benzo (a) pyrene	< 486	ug/Kg		3/6/2017 13:17
Benzo (b) fluoranthene	< 486	ug/Kg		3/6/2017 13:17
Benzo (g,h,i) perylene	< 486	ug/Kg		3/6/2017 13:17
Benzo (k) fluoranthene	< 486	ug/Kg		3/6/2017 13:17
Bis (2-chloroethoxy) methane	< 486	ug/Kg		3/6/2017 13:17
Bis (2-chloroethyl) ether	< 486	ug/Kg		3/6/2017 13:17
Bis (2-ethylhexyl) phthalate	< 486	ug/Kg		3/6/2017 13:17
Butylbenzylphthalate	< 486	ug/Kg		3/6/2017 13:17
Caprolactam	< 486	ug/Kg		3/6/2017 13:17
Carbazole	< 486	ug/Kg		3/6/2017 13:17
Chrysene	< 486	ug/Kg		3/6/2017 13:17
Dibenz (a,h) anthracene	< 486	ug/Kg		3/6/2017 13:17
Dibenzofuran	< 486	ug/Kg		3/6/2017 13:17
Diethyl phthalate	< 486	ug/Kg		3/6/2017 13:17
Dimethyl phthalate	< 972	ug/Kg		3/6/2017 13:17
Di-n-butyl phthalate	< 486	ug/Kg		3/6/2017 13:17
Di-n-octylphthalate	< 486	ug/Kg		3/6/2017 13:17
Fluoranthene	< 486	ug/Kg		3/6/2017 13:17
Fluorene	< 486	ug/Kg		3/6/2017 13:17

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-2 (0-2)

**Lab Sample ID:** 170747-03

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Hexachlorobenzene	< 486	ug/Kg	3/6/2017	13:17
Hexachlorobutadiene	< 486	ug/Kg	3/6/2017	13:17
Hexachlorocyclopentadiene	< 486	ug/Kg	3/6/2017	13:17
Hexachloroethane	< 486	ug/Kg	3/6/2017	13:17
Indeno (1,2,3-cd) pyrene	< 486	ug/Kg	3/6/2017	13:17
Isophorone	< 486	ug/Kg	3/6/2017	13:17
Naphthalene	< 486	ug/Kg	3/6/2017	13:17
Nitrobenzene	< 486	ug/Kg	3/6/2017	13:17
N-Nitroso-di-n-propylamine	< 486	ug/Kg	3/6/2017	13:17
N-Nitrosodiphenylamine	< 486	ug/Kg	3/6/2017	13:17
Phenanthrene	< 486	ug/Kg	3/6/2017	13:17
Pyrene	< 486	ug/Kg	3/6/2017	13:17

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	34.2	33.7 - 113		3/6/2017 13:17
Nitrobenzene-d5	30.4	33.3 - 91.5	*	3/6/2017 13:17
Terphenyl-d14	66.3	66.1 - 113		3/6/2017 13:17

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 3/3/2017  
**Data File:** B17803.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 11.5	ug/Kg		3/6/2017 19:37
1,1,2,2-Tetrachloroethane	< 11.5	ug/Kg		3/6/2017 19:37
1,1,2-Trichloroethane	< 11.5	ug/Kg		3/6/2017 19:37
1,1-Dichloroethane	< 11.5	ug/Kg		3/6/2017 19:37
1,1-Dichloroethene	< 11.5	ug/Kg		3/6/2017 19:37
1,2,3-Trichlorobenzene	< 28.8	ug/Kg		3/6/2017 19:37
1,2,4-Trichlorobenzene	< 28.8	ug/Kg		3/6/2017 19:37
1,2,4-Trimethylbenzene	< 11.5	ug/Kg		3/6/2017 19:37
1,2-Dibromo-3-Chloropropane	< 57.7	ug/Kg		3/6/2017 19:37
1,2-Dibromoethane	< 11.5	ug/Kg		3/6/2017 19:37

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-2 (0-2)

**Lab Sample ID:** 170747-03

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

1,2-Dichlorobenzene	< 11.5	ug/Kg	3/6/2017 19:37
1,2-Dichloroethane	< 11.5	ug/Kg	3/6/2017 19:37
1,2-Dichloropropane	< 11.5	ug/Kg	3/6/2017 19:37
1,3,5-Trimethylbenzene	< 11.5	ug/Kg	3/6/2017 19:37
1,3-Dichlorobenzene	< 11.5	ug/Kg	3/6/2017 19:37
1,4-Dichlorobenzene	< 11.5	ug/Kg	3/6/2017 19:37
1,4-dioxane	< 11.5	ug/Kg	3/6/2017 19:37
2-Butanone	< 57.7	ug/Kg	3/6/2017 19:37
2-Hexanone	< 28.8	ug/Kg	3/6/2017 19:37
4-Methyl-2-pentanone	< 28.8	ug/Kg	3/6/2017 19:37
Acetone	< 57.7	ug/Kg	3/6/2017 19:37
Benzene	< 11.5	ug/Kg	3/6/2017 19:37
Bromochloromethane	< 28.8	ug/Kg	3/6/2017 19:37
Bromodichloromethane	< 11.5	ug/Kg	3/6/2017 19:37
Bromoform	< 28.8	ug/Kg	3/6/2017 19:37
Bromomethane	< 11.5	ug/Kg	3/6/2017 19:37
Carbon disulfide	< 11.5	ug/Kg	3/6/2017 19:37
Carbon Tetrachloride	< 11.5	ug/Kg	3/6/2017 19:37
Chlorobenzene	< 11.5	ug/Kg	3/6/2017 19:37
Chloroethane	< 11.5	ug/Kg	3/6/2017 19:37
Chloroform	< 11.5	ug/Kg	3/6/2017 19:37
Chloromethane	< 11.5	ug/Kg	3/6/2017 19:37
cis-1,2-Dichloroethene	< 11.5	ug/Kg	3/6/2017 19:37
cis-1,3-Dichloropropene	< 11.5	ug/Kg	3/6/2017 19:37
Cyclohexane	< 57.7	ug/Kg	3/6/2017 19:37
Dibromochloromethane	< 11.5	ug/Kg	3/6/2017 19:37
Dichlorodifluoromethane	< 11.5	ug/Kg	3/6/2017 19:37
Ethylbenzene	< 11.5	ug/Kg	3/6/2017 19:37
Freon 113	< 11.5	ug/Kg	3/6/2017 19:37
Isopropylbenzene	< 11.5	ug/Kg	3/6/2017 19:37
m,p-Xylene	< 11.5	ug/Kg	3/6/2017 19:37
Methyl acetate	< 11.5	ug/Kg	3/6/2017 19:37

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-2 (0-2)

**Lab Sample ID:** 170747-03

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Methyl tert-butyl Ether	< 11.5	ug/Kg	3/6/2017	19:37
Methylcyclohexane	< 11.5	ug/Kg	3/6/2017	19:37
Methylene chloride	< 28.8	ug/Kg	3/6/2017	19:37
Naphthalene	< 28.8	ug/Kg	3/6/2017	19:37
n-Butylbenzene	< 11.5	ug/Kg	3/6/2017	19:37
n-Propylbenzene	< 11.5	ug/Kg	3/6/2017	19:37
o-Xylene	< 11.5	ug/Kg	3/6/2017	19:37
p-Isopropyltoluene	< 11.5	ug/Kg	3/6/2017	19:37
sec-Butylbenzene	< 11.5	ug/Kg	3/6/2017	19:37
Styrene	< 28.8	ug/Kg	3/6/2017	19:37
tert-Butylbenzene	< 11.5	ug/Kg	3/6/2017	19:37
Tetrachloroethene	< 11.5	ug/Kg	3/6/2017	19:37
Toluene	< 11.5	ug/Kg	3/6/2017	19:37
trans-1,2-Dichloroethene	< 11.5	ug/Kg	3/6/2017	19:37
trans-1,3-Dichloropropene	< 11.5	ug/Kg	3/6/2017	19:37
Trichloroethene	< 11.5	ug/Kg	3/6/2017	19:37
Trichlorofluoromethane	< 11.5	ug/Kg	3/6/2017	19:37
Vinyl chloride	< 11.5	ug/Kg	3/6/2017	19:37

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>124</b>	82.1 - 123	*	3/6/2017 19:37
4-Bromofluorobenzene	<b>60.3</b>	84.6 - 112	*	3/6/2017 19:37
Pentafluorobenzene	<b>103</b>	91.4 - 111		3/6/2017 19:37
Toluene-D8	<b>92.7</b>	90.3 - 108		3/6/2017 19:37

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39810.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.759	mg/Kg		3/3/2017 13:32

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**Client:** **Bergmann Associates**

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-2 (0-2)

**Lab Sample ID:** 170747-03

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 3/3/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-2 (4-6)

**Lab Sample ID:** 170747-04

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.160	mg/Kg		3/4/2017 13:53

Method Reference(s): EPA 7471B  
Preparation Date: 3/3/2017  
Data File: Hg170304B

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	19800	mg/Kg		3/4/2017 18:46
Antimony	< 5.69	mg/Kg		3/7/2017 18:14
Arsenic	50.6	mg/Kg		3/4/2017 18:46
Barium	667	mg/Kg		3/4/2017 18:46
Beryllium	2.34	mg/Kg		3/4/2017 18:46
Cadmium	1.45	mg/Kg		3/4/2017 18:46
Calcium	15700	mg/Kg		3/4/2017 18:46
Chromium	30.3	mg/Kg		3/4/2017 18:46
Cobalt	13.0	mg/Kg		3/4/2017 18:46
Copper	25.4	mg/Kg		3/4/2017 18:46
Iron	46400	mg/Kg		3/4/2017 18:46
Lead	13.2	mg/Kg		3/4/2017 18:46
Magnesium	2450	mg/Kg		3/4/2017 18:46
Manganese	121	mg/Kg		3/4/2017 18:46
Nickel	24.7	mg/Kg		3/4/2017 18:46
Potassium	1570	mg/Kg		3/4/2017 18:46
Selenium	8.04	mg/Kg		3/4/2017 18:46
Silver	5.52	mg/Kg		3/4/2017 18:46
Sodium	1110	mg/Kg		3/4/2017 18:46
Thallium	< 2.37	mg/Kg		3/4/2017 18:46
Vanadium	54.3	mg/Kg		3/4/2017 18:46
Zinc	29.6	mg/Kg		3/4/2017 18:46

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-2 (4-6)

**Lab Sample ID:** 170747-04

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 3/3/2017  
**Data File:** 030417a

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0569	mg/Kg		3/3/2017 19:41
PCB-1221	< 0.0569	mg/Kg		3/3/2017 19:41
PCB-1232	< 0.0569	mg/Kg		3/3/2017 19:41
PCB-1242	< 0.0569	mg/Kg		3/3/2017 19:41
PCB-1248	< 0.0569	mg/Kg		3/3/2017 19:41
PCB-1254	< 0.0569	mg/Kg		3/3/2017 19:41
PCB-1260	< 0.0569	mg/Kg		3/3/2017 19:41
PCB-1262	< 0.0569	mg/Kg		3/3/2017 19:41
PCB-1268	< 0.0569	mg/Kg		3/3/2017 19:41

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	82.0	10 - 142		3/3/2017 19:41
Tetrachloro-m-xylene	43.6	10 - 136		3/3/2017 19:41

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 3/3/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 5.69	ug/Kg		3/4/2017 15:05
4,4-DDE	< 5.69	ug/Kg		3/4/2017 15:05
4,4-DDT	< 5.69	ug/Kg		3/4/2017 15:05
Aldrin	< 5.69	ug/Kg		3/4/2017 15:05
alpha-BHC	< 5.69	ug/Kg		3/4/2017 15:05
beta-BHC	< 5.69	ug/Kg		3/4/2017 15:05
cis-Chlordane	< 5.69	ug/Kg		3/4/2017 15:05
delta-BHC	< 5.69	ug/Kg		3/4/2017 15:05
Dieldrin	< 5.69	ug/Kg		3/4/2017 15:05

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-2 (4-6)

**Lab Sample ID:** 170747-04

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Endosulfan I	< 5.69	ug/Kg	3/4/2017	15:05
Endosulfan II	< 5.69	ug/Kg	3/4/2017	15:05
Endosulfan Sulfate	< 5.69	ug/Kg	3/4/2017	15:05
Endrin	< 5.69	ug/Kg	3/4/2017	15:05
Endrin Aldehyde	< 5.69	ug/Kg	3/4/2017	15:05
Endrin Ketone	< 5.69	ug/Kg	3/4/2017	15:05
gamma-BHC (Lindane)	< 5.69	ug/Kg	3/4/2017	15:05
Heptachlor	< 5.69	ug/Kg	3/4/2017	15:05
Heptachlor Epoxide	< 5.69	ug/Kg	3/4/2017	15:05
Methoxychlor	< 5.69	ug/Kg	3/4/2017	15:05
Toxaphene	< 5.69	ug/Kg	3/4/2017	15:05
trans-Chlordane	< 5.69	ug/Kg	3/4/2017	15:05

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	78.1	10 - 152		3/4/2017 15:05
Tetrachloro-m-xylene (1)	52.6	10 - 91.1		3/4/2017 15:05

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 3/3/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 1060	ug/Kg		3/6/2017 13:46
1,2,4,5-Tetrachlorobenzene	< 1060	ug/Kg		3/6/2017 13:46
1,2,4-Trichlorobenzene	< 1060	ug/Kg		3/6/2017 13:46
1,2-Dichlorobenzene	< 1060	ug/Kg		3/6/2017 13:46
1,3-Dichlorobenzene	< 1060	ug/Kg		3/6/2017 13:46
1,4-Dichlorobenzene	< 1060	ug/Kg		3/6/2017 13:46
2,2-Oxybis (1-chloropropane)	< 1060	ug/Kg		3/6/2017 13:46
2,4-Dinitrotoluene	< 1060	ug/Kg		3/6/2017 13:46
2,6-Dinitrotoluene	< 1060	ug/Kg		3/6/2017 13:46
2-Chloronaphthalene	< 1060	ug/Kg		3/6/2017 13:46
2-Methylnaphthalene	< 1060	ug/Kg		3/6/2017 13:46
2-Nitroaniline	< 2110	ug/Kg		3/6/2017 13:46

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	B-2 (4-6)			
<b>Lab Sample ID:</b>	170747-04	<b>Date Sampled:</b>	2/27/2017	
<b>Matrix:</b>	Soil	<b>Date Received:</b>	3/1/2017	
3,3'-Dichlorobenzidine	< 1060	ug/Kg	3/6/2017	13:46
3-Nitroaniline	< 2110	ug/Kg	3/6/2017	13:46
4-Bromophenyl phenyl ether	< 1060	ug/Kg	3/6/2017	13:46
4-Chloroaniline	< 1060	ug/Kg	3/6/2017	13:46
4-Chlorophenyl phenyl ether	< 1060	ug/Kg	3/6/2017	13:46
4-Nitroaniline	< 2110	ug/Kg	3/6/2017	13:46
Acenaphthene	< 1060	ug/Kg	3/6/2017	13:46
Acenaphthylene	< 1060	ug/Kg	3/6/2017	13:46
Acetophenone	< 1060	ug/Kg	3/6/2017	13:46
Anthracene	< 1060	ug/Kg	3/6/2017	13:46
Atrazine	< 1060	ug/Kg	3/6/2017	13:46
Benzaldehyde	< 1060	ug/Kg	3/6/2017	13:46
Benzo (a) anthracene	< 1060	ug/Kg	3/6/2017	13:46
Benzo (a) pyrene	< 1060	ug/Kg	3/6/2017	13:46
Benzo (b) fluoranthene	< 1060	ug/Kg	3/6/2017	13:46
Benzo (g,h,i) perylene	< 1060	ug/Kg	3/6/2017	13:46
Benzo (k) fluoranthene	< 1060	ug/Kg	3/6/2017	13:46
Bis (2-chloroethoxy) methane	< 1060	ug/Kg	3/6/2017	13:46
Bis (2-chloroethyl) ether	< 1060	ug/Kg	3/6/2017	13:46
Bis (2-ethylhexyl) phthalate	< 1060	ug/Kg	3/6/2017	13:46
Butylbenzylphthalate	< 1060	ug/Kg	3/6/2017	13:46
Caprolactam	< 1060	ug/Kg	3/6/2017	13:46
Carbazole	< 1060	ug/Kg	3/6/2017	13:46
Chrysene	< 1060	ug/Kg	3/6/2017	13:46
Dibenz (a,h) anthracene	< 1060	ug/Kg	3/6/2017	13:46
Dibenzofuran	< 1060	ug/Kg	3/6/2017	13:46
Diethyl phthalate	< 1060	ug/Kg	3/6/2017	13:46
Dimethyl phthalate	< 2110	ug/Kg	3/6/2017	13:46
Di-n-butyl phthalate	< 1060	ug/Kg	3/6/2017	13:46
Di-n-octylphthalate	< 1060	ug/Kg	3/6/2017	13:46
Fluoranthene	< 1060	ug/Kg	3/6/2017	13:46
Fluorene	< 1060	ug/Kg	3/6/2017	13:46

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-2 (4-6)

**Lab Sample ID:** 170747-04

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Hexachlorobenzene	< 1060	ug/Kg	3/6/2017	13:46
Hexachlorobutadiene	< 1060	ug/Kg	3/6/2017	13:46
Hexachlorocyclopentadiene	< 1060	ug/Kg	3/6/2017	13:46
Hexachloroethane	< 1060	ug/Kg	3/6/2017	13:46
Indeno (1,2,3-cd) pyrene	< 1060	ug/Kg	3/6/2017	13:46
Isophorone	< 1060	ug/Kg	3/6/2017	13:46
Naphthalene	< 1060	ug/Kg	3/6/2017	13:46
Nitrobenzene	< 1060	ug/Kg	3/6/2017	13:46
N-Nitroso-di-n-propylamine	< 1060	ug/Kg	3/6/2017	13:46
N-Nitrosodiphenylamine	< 1060	ug/Kg	3/6/2017	13:46
Phenanthrene	< 1060	ug/Kg	3/6/2017	13:46
Pyrene	< 1060	ug/Kg	3/6/2017	13:46

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>	
2-Fluorobiphenyl	23.1	33.7 - 113	*	3/6/2017	13:46
Nitrobenzene-d5	24.2	33.3 - 91.5	*	3/6/2017	13:46
Terphenyl-d14	4.67	66.1 - 113	*	3/6/2017	13:46

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 3/3/2017  
**Data File:** B17804.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 12.4	ug/Kg		3/6/2017 20:01
1,1,2,2-Tetrachloroethane	< 12.4	ug/Kg		3/6/2017 20:01
1,1,2-Trichloroethane	< 12.4	ug/Kg		3/6/2017 20:01
1,1-Dichloroethane	< 12.4	ug/Kg		3/6/2017 20:01
1,1-Dichloroethene	< 12.4	ug/Kg		3/6/2017 20:01
1,2,3-Trichlorobenzene	< 31.0	ug/Kg		3/6/2017 20:01
1,2,4-Trichlorobenzene	< 31.0	ug/Kg		3/6/2017 20:01
1,2,4-Trimethylbenzene	< 12.4	ug/Kg		3/6/2017 20:01
1,2-Dibromo-3-Chloropropane	< 62.1	ug/Kg		3/6/2017 20:01
1,2-Dibromoethane	< 12.4	ug/Kg		3/6/2017 20:01

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-2 (4-6)  
**Lab Sample ID:** 170747-04 **Date Sampled:** 2/27/2017  
**Matrix:** Soil **Date Received:** 3/1/2017

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1,2-Dichlorobenzene	< 12.4	ug/Kg	3/6/2017 20:01
1,2-Dichloroethane	<b>18.0</b>	ug/Kg	3/6/2017 20:01
1,2-Dichloropropane	< 12.4	ug/Kg	3/6/2017 20:01
1,3,5-Trimethylbenzene	< 12.4	ug/Kg	3/6/2017 20:01
1,3-Dichlorobenzene	< 12.4	ug/Kg	3/6/2017 20:01
1,4-Dichlorobenzene	< 12.4	ug/Kg	3/6/2017 20:01
1,4-dioxane	< 12.4	ug/Kg	3/6/2017 20:01
2-Butanone	< 62.1	ug/Kg	3/6/2017 20:01
2-Hexanone	< 31.0	ug/Kg	3/6/2017 20:01
4-Methyl-2-pentanone	< 31.0	ug/Kg	3/6/2017 20:01
Acetone	< 62.1	ug/Kg	3/6/2017 20:01
Benzene	< 12.4	ug/Kg	3/6/2017 20:01
Bromochloromethane	< 31.0	ug/Kg	3/6/2017 20:01
Bromodichloromethane	< 12.4	ug/Kg	3/6/2017 20:01
Bromoform	< 31.0	ug/Kg	3/6/2017 20:01
Bromomethane	< 12.4	ug/Kg	3/6/2017 20:01
Carbon disulfide	< 12.4	ug/Kg	3/6/2017 20:01
Carbon Tetrachloride	< 12.4	ug/Kg	3/6/2017 20:01
Chlorobenzene	< 12.4	ug/Kg	3/6/2017 20:01
Chloroethane	< 12.4	ug/Kg	3/6/2017 20:01
Chloroform	<b>60.6</b>	ug/Kg	3/6/2017 20:01
Chloromethane	< 12.4	ug/Kg	3/6/2017 20:01
cis-1,2-Dichloroethene	< 12.4	ug/Kg	3/6/2017 20:01
cis-1,3-Dichloropropene	< 12.4	ug/Kg	3/6/2017 20:01
Cyclohexane	< 62.1	ug/Kg	3/6/2017 20:01
Dibromochloromethane	< 12.4	ug/Kg	3/6/2017 20:01
Dichlorodifluoromethane	< 12.4	ug/Kg	3/6/2017 20:01
Ethylbenzene	< 12.4	ug/Kg	3/6/2017 20:01
Freon 113	< 12.4	ug/Kg	3/6/2017 20:01
Isopropylbenzene	< 12.4	ug/Kg	3/6/2017 20:01
m,p-Xylene	< 12.4	ug/Kg	3/6/2017 20:01
Methyl acetate	< 12.4	ug/Kg	3/6/2017 20:01

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** B-2 (4-6)

**Lab Sample ID:** 170747-04

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

Methyl tert-butyl Ether	< 12.4	ug/Kg	3/6/2017 20:01
Methylcyclohexane	< 12.4	ug/Kg	3/6/2017 20:01
Methylene chloride	< 31.0	ug/Kg	3/6/2017 20:01
Naphthalene	< 31.0	ug/Kg	3/6/2017 20:01
n-Butylbenzene	< 12.4	ug/Kg	3/6/2017 20:01
n-Propylbenzene	< 12.4	ug/Kg	3/6/2017 20:01
o-Xylene	< 12.4	ug/Kg	3/6/2017 20:01
p-Isopropyltoluene	< 12.4	ug/Kg	3/6/2017 20:01
sec-Butylbenzene	< 12.4	ug/Kg	3/6/2017 20:01
Styrene	< 31.0	ug/Kg	3/6/2017 20:01
tert-Butylbenzene	< 12.4	ug/Kg	3/6/2017 20:01
Tetrachloroethene	< 12.4	ug/Kg	3/6/2017 20:01
Toluene	< 12.4	ug/Kg	3/6/2017 20:01
trans-1,2-Dichloroethene	< 12.4	ug/Kg	3/6/2017 20:01
trans-1,3-Dichloropropene	< 12.4	ug/Kg	3/6/2017 20:01
Trichloroethene	< 12.4	ug/Kg	3/6/2017 20:01
Trichlorofluoromethane	< 12.4	ug/Kg	3/6/2017 20:01
Vinyl chloride	< 12.4	ug/Kg	3/6/2017 20:01

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	217	82.1 - 123	*	3/6/2017 20:01
4-Bromofluorobenzene	57.0	84.6 - 112	*	3/6/2017 20:01
Pentafluorobenzene	87.9	91.4 - 111	*	3/6/2017 20:01
Toluene-D8	74.3	90.3 - 108	*	3/6/2017 20:01

*Internal standard outliers indicate probable matrix interference*

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x39811.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.928	mg/Kg		3/3/2017 13:32

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**Client:** **Bergmann Associates**

**Project Reference:** Port Of Albany

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**Sample Identifier:** B-2 (4-6)

**Lab Sample ID:** 170747-04

**Date Sampled:** 2/27/2017

**Matrix:** Soil

**Date Received:** 3/1/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 3/3/2017

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## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### **Warranty.**

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### **Scope and Compensation.**

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### **Prices.**

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### **Limitations of Liability.**

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### **Hazard Disclosure.**

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### **Sample Handling.**

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### **Legal Responsibility.**

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### **Assignment.**

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### **Force Majeure.**

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### **Law.**

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

# CHAIN OF CUSTODY

1 of 2



<b>REPORT TO:</b>	<b>INVOICE TO:</b>
CLIENT: <i>Paradigm Associates</i>	CLIENT: <i>Paradigm Associates</i>
ADDRESS: <i>250 E Broad St</i>	ADDRESS: <i>Paradigm Associates</i>
CITY: <i>Rochester NY</i>	CITY: <i>←</i>
STATE: <i>NY</i>	STATE: <i>←</i>
ZIP: <i>14604</i>	ZIP: <i>←</i>
PHONE: <i>585-475-7778</i>	PHONE: <i>←</i>
ATTN: <i>S De Meco M. Baratta</i>	ATTN: <i>Jane Aquette</i>
<b>PROJECT REFERENCE</b> <i>PORT OF ALBANY</i>	<b>LAB PROJECT ID</b> <i>176747</i>
<b>Matrix Codes:</b> AQ - Aqueous Liquid NQ - Non-Aqueous Liquid	<b>Requested Analysis:</b> WA - Water WG - Groundwater DW - Drinking Water WW - Wastewater SO - Soil SL - Sludge SD - Solid PT - Paint WP - Wipe CK - Caulk OL - Oil AR - Air
Quotation #: <i>MS 020117A</i>	Email: <i>m.borruop@paradigm.com</i> <i>skene@paradigm.com</i>

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAVE	SAMPLE IDENTIFIER	MATERIALS	CONTAMINANTS	REQUESTED ANALYSIS	REMARKS	PARADIGM LAB SAMPLE NUMBER
<i>2/27/2017</i>	<i>1200</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>B-5 (0-2)</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>TOL+CP-51 8260</i>		<i>01</i>
<i>2/27/2017</i>	<i>1244</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>B-5 (4-6)</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>TCL 6/NC 8270</i>		<i>02</i>
<i>2/27/2017</i>	<i>1400</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>B-2 (0-2)</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Trace Metals</i>		<i>03</i>
<i>2/27/2017</i>	<i>1416</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>B-2 (4-6)</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Pesticides</i>		<i>04</i>
							<i>PCB1</i>		
							<i>Total Cyanide</i>		

Turnaround Time	Report Supplements
Availability contingent upon lab approval; additional fees may apply.	
Standard 5 day <input checked="" type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>
Rush 1 day <input type="checkbox"/>	Other <input type="checkbox"/>
Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>

Sampled By: *Morgan Belluso* Date/Time: *2/28/2017 1500* Total Cost:

Relinquished By: *Morgan Belluso* Date/Time: *2/28/2017 0900*

Received By: *Jane Aquette* Date/Time: *3/1/2017 0900* *received*

Received @ Lab By: *AP* Date/Time: *3/1/17 10:46* P.I.F.

*47c received 3/1/17 09:27*

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).





### Chain of Custody Supplement

Client: Bergmann Associates Completed by: Glenn Pezzulo  
 Lab Project ID: 170747 Date: 3/1/17

**Sample Condition Requirements**  
 Per NELAC/ELAP 210/241/242/243/244

Condition	<i>NELAC compliance with the sample condition requirements upon receipt</i>		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <i>S035</i>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <i>Metals</i>
Comments	<i>4°C iced</i>		
Sufficient Sample Quantity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Comments	_____		



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

*Analytical Report For*  
**Bergmann Associates**

*For Lab Project ID*

**171020**

*Referencing*

**Port Of Albany**

*Prepared*

**Tuesday, March 21, 2017**

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in black ink, consisting of several overlapping, slanted lines that form a stylized, somewhat abstract shape.

---

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

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*Report Prepared Tuesday, March 21, 2017*

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 1

**Lab Sample ID:** 171020-01

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0930	mg/Kg		3/18/2017 15:29

Method Reference(s): EPA 7471B  
Preparation Date: 3/18/2017  
Data File: Hg170318D

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	6870	mg/Kg		3/20/2017 19:04
Antimony	< 3.70	mg/Kg		3/20/2017 19:04
Arsenic	3.55	mg/Kg		3/20/2017 19:04
Barium	47.2	mg/Kg		3/20/2017 19:04
Beryllium	0.395	mg/Kg		3/20/2017 19:04
Cadmium	< 0.309	mg/Kg		3/20/2017 19:04
Calcium	3760	mg/Kg		3/20/2017 19:04
Chromium	11.6	mg/Kg		3/20/2017 19:04
Cobalt	7.11	mg/Kg		3/20/2017 19:04
Copper	15.0	mg/Kg		3/20/2017 19:04
Iron	15600	mg/Kg		3/20/2017 19:04
Lead	18.8	mg/Kg		3/20/2017 19:04
Magnesium	3020	mg/Kg		3/20/2017 19:04
Manganese	251	mg/Kg		3/20/2017 19:04
Nickel	15.8	mg/Kg		3/20/2017 19:04
Potassium	1310	mg/Kg		3/20/2017 19:04
Selenium	< 0.617	mg/Kg		3/20/2017 19:04
Silver	< 0.617	mg/Kg		3/20/2017 19:04
Sodium	< 154	mg/Kg		3/20/2017 19:04
Thallium	< 1.54	mg/Kg		3/20/2017 19:04
Vanadium	18.6	mg/Kg		3/20/2017 19:04
Zinc	71.4	mg/Kg		3/20/2017 19:04

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 1

**Lab Sample ID:** 171020-01

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 3/16/2017  
**Data File:** 032017C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0381	mg/Kg		3/21/2017 10:40
PCB-1221	< 0.0381	mg/Kg		3/21/2017 10:40
PCB-1232	< 0.0381	mg/Kg		3/21/2017 10:40
PCB-1242	< 0.0381	mg/Kg		3/21/2017 10:40
PCB-1248	< 0.0381	mg/Kg		3/21/2017 10:40
PCB-1254	< 0.0381	mg/Kg		3/21/2017 10:40
PCB-1260	< 0.0381	mg/Kg		3/21/2017 10:40
PCB-1262	< 0.0381	mg/Kg		3/21/2017 10:40
PCB-1268	< 0.0381	mg/Kg		3/21/2017 10:40

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	83.4	10 - 142		3/21/2017 10:40
Tetrachloro-m-xylene	36.9	10 - 136		3/21/2017 10:40

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 3/17/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.81	ug/Kg		3/20/2017 11:15
4,4-DDE	< 3.81	ug/Kg		3/20/2017 11:15
4,4-DDT	< 3.81	ug/Kg		3/20/2017 11:15
Aldrin	< 3.81	ug/Kg		3/20/2017 11:15
alpha-BHC	< 3.81	ug/Kg		3/20/2017 11:15
beta-BHC	< 3.81	ug/Kg		3/20/2017 11:15
cis-Chlordane	< 3.81	ug/Kg		3/20/2017 11:15
delta-BHC	< 3.81	ug/Kg		3/20/2017 11:15
Dieldrin	< 3.81	ug/Kg		3/20/2017 11:15

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 1

**Lab Sample ID:** 171020-01

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

Endosulfan I	< 3.81	ug/Kg		3/20/2017 11:15
Endosulfan II	< 3.81	ug/Kg		3/20/2017 11:15
Endosulfan Sulfate	< 3.81	ug/Kg		3/20/2017 11:15
Endrin	< 3.81	ug/Kg		3/20/2017 11:15
Endrin Aldehyde	<b>5.93</b>	ug/Kg	BP	3/20/2017 11:15
Endrin Ketone	<b>3.95</b>	ug/Kg	P	3/20/2017 11:15
gamma-BHC (Lindane)	< 3.81	ug/Kg		3/20/2017 11:15
Heptachlor	< 3.81	ug/Kg		3/20/2017 11:15
Heptachlor Epoxide	<b>9.25</b>	ug/Kg		3/20/2017 11:15
Methoxychlor	<b>7.87</b>	ug/Kg	P	3/20/2017 11:15
Toxaphene	< 38.1	ug/Kg		3/20/2017 11:15
trans-Chlordane	< 3.81	ug/Kg		3/20/2017 11:15

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	<b>663</b>	10 - 152	*	3/20/2017 11:15
Tetrachloro-m-xylene (1)	<b>69.5</b>	10 - 91.1		3/20/2017 11:15

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 3/17/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 387	ug/Kg		3/17/2017 09:30
1,2,4,5-Tetrachlorobenzene	< 387	ug/Kg		3/17/2017 09:30
1,2,4-Trichlorobenzene	< 387	ug/Kg		3/17/2017 09:30
1,2-Dichlorobenzene	< 387	ug/Kg		3/17/2017 09:30
1,3-Dichlorobenzene	< 387	ug/Kg		3/17/2017 09:30
1,4-Dichlorobenzene	< 387	ug/Kg		3/17/2017 09:30
2,2-Oxybis (1-chloropropane)	< 387	ug/Kg		3/17/2017 09:30
2,4-Dinitrotoluene	< 387	ug/Kg		3/17/2017 09:30
2,6-Dinitrotoluene	< 387	ug/Kg		3/17/2017 09:30
2-Chloronaphthalene	< 387	ug/Kg		3/17/2017 09:30
2-Methylnaphthalene	< 387	ug/Kg		3/17/2017 09:30
2-Nitroaniline	< 774	ug/Kg		3/17/2017 09:30

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	Sed 1			
<b>Lab Sample ID:</b>	171020-01	<b>Date Sampled:</b>	3/9/2017	
<b>Matrix:</b>	Soil	<b>Date Received:</b>	3/14/2017	
3,3'-Dichlorobenzidine	< 387	ug/Kg	3/17/2017	09:30
3-Nitroaniline	< 774	ug/Kg	3/17/2017	09:30
4-Bromophenyl phenyl ether	< 387	ug/Kg	3/17/2017	09:30
4-Chloroaniline	< 387	ug/Kg	3/17/2017	09:30
4-Chlorophenyl phenyl ether	< 387	ug/Kg	3/17/2017	09:30
4-Nitroaniline	< 774	ug/Kg	3/17/2017	09:30
Acenaphthene	< 387	ug/Kg	3/17/2017	09:30
Acenaphthylene	< 387	ug/Kg	3/17/2017	09:30
Acetophenone	< 387	ug/Kg	3/17/2017	09:30
Anthracene	< 387	ug/Kg	3/17/2017	09:30
Atrazine	< 387	ug/Kg	3/17/2017	09:30
Benzaldehyde	< 387	ug/Kg	3/17/2017	09:30
Benzo (a) anthracene	< 387	ug/Kg	3/17/2017	09:30
Benzo (a) pyrene	< 387	ug/Kg	3/17/2017	09:30
Benzo (b) fluoranthene	< 387	ug/Kg	3/17/2017	09:30
Benzo (g,h,i) perylene	< 387	ug/Kg	3/17/2017	09:30
Benzo (k) fluoranthene	< 387	ug/Kg	3/17/2017	09:30
Bis (2-chloroethoxy) methane	< 387	ug/Kg	3/17/2017	09:30
Bis (2-chloroethyl) ether	< 387	ug/Kg	3/17/2017	09:30
Bis (2-ethylhexyl) phthalate	< 387	ug/Kg	3/17/2017	09:30
Butylbenzylphthalate	< 387	ug/Kg	3/17/2017	09:30
Caprolactam	< 387	ug/Kg	3/17/2017	09:30
Carbazole	< 387	ug/Kg	3/17/2017	09:30
Chrysene	< 387	ug/Kg	3/17/2017	09:30
Dibenz (a,h) anthracene	< 387	ug/Kg	3/17/2017	09:30
Dibenzofuran	< 387	ug/Kg	3/17/2017	09:30
Diethyl phthalate	< 387	ug/Kg	3/17/2017	09:30
Dimethyl phthalate	< 774	ug/Kg	3/17/2017	09:30
Di-n-butyl phthalate	< 387	ug/Kg	3/17/2017	09:30
Di-n-octylphthalate	< 387	ug/Kg	3/17/2017	09:30
Fluoranthene	< 387	ug/Kg	3/17/2017	09:30
Fluorene	< 387	ug/Kg	3/17/2017	09:30

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 1

**Lab Sample ID:** 171020-01

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

Hexachlorobenzene	< 387	ug/Kg	3/17/2017 09:30
Hexachlorobutadiene	< 387	ug/Kg	3/17/2017 09:30
Hexachlorocyclopentadiene	< 387	ug/Kg	3/17/2017 09:30
Hexachloroethane	< 387	ug/Kg	3/17/2017 09:30
Indeno (1,2,3-cd) pyrene	< 387	ug/Kg	3/17/2017 09:30
Isophorone	< 387	ug/Kg	3/17/2017 09:30
Naphthalene	< 387	ug/Kg	3/17/2017 09:30
Nitrobenzene	< 387	ug/Kg	3/17/2017 09:30
N-Nitroso-di-n-propylamine	< 387	ug/Kg	3/17/2017 09:30
N-Nitrosodiphenylamine	< 387	ug/Kg	3/17/2017 09:30
Phenanthrene	< 387	ug/Kg	3/17/2017 09:30
Pyrene	< 387	ug/Kg	3/17/2017 09:30

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	53.8	33.7 - 113		3/17/2017 09:30
Nitrobenzene-d5	36.5	33.3 - 91.5		3/17/2017 09:30
Terphenyl-d14	73.2	66.1 - 113		3/17/2017 09:30

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 3/16/2017  
**Data File:** B18109.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 7.13	ug/Kg		3/20/2017 14:04
1,1,2,2-Tetrachloroethane	< 7.13	ug/Kg		3/20/2017 14:04
1,1,2-Trichloroethane	< 7.13	ug/Kg		3/20/2017 14:04
1,1-Dichloroethane	< 7.13	ug/Kg		3/20/2017 14:04
1,1-Dichloroethene	< 7.13	ug/Kg		3/20/2017 14:04
1,2,3-Trichlorobenzene	< 17.8	ug/Kg		3/20/2017 14:04
1,2,4-Trichlorobenzene	< 17.8	ug/Kg		3/20/2017 14:04
1,2,4-Trimethylbenzene	< 7.13	ug/Kg		3/20/2017 14:04
1,2-Dibromo-3-Chloropropane	< 35.7	ug/Kg		3/20/2017 14:04
1,2-Dibromoethane	< 7.13	ug/Kg		3/20/2017 14:04

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	Sed 1			
<b>Lab Sample ID:</b>	171020-01		<b>Date Sampled:</b>	3/9/2017
<b>Matrix:</b>	Soil		<b>Date Received:</b>	3/14/2017
1,2-Dichlorobenzene	< 7.13	ug/Kg	3/20/2017	14:04
1,2-Dichloroethane	< 7.13	ug/Kg	3/20/2017	14:04
1,2-Dichloropropane	< 7.13	ug/Kg	3/20/2017	14:04
1,3,5-Trimethylbenzene	< 7.13	ug/Kg	3/20/2017	14:04
1,3-Dichlorobenzene	< 7.13	ug/Kg	3/20/2017	14:04
1,4-Dichlorobenzene	< 7.13	ug/Kg	3/20/2017	14:04
1,4-dioxane	< 71.3	ug/Kg	3/20/2017	14:04
2-Butanone	< 35.7	ug/Kg	3/20/2017	14:04
2-Hexanone	< 17.8	ug/Kg	3/20/2017	14:04
4-Methyl-2-pentanone	< 17.8	ug/Kg	3/20/2017	14:04
Acetone	< 35.7	ug/Kg	3/20/2017	14:04
Benzene	< 7.13	ug/Kg	3/20/2017	14:04
Bromochloromethane	< 17.8	ug/Kg	3/20/2017	14:04
Bromodichloromethane	< 7.13	ug/Kg	3/20/2017	14:04
Bromoform	< 17.8	ug/Kg	3/20/2017	14:04
Bromomethane	< 7.13	ug/Kg	3/20/2017	14:04
Carbon disulfide	< 7.13	ug/Kg	3/20/2017	14:04
Carbon Tetrachloride	< 7.13	ug/Kg	3/20/2017	14:04
Chlorobenzene	< 7.13	ug/Kg	3/20/2017	14:04
Chloroethane	< 7.13	ug/Kg	3/20/2017	14:04
Chloroform	< 7.13	ug/Kg	3/20/2017	14:04
Chloromethane	< 7.13	ug/Kg	3/20/2017	14:04
cis-1,2-Dichloroethene	< 7.13	ug/Kg	3/20/2017	14:04
cis-1,3-Dichloropropene	< 7.13	ug/Kg	3/20/2017	14:04
Cyclohexane	< 35.7	ug/Kg	3/20/2017	14:04
Dibromochloromethane	< 7.13	ug/Kg	3/20/2017	14:04
Dichlorodifluoromethane	< 7.13	ug/Kg	3/20/2017	14:04
Ethylbenzene	< 7.13	ug/Kg	3/20/2017	14:04
Freon 113	< 7.13	ug/Kg	3/20/2017	14:04
Isopropylbenzene	< 7.13	ug/Kg	3/20/2017	14:04
m,p-Xylene	< 7.13	ug/Kg	3/20/2017	14:04
Methyl acetate	< 7.13	ug/Kg	3/20/2017	14:04

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 1

**Lab Sample ID:** 171020-01

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

Methyl tert-butyl Ether	< 7.13	ug/Kg	3/20/2017	14:04
Methylcyclohexane	< 7.13	ug/Kg	3/20/2017	14:04
Methylene chloride	< 17.8	ug/Kg	3/20/2017	14:04
Naphthalene	< 17.8	ug/Kg	3/20/2017	14:04
n-Butylbenzene	< 7.13	ug/Kg	3/20/2017	14:04
n-Propylbenzene	< 7.13	ug/Kg	3/20/2017	14:04
o-Xylene	< 7.13	ug/Kg	3/20/2017	14:04
p-Isopropyltoluene	< 7.13	ug/Kg	3/20/2017	14:04
sec-Butylbenzene	< 7.13	ug/Kg	3/20/2017	14:04
Styrene	< 17.8	ug/Kg	3/20/2017	14:04
tert-Butylbenzene	< 7.13	ug/Kg	3/20/2017	14:04
Tetrachloroethene	< 7.13	ug/Kg	3/20/2017	14:04
Toluene	< 7.13	ug/Kg	3/20/2017	14:04
trans-1,2-Dichloroethene	< 7.13	ug/Kg	3/20/2017	14:04
trans-1,3-Dichloropropene	< 7.13	ug/Kg	3/20/2017	14:04
Trichloroethene	< 7.13	ug/Kg	3/20/2017	14:04
Trichlorofluoromethane	< 7.13	ug/Kg	3/20/2017	14:04
Vinyl chloride	< 7.13	ug/Kg	3/20/2017	14:04

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>105</b>	82.1 - 123		3/20/2017 14:04
4-Bromofluorobenzene	<b>82.2</b>	84.6 - 112	*	3/20/2017 14:04
Pentafluorobenzene	<b>93.7</b>	91.4 - 111		3/20/2017 14:04
Toluene-D8	<b>92.2</b>	90.3 - 108		3/20/2017 14:04

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x40133.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.602	mg/Kg		3/16/2017

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**Client:** **Bergmann Associates**

**Project Reference:** Port Of Albany

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**Sample Identifier:** Sed 1

**Lab Sample ID:** 171020-01

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 3/16/2017

DRAFT



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 2

**Lab Sample ID:** 171020-02

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0396	mg/Kg		3/18/2017 15:32

Method Reference(s): EPA 7471B  
Preparation Date: 3/18/2017  
Data File: Hg170318D

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	6780	mg/Kg		3/20/2017 19:08
Antimony	< 4.43	mg/Kg		3/20/2017 19:08
Arsenic	3.52	mg/Kg		3/20/2017 19:08
Barium	87.9	mg/Kg		3/20/2017 19:08
Beryllium	0.400	mg/Kg		3/20/2017 19:08
Cadmium	0.462	mg/Kg		3/20/2017 19:08
Calcium	7460	mg/Kg		3/20/2017 19:08
Chromium	16.6	mg/Kg		3/20/2017 19:08
Cobalt	7.06	mg/Kg		3/20/2017 19:08
Copper	16.8	mg/Kg		3/20/2017 19:08
Iron	14400	mg/Kg		3/20/2017 19:08
Lead	16.0	mg/Kg		3/20/2017 19:08
Magnesium	3740	mg/Kg		3/20/2017 19:08
Manganese	386	mg/Kg		3/20/2017 19:08
Nickel	19.0	mg/Kg		3/20/2017 19:08
Potassium	1230	mg/Kg		3/20/2017 19:08
Selenium	< 0.738	mg/Kg		3/20/2017 19:08
Silver	< 0.738	mg/Kg		3/20/2017 19:08
Sodium	< 184	mg/Kg		3/20/2017 19:08
Thallium	< 1.84	mg/Kg		3/20/2017 19:08
Vanadium	22.4	mg/Kg		3/20/2017 19:08
Zinc	126	mg/Kg		3/20/2017 19:08

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 2

**Lab Sample ID:** 171020-02

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 3/16/2017  
**Data File:** 032017C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0409	mg/Kg		3/21/2017 11:47
PCB-1221	< 0.0409	mg/Kg		3/21/2017 11:47
PCB-1232	< 0.0409	mg/Kg		3/21/2017 11:47
PCB-1242	< 0.0409	mg/Kg		3/21/2017 11:47
PCB-1248	< 0.0409	mg/Kg		3/21/2017 11:47
PCB-1254	< 0.0409	mg/Kg		3/21/2017 11:47
PCB-1260	< 0.0409	mg/Kg		3/21/2017 11:47
PCB-1262	< 0.0409	mg/Kg		3/21/2017 11:47
PCB-1268	< 0.0409	mg/Kg		3/21/2017 11:47

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	74.5	10 - 142		3/21/2017 11:47
Tetrachloro-m-xylene	35.9	10 - 136		3/21/2017 11:47

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 3/17/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 4.09	ug/Kg		3/20/2017 11:30
4,4-DDE	< 4.09	ug/Kg		3/20/2017 11:30
4,4-DDT	< 4.09	ug/Kg		3/20/2017 11:30
Aldrin	< 4.09	ug/Kg		3/20/2017 11:30
alpha-BHC	< 4.09	ug/Kg		3/20/2017 11:30
beta-BHC	< 4.09	ug/Kg		3/20/2017 11:30
cis-Chlordane	< 4.09	ug/Kg		3/20/2017 11:30
delta-BHC	< 4.09	ug/Kg		3/20/2017 11:30
Dieldrin	4.96	ug/Kg	P	3/20/2017 11:30

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 2

**Lab Sample ID:** 171020-02

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

Endosulfan I	< 4.09	ug/Kg		3/20/2017 11:30
Endosulfan II	< 4.09	ug/Kg		3/20/2017 11:30
Endosulfan Sulfate	< 4.09	ug/Kg		3/20/2017 11:30
Endrin	< 4.09	ug/Kg		3/20/2017 11:30
Endrin Aldehyde	5.13	ug/Kg	B	3/20/2017 11:30
Endrin Ketone	< 4.09	ug/Kg		3/20/2017 11:30
gamma-BHC (Lindane)	< 4.09	ug/Kg		3/20/2017 11:30
Heptachlor	< 4.09	ug/Kg		3/20/2017 11:30
Heptachlor Epoxide	< 4.09	ug/Kg		3/20/2017 11:30
Methoxychlor	13.4	ug/Kg		3/20/2017 11:30
Toxaphene	< 40.9	ug/Kg		3/20/2017 11:30
trans-Chlordane	< 4.09	ug/Kg		3/20/2017 11:30

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	1100	10 - 152	*	3/20/2017 11:30
Tetrachloro-m-xylene (1)	58.3	10 - 91.1		3/20/2017 11:30

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 3/17/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 421	ug/Kg		3/17/2017 09:59
1,2,4,5-Tetrachlorobenzene	< 421	ug/Kg		3/17/2017 09:59
1,2,4-Trichlorobenzene	< 421	ug/Kg		3/17/2017 09:59
1,2-Dichlorobenzene	< 421	ug/Kg		3/17/2017 09:59
1,3-Dichlorobenzene	< 421	ug/Kg		3/17/2017 09:59
1,4-Dichlorobenzene	< 421	ug/Kg		3/17/2017 09:59
2,2-Oxybis (1-chloropropane)	< 421	ug/Kg		3/17/2017 09:59
2,4-Dinitrotoluene	< 421	ug/Kg		3/17/2017 09:59
2,6-Dinitrotoluene	< 421	ug/Kg		3/17/2017 09:59
2-Chloronaphthalene	< 421	ug/Kg		3/17/2017 09:59
2-Methylnaphthalene	< 421	ug/Kg		3/17/2017 09:59
2-Nitroaniline	< 842	ug/Kg		3/17/2017 09:59

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	Sed 2			
<b>Lab Sample ID:</b>	171020-02	<b>Date Sampled:</b>	3/9/2017	
<b>Matrix:</b>	Soil	<b>Date Received:</b>	3/14/2017	
3,3'-Dichlorobenzidine	< 421	ug/Kg	3/17/2017	09:59
3-Nitroaniline	< 842	ug/Kg	3/17/2017	09:59
4-Bromophenyl phenyl ether	< 421	ug/Kg	3/17/2017	09:59
4-Chloroaniline	< 421	ug/Kg	3/17/2017	09:59
4-Chlorophenyl phenyl ether	< 421	ug/Kg	3/17/2017	09:59
4-Nitroaniline	< 842	ug/Kg	3/17/2017	09:59
Acenaphthene	< 421	ug/Kg	3/17/2017	09:59
Acenaphthylene	< 421	ug/Kg	3/17/2017	09:59
Acetophenone	< 421	ug/Kg	3/17/2017	09:59
Anthracene	< 421	ug/Kg	3/17/2017	09:59
Atrazine	< 421	ug/Kg	3/17/2017	09:59
Benzaldehyde	< 421	ug/Kg	3/17/2017	09:59
Benzo (a) anthracene	< 421	ug/Kg	3/17/2017	09:59
Benzo (a) pyrene	< 421	ug/Kg	3/17/2017	09:59
Benzo (b) fluoranthene	< 421	ug/Kg	3/17/2017	09:59
Benzo (g,h,i) perylene	< 421	ug/Kg	3/17/2017	09:59
Benzo (k) fluoranthene	< 421	ug/Kg	3/17/2017	09:59
Bis (2-chloroethoxy) methane	< 421	ug/Kg	3/17/2017	09:59
Bis (2-chloroethyl) ether	< 421	ug/Kg	3/17/2017	09:59
Bis (2-ethylhexyl) phthalate	< 421	ug/Kg	3/17/2017	09:59
Butylbenzylphthalate	< 421	ug/Kg	3/17/2017	09:59
Caprolactam	< 421	ug/Kg	3/17/2017	09:59
Carbazole	< 421	ug/Kg	3/17/2017	09:59
Chrysene	< 421	ug/Kg	3/17/2017	09:59
Dibenz (a,h) anthracene	< 421	ug/Kg	3/17/2017	09:59
Dibenzofuran	< 421	ug/Kg	3/17/2017	09:59
Diethyl phthalate	< 421	ug/Kg	3/17/2017	09:59
Dimethyl phthalate	< 842	ug/Kg	3/17/2017	09:59
Di-n-butyl phthalate	< 421	ug/Kg	3/17/2017	09:59
Di-n-octylphthalate	< 421	ug/Kg	3/17/2017	09:59
Fluoranthene	< 421	ug/Kg	3/17/2017	09:59
Fluorene	< 421	ug/Kg	3/17/2017	09:59

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 2

**Lab Sample ID:** 171020-02

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

Hexachlorobenzene	< 421	ug/Kg	3/17/2017 09:59
Hexachlorobutadiene	< 421	ug/Kg	3/17/2017 09:59
Hexachlorocyclopentadiene	< 421	ug/Kg	3/17/2017 09:59
Hexachloroethane	< 421	ug/Kg	3/17/2017 09:59
Indeno (1,2,3-cd) pyrene	< 421	ug/Kg	3/17/2017 09:59
Isophorone	< 421	ug/Kg	3/17/2017 09:59
Naphthalene	< 421	ug/Kg	3/17/2017 09:59
Nitrobenzene	< 421	ug/Kg	3/17/2017 09:59
N-Nitroso-di-n-propylamine	< 421	ug/Kg	3/17/2017 09:59
N-Nitrosodiphenylamine	< 421	ug/Kg	3/17/2017 09:59
Phenanthrene	< 421	ug/Kg	3/17/2017 09:59
Pyrene	< 421	ug/Kg	3/17/2017 09:59

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	64.9	33.7 - 113		3/17/2017 09:59
Nitrobenzene-d5	59.1	33.3 - 91.5		3/17/2017 09:59
Terphenyl-d14	85.7	66.1 - 113		3/17/2017 09:59

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 3/16/2017  
**Data File:** B18110.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 11.2	ug/Kg		3/17/2017 16:48
1,1,2,2-Tetrachloroethane	< 11.2	ug/Kg		3/17/2017 16:48
1,1,2-Trichloroethane	< 11.2	ug/Kg		3/17/2017 16:48
1,1-Dichloroethane	< 11.2	ug/Kg		3/17/2017 16:48
1,1-Dichloroethene	< 11.2	ug/Kg		3/17/2017 16:48
1,2,3-Trichlorobenzene	< 28.0	ug/Kg		3/17/2017 16:48
1,2,4-Trichlorobenzene	< 28.0	ug/Kg		3/17/2017 16:48
1,2,4-Trimethylbenzene	< 11.2	ug/Kg		3/17/2017 16:48
1,2-Dibromo-3-Chloropropane	< 56.0	ug/Kg		3/17/2017 16:48
1,2-Dibromoethane	< 11.2	ug/Kg		3/17/2017 16:48

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	Sed 2			
<b>Lab Sample ID:</b>	171020-02		<b>Date Sampled:</b>	3/9/2017
<b>Matrix:</b>	Soil		<b>Date Received:</b>	3/14/2017
1,2-Dichlorobenzene	< 11.2	ug/Kg		3/17/2017 16:48
1,2-Dichloroethane	< 11.2	ug/Kg		3/17/2017 16:48
1,2-Dichloropropane	< 11.2	ug/Kg		3/17/2017 16:48
1,3,5-Trimethylbenzene	< 11.2	ug/Kg		3/17/2017 16:48
1,3-Dichlorobenzene	< 11.2	ug/Kg		3/17/2017 16:48
1,4-Dichlorobenzene	< 11.2	ug/Kg		3/17/2017 16:48
1,4-dioxane	< 11.2	ug/Kg		3/17/2017 16:48
2-Butanone	< 56.0	ug/Kg		3/17/2017 16:48
2-Hexanone	< 28.0	ug/Kg		3/17/2017 16:48
4-Methyl-2-pentanone	< 28.0	ug/Kg		3/17/2017 16:48
Acetone	< 56.0	ug/Kg		3/17/2017 16:48
Benzene	< 11.2	ug/Kg		3/17/2017 16:48
Bromochloromethane	< 28.0	ug/Kg		3/17/2017 16:48
Bromodichloromethane	< 11.2	ug/Kg		3/17/2017 16:48
Bromoform	< 28.0	ug/Kg		3/17/2017 16:48
Bromomethane	< 11.2	ug/Kg		3/17/2017 16:48
Carbon disulfide	< 11.2	ug/Kg		3/17/2017 16:48
Carbon Tetrachloride	< 11.2	ug/Kg		3/17/2017 16:48
Chlorobenzene	< 11.2	ug/Kg		3/17/2017 16:48
Chloroethane	< 11.2	ug/Kg		3/17/2017 16:48
Chloroform	< 11.2	ug/Kg		3/17/2017 16:48
Chloromethane	< 11.2	ug/Kg		3/17/2017 16:48
cis-1,2-Dichloroethene	< 11.2	ug/Kg		3/17/2017 16:48
cis-1,3-Dichloropropene	< 11.2	ug/Kg		3/17/2017 16:48
Cyclohexane	< 56.0	ug/Kg		3/17/2017 16:48
Dibromochloromethane	< 11.2	ug/Kg		3/17/2017 16:48
Dichlorodifluoromethane	< 11.2	ug/Kg		3/17/2017 16:48
Ethylbenzene	< 11.2	ug/Kg		3/17/2017 16:48
Freon 113	< 11.2	ug/Kg		3/17/2017 16:48
Isopropylbenzene	< 11.2	ug/Kg		3/17/2017 16:48
m,p-Xylene	< 11.2	ug/Kg		3/17/2017 16:48
Methyl acetate	< 11.2	ug/Kg		3/17/2017 16:48

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 2

**Lab Sample ID:** 171020-02

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

Methyl tert-butyl Ether	< 11.2	ug/Kg	3/17/2017 16:48
Methylcyclohexane	< 11.2	ug/Kg	3/17/2017 16:48
Methylene chloride	< 28.0	ug/Kg	3/17/2017 16:48
Naphthalene	< 28.0	ug/Kg	3/17/2017 16:48
n-Butylbenzene	< 11.2	ug/Kg	3/17/2017 16:48
n-Propylbenzene	< 11.2	ug/Kg	3/17/2017 16:48
o-Xylene	< 11.2	ug/Kg	3/17/2017 16:48
p-Isopropyltoluene	< 11.2	ug/Kg	3/17/2017 16:48
sec-Butylbenzene	< 11.2	ug/Kg	3/17/2017 16:48
Styrene	< 28.0	ug/Kg	3/17/2017 16:48
tert-Butylbenzene	< 11.2	ug/Kg	3/17/2017 16:48
Tetrachloroethene	< 11.2	ug/Kg	3/17/2017 16:48
Toluene	< 11.2	ug/Kg	3/17/2017 16:48
trans-1,2-Dichloroethene	< 11.2	ug/Kg	3/17/2017 16:48
trans-1,3-Dichloropropene	< 11.2	ug/Kg	3/17/2017 16:48
Trichloroethene	< 11.2	ug/Kg	3/17/2017 16:48
Trichlorofluoromethane	< 11.2	ug/Kg	3/17/2017 16:48
Vinyl chloride	< 11.2	ug/Kg	3/17/2017 16:48

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>101</b>	82.1 - 123		3/17/2017 16:48
4-Bromofluorobenzene	<b>95.8</b>	84.6 - 112		3/17/2017 16:48
Pentafluorobenzene	<b>103</b>	91.4 - 111		3/17/2017 16:48
Toluene-D8	<b>98.0</b>	90.3 - 108		3/17/2017 16:48

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x40110.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.640	mg/Kg		3/16/2017

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**Client:** **Bergmann Associates**

**Project Reference:** Port Of Albany

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**Sample Identifier:** Sed 2

**Lab Sample ID:** 171020-02

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 3/16/2017

DRAFT





**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 3

**Lab Sample ID:** 171020-03

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0249	mg/Kg		3/18/2017 15:37

Method Reference(s): EPA 7471B  
Preparation Date: 3/18/2017  
Data File: Hg170318D

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	13300	mg/Kg		3/20/2017 19:12
Antimony	3.17	mg/Kg		3/20/2017 19:12
Arsenic	11.2	mg/Kg		3/20/2017 19:12
Barium	162	mg/Kg		3/20/2017 19:12
Beryllium	0.879	mg/Kg		3/20/2017 19:12
Cadmium	1.00	mg/Kg		3/20/2017 19:12
Calcium	5380	mg/Kg		3/20/2017 19:12
Chromium	24.9	mg/Kg		3/20/2017 19:12
Cobalt	8.19	mg/Kg		3/20/2017 19:12
Copper	18.1	mg/Kg		3/20/2017 19:12
Iron	57900	mg/Kg		3/20/2017 19:12
Lead	11.2	mg/Kg		3/20/2017 19:12
Magnesium	1910	mg/Kg		3/20/2017 19:12
Manganese	284	mg/Kg		3/20/2017 19:12
Nickel	30.8	mg/Kg		3/20/2017 19:12
Potassium	1160	mg/Kg		3/20/2017 19:12
Selenium	< 0.491	mg/Kg		3/20/2017 19:12
Silver	< 0.491	mg/Kg		3/20/2017 19:12
Sodium	463	mg/Kg		3/20/2017 19:12
Thallium	< 1.23	mg/Kg		3/20/2017 19:12
Vanadium	62.2	mg/Kg		3/20/2017 19:12
Zinc	41.5	mg/Kg		3/20/2017 19:12

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 3

**Lab Sample ID:** 171020-03

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

**Method Reference(s):** EPA 6010C  
EPA 3050B  
**Preparation Date:** 3/16/2017  
**Data File:** 032017C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0287	mg/Kg		3/21/2017 12:09
PCB-1221	< 0.0287	mg/Kg		3/21/2017 12:09
PCB-1232	< 0.0287	mg/Kg		3/21/2017 12:09
PCB-1242	< 0.0287	mg/Kg		3/21/2017 12:09
PCB-1248	< 0.0287	mg/Kg		3/21/2017 12:09
PCB-1254	< 0.0287	mg/Kg		3/21/2017 12:09
PCB-1260	< 0.0287	mg/Kg		3/21/2017 12:09
PCB-1262	< 0.0287	mg/Kg		3/21/2017 12:09
PCB-1268	< 0.0287	mg/Kg		3/21/2017 12:09

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	87.9	10 - 142		3/21/2017 12:09
Tetrachloro-m-xylene	42.3	10 - 136		3/21/2017 12:09

**Method Reference(s):** EPA 8082A  
EPA 3550C  
**Preparation Date:** 3/17/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 2.87	ug/Kg		3/20/2017 11:44
4,4-DDE	< 2.87	ug/Kg		3/20/2017 11:44
4,4-DDT	< 2.87	ug/Kg		3/20/2017 11:44
Aldrin	< 2.87	ug/Kg		3/20/2017 11:44
alpha-BHC	< 2.87	ug/Kg		3/20/2017 11:44
beta-BHC	< 2.87	ug/Kg		3/20/2017 11:44
cis-Chlordane	< 2.87	ug/Kg		3/20/2017 11:44
delta-BHC	< 2.87	ug/Kg		3/20/2017 11:44
Dieldrin	< 2.87	ug/Kg		3/20/2017 11:44

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 3

**Lab Sample ID:** 171020-03

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

Endosulfan I	< 2.87	ug/Kg		3/20/2017 11:44
Endosulfan II	< 2.87	ug/Kg		3/20/2017 11:44
Endosulfan Sulfate	< 2.87	ug/Kg		3/20/2017 11:44
Endrin	< 2.87	ug/Kg		3/20/2017 11:44
Endrin Aldehyde	<b>2.91</b>	ug/Kg	B	3/20/2017 11:44
Endrin Ketone	< 2.87	ug/Kg		3/20/2017 11:44
gamma-BHC (Lindane)	< 2.87	ug/Kg		3/20/2017 11:44
Heptachlor	< 2.87	ug/Kg		3/20/2017 11:44
Heptachlor Epoxide	< 2.87	ug/Kg		3/20/2017 11:44
Methoxychlor	< 2.87	ug/Kg		3/20/2017 11:44
Toxaphene	< 28.7	ug/Kg		3/20/2017 11:44
trans-Chlordane	< 2.87	ug/Kg		3/20/2017 11:44

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	<b>122</b>	10 - 152		3/20/2017 11:44
Tetrachloro-m-xylene (1)	<b>66.3</b>	10 - 91.1		3/20/2017 11:44

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 3/17/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 301	ug/Kg		3/17/2017 10:28
1,2,4,5-Tetrachlorobenzene	< 301	ug/Kg		3/17/2017 10:28
1,2,4-Trichlorobenzene	< 301	ug/Kg		3/17/2017 10:28
1,2-Dichlorobenzene	< 301	ug/Kg		3/17/2017 10:28
1,3-Dichlorobenzene	< 301	ug/Kg		3/17/2017 10:28
1,4-Dichlorobenzene	< 301	ug/Kg		3/17/2017 10:28
2,2-Oxybis (1-chloropropane)	< 301	ug/Kg		3/17/2017 10:28
2,4-Dinitrotoluene	< 301	ug/Kg		3/17/2017 10:28
2,6-Dinitrotoluene	< 301	ug/Kg		3/17/2017 10:28
2-Chloronaphthalene	< 301	ug/Kg		3/17/2017 10:28
2-Methylnaphthalene	< 301	ug/Kg		3/17/2017 10:28
2-Nitroaniline	< 602	ug/Kg		3/17/2017 10:28

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	Sed 3			
<b>Lab Sample ID:</b>	171020-03	<b>Date Sampled:</b>	3/9/2017	
<b>Matrix:</b>	Soil	<b>Date Received:</b>	3/14/2017	
3,3'-Dichlorobenzidine	< 301	ug/Kg	3/17/2017	10:28
3-Nitroaniline	< 602	ug/Kg	3/17/2017	10:28
4-Bromophenyl phenyl ether	< 301	ug/Kg	3/17/2017	10:28
4-Chloroaniline	< 301	ug/Kg	3/17/2017	10:28
4-Chlorophenyl phenyl ether	< 301	ug/Kg	3/17/2017	10:28
4-Nitroaniline	< 602	ug/Kg	3/17/2017	10:28
Acenaphthene	< 301	ug/Kg	3/17/2017	10:28
Acenaphthylene	< 301	ug/Kg	3/17/2017	10:28
Acetophenone	< 301	ug/Kg	3/17/2017	10:28
Anthracene	< 301	ug/Kg	3/17/2017	10:28
Atrazine	< 301	ug/Kg	3/17/2017	10:28
Benzaldehyde	< 301	ug/Kg	3/17/2017	10:28
Benzo (a) anthracene	< 301	ug/Kg	3/17/2017	10:28
Benzo (a) pyrene	< 301	ug/Kg	3/17/2017	10:28
Benzo (b) fluoranthene	< 301	ug/Kg	3/17/2017	10:28
Benzo (g,h,i) perylene	< 301	ug/Kg	3/17/2017	10:28
Benzo (k) fluoranthene	< 301	ug/Kg	3/17/2017	10:28
Bis (2-chloroethoxy) methane	< 301	ug/Kg	3/17/2017	10:28
Bis (2-chloroethyl) ether	< 301	ug/Kg	3/17/2017	10:28
Bis (2-ethylhexyl) phthalate	< 301	ug/Kg	3/17/2017	10:28
Butylbenzylphthalate	< 301	ug/Kg	3/17/2017	10:28
Caprolactam	< 301	ug/Kg	3/17/2017	10:28
Carbazole	< 301	ug/Kg	3/17/2017	10:28
Chrysene	< 301	ug/Kg	3/17/2017	10:28
Dibenz (a,h) anthracene	< 301	ug/Kg	3/17/2017	10:28
Dibenzofuran	< 301	ug/Kg	3/17/2017	10:28
Diethyl phthalate	< 301	ug/Kg	3/17/2017	10:28
Dimethyl phthalate	< 602	ug/Kg	3/17/2017	10:28
Di-n-butyl phthalate	< 301	ug/Kg	3/17/2017	10:28
Di-n-octylphthalate	< 301	ug/Kg	3/17/2017	10:28
Fluoranthene	< 301	ug/Kg	3/17/2017	10:28
Fluorene	< 301	ug/Kg	3/17/2017	10:28

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 3

**Lab Sample ID:** 171020-03

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

Hexachlorobenzene	< 301	ug/Kg	3/17/2017 10:28
Hexachlorobutadiene	< 301	ug/Kg	3/17/2017 10:28
Hexachlorocyclopentadiene	< 301	ug/Kg	3/17/2017 10:28
Hexachloroethane	< 301	ug/Kg	3/17/2017 10:28
Indeno (1,2,3-cd) pyrene	< 301	ug/Kg	3/17/2017 10:28
Isophorone	< 301	ug/Kg	3/17/2017 10:28
Naphthalene	< 301	ug/Kg	3/17/2017 10:28
Nitrobenzene	< 301	ug/Kg	3/17/2017 10:28
N-Nitroso-di-n-propylamine	< 301	ug/Kg	3/17/2017 10:28
N-Nitrosodiphenylamine	< 301	ug/Kg	3/17/2017 10:28
Phenanthrene	< 301	ug/Kg	3/17/2017 10:28
Pyrene	< 301	ug/Kg	3/17/2017 10:28

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	60.8	33.7 - 113		3/17/2017 10:28
Nitrobenzene-d5	57.2	33.3 - 91.5		3/17/2017 10:28
Terphenyl-d14	92.4	66.1 - 113		3/17/2017 10:28

**Method Reference(s):** EPA 8270D  
EPA 3550C  
**Preparation Date:** 3/16/2017  
**Data File:** B18111.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 8.78	ug/Kg		3/17/2017 17:13
1,1,2,2-Tetrachloroethane	< 8.78	ug/Kg		3/17/2017 17:13
1,1,2-Trichloroethane	< 8.78	ug/Kg		3/17/2017 17:13
1,1-Dichloroethane	< 8.78	ug/Kg		3/17/2017 17:13
1,1-Dichloroethene	< 8.78	ug/Kg		3/17/2017 17:13
1,2,3-Trichlorobenzene	< 22.0	ug/Kg		3/17/2017 17:13
1,2,4-Trichlorobenzene	< 22.0	ug/Kg		3/17/2017 17:13
1,2,4-Trimethylbenzene	< 8.78	ug/Kg		3/17/2017 17:13
1,2-Dibromo-3-Chloropropane	< 43.9	ug/Kg		3/17/2017 17:13
1,2-Dibromoethane	< 8.78	ug/Kg		3/17/2017 17:13

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	Sed 3		
<b>Lab Sample ID:</b>	171020-03	<b>Date Sampled:</b>	3/9/2017
<b>Matrix:</b>	Soil	<b>Date Received:</b>	3/14/2017

1,2-Dichlorobenzene	< 8.78	ug/Kg	3/17/2017 17:13
1,2-Dichloroethane	< 8.78	ug/Kg	3/17/2017 17:13
1,2-Dichloropropane	< 8.78	ug/Kg	3/17/2017 17:13
1,3,5-Trimethylbenzene	< 8.78	ug/Kg	3/17/2017 17:13
1,3-Dichlorobenzene	< 8.78	ug/Kg	3/17/2017 17:13
1,4-Dichlorobenzene	< 8.78	ug/Kg	3/17/2017 17:13
1,4-dioxane	< 87.8	ug/Kg	3/17/2017 17:13
2-Butanone	< 43.9	ug/Kg	3/17/2017 17:13
2-Hexanone	< 22.0	ug/Kg	3/17/2017 17:13
4-Methyl-2-pentanone	< 22.0	ug/Kg	3/17/2017 17:13
Acetone	< 43.9	ug/Kg	3/17/2017 17:13
Benzene	< 8.78	ug/Kg	3/17/2017 17:13
Bromochloromethane	< 22.0	ug/Kg	3/17/2017 17:13
Bromodichloromethane	< 8.78	ug/Kg	3/17/2017 17:13
Bromoform	< 22.0	ug/Kg	3/17/2017 17:13
Bromomethane	< 8.78	ug/Kg	3/17/2017 17:13
Carbon disulfide	< 8.78	ug/Kg	3/17/2017 17:13
Carbon Tetrachloride	< 8.78	ug/Kg	3/17/2017 17:13
Chlorobenzene	< 8.78	ug/Kg	3/17/2017 17:13
Chloroethane	< 8.78	ug/Kg	3/17/2017 17:13
Chloroform	< 8.78	ug/Kg	3/17/2017 17:13
Chloromethane	< 8.78	ug/Kg	3/17/2017 17:13
cis-1,2-Dichloroethene	< 8.78	ug/Kg	3/17/2017 17:13
cis-1,3-Dichloropropene	< 8.78	ug/Kg	3/17/2017 17:13
Cyclohexane	< 43.9	ug/Kg	3/17/2017 17:13
Dibromochloromethane	< 8.78	ug/Kg	3/17/2017 17:13
Dichlorodifluoromethane	< 8.78	ug/Kg	3/17/2017 17:13
Ethylbenzene	< 8.78	ug/Kg	3/17/2017 17:13
Freon 113	< 8.78	ug/Kg	3/17/2017 17:13
Isopropylbenzene	< 8.78	ug/Kg	3/17/2017 17:13
m,p-Xylene	< 8.78	ug/Kg	3/17/2017 17:13
Methyl acetate	< 8.78	ug/Kg	3/17/2017 17:13

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sed 3

**Lab Sample ID:** 171020-03

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

Methyl tert-butyl Ether	< 8.78	ug/Kg	3/17/2017 17:13
Methylcyclohexane	< 8.78	ug/Kg	3/17/2017 17:13
Methylene chloride	< 22.0	ug/Kg	3/17/2017 17:13
Naphthalene	< 22.0	ug/Kg	3/17/2017 17:13
n-Butylbenzene	< 8.78	ug/Kg	3/17/2017 17:13
n-Propylbenzene	< 8.78	ug/Kg	3/17/2017 17:13
o-Xylene	< 8.78	ug/Kg	3/17/2017 17:13
p-Isopropyltoluene	< 8.78	ug/Kg	3/17/2017 17:13
sec-Butylbenzene	< 8.78	ug/Kg	3/17/2017 17:13
Styrene	< 22.0	ug/Kg	3/17/2017 17:13
tert-Butylbenzene	< 8.78	ug/Kg	3/17/2017 17:13
Tetrachloroethene	< 8.78	ug/Kg	3/17/2017 17:13
Toluene	< 8.78	ug/Kg	3/17/2017 17:13
trans-1,2-Dichloroethene	< 8.78	ug/Kg	3/17/2017 17:13
trans-1,3-Dichloropropene	< 8.78	ug/Kg	3/17/2017 17:13
Trichloroethene	< 8.78	ug/Kg	3/17/2017 17:13
Trichlorofluoromethane	< 8.78	ug/Kg	3/17/2017 17:13
Vinyl chloride	< 8.78	ug/Kg	3/17/2017 17:13

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>103</b>	82.1 - 123		3/17/2017 17:13
4-Bromofluorobenzene	<b>99.7</b>	84.6 - 112		3/17/2017 17:13
Pentafluorobenzene	<b>101</b>	91.4 - 111		3/17/2017 17:13
Toluene-D8	<b>96.0</b>	90.3 - 108		3/17/2017 17:13

**Method Reference(s):** EPA 8260C  
EPA 5035A - L  
**Data File:** x40111.D

*This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.*

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.416	mg/Kg		3/16/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** Sed 3

**Lab Sample ID:** 171020-03

**Date Sampled:** 3/9/2017

**Matrix:** Soil

**Date Received:** 3/14/2017

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**Method Reference(s):** EPA 9014

**Preparation Date:** 3/16/2017

DRAFT



**Method Blank Report**

**Client:** Bergmann Associates  
**Project Reference:** Port Of Albany  
**Lab Project ID:** 171020  
**Matrix:** Soil

**Chlorinated Pesticides**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
4,4-DDD	<2.67	ug/Kg		3/20/2017 10:32
4,4-DDE	<2.67	ug/Kg		3/20/2017 10:32
4,4-DDT	<2.67	ug/Kg		3/20/2017 10:32
Aldrin	<2.67	ug/Kg		3/20/2017 10:32
alpha-BHC	<2.67	ug/Kg		3/20/2017 10:32
beta-BHC	<2.67	ug/Kg		3/20/2017 10:32
cis-Chlordane	<2.67	ug/Kg		3/20/2017 10:32
delta-BHC	<2.67	ug/Kg		3/20/2017 10:32
Dieldrin	<2.67	ug/Kg		3/20/2017 10:32
Endosulfan I	<2.67	ug/Kg		3/20/2017 10:32
Endosulfan II	<2.67	ug/Kg		3/20/2017 10:32
Endosulfan Sulfate	<2.67	ug/Kg		3/20/2017 10:32
Endrin	<2.67	ug/Kg		3/20/2017 10:32
Endrin Aldehyde	<b>1.84</b>	ug/Kg		3/20/2017 10:32
Endrin Ketone	<2.67	ug/Kg		3/20/2017 10:32
gamma-BHC (Lindane)	<2.67	ug/Kg		3/20/2017 10:32
Heptachlor	<2.67	ug/Kg		3/20/2017 10:32
Heptachlor Epoxide	<2.67	ug/Kg		3/20/2017 10:32
Methoxychlor	<2.67	ug/Kg		3/20/2017 10:32
Toxaphene	<26.7	ug/Kg		3/20/2017 10:32
trans-Chlordane	<2.67	ug/Kg		3/20/2017 10:32

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	<b>119</b>	10 - 152		3/20/2017 10:32
Tetrachloro-m-xylene (1)	<b>72.3</b>	10 - 91.1		3/20/2017 10:32

**Method Reference(s):** EPA 8081B  
EPA 3550C  
**Preparation Date:** 3/17/2017  
**QC Batch ID:** QC170317PESTS  
**QC Number:** 1

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## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*\*\* = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### **Warranty.**

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### **Scope and Compensation.**

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### **Prices.**

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### **Limitations of Liability.**

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### **Hazard Disclosure.**

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### **Sample Handling.**

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### **Legal Responsibility.**

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### **Assignment.**

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### **Force Majeure.**

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### **Law.**

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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# CHAIN OF CUSTODY

10F2



REPORT TO:

INVOICE TO:

LAB PROJECT ID

171020

Quotation #:

Email:

PROJECT REFERENCE

Port of Albany

see sample labels

CLIENT: Bergman Associates  
 ADDRESS: 242 West Broadway St  
 CITY: Rochester STATE: NY ZIP: 14604  
 PHONE: 585-232-5135

CLIENT: Sand  
 ADDRESS:  
 CITY: STATE: ZIP:

CLIENT: Sand  
 ADDRESS:  
 CITY: STATE: ZIP:

Matrix Codes:  
 AQ - Aqueous Liquid  
 NA - Non-Aqueous Liquid  
 WA - Water  
 WG - Groundwater  
 DW - Drinking Water  
 WW - Wastewater  
 SO - Soil  
 SL - Sludge  
 SD - Solid  
 PT - Paint  
 WP - Wipe  
 CK - Caulk  
 OL - Oil  
 AR - Air

REQUESTED ANALYSIS

TCL+CP-SIVOC  
 TCL BNs SVOC  
 TAL Metals  
 8081 Pest  
 8082 PCB'S  
 Total Cyanide  
 TCL P

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GARAB	SAMPLE IDENTIFIER	MCAO TRD IS	NONUM BARENORS	REMARKS	PARADIGM LAB SAMPLE NUMBER
3/9/17	12:45			MW-1	WG	X	Cancel Analysts M.S.	
3/9/17	14:25			MW-2	WG	X	"	
3/9/17	13:44			MW-3	WG	X	"	
3/9/17	13:09			Sed 1	SD	X	speckles near Sed 1, Sed 2	
3/9/17	13:12			Sed 2	SD	X	Sed 3 individually, splash, splash	
3/9/17	14:15			Sed 3	SD	X	Composite to 1 Sample	
3/9/17	13:26			Sed 1	SD	X	Cancel Analysts M.S. 3/14/17	
3/9/17	14:45			Sed 2	SD	X	"	

**Turnaround Time**

Standard 5 day  None Required   
 10 day  Batch QC   
 Rush 3 day  Category A   
 Rush 2 day  Category B   
 Rush 1 day  Other   
 Other

**Report Supplements**

None Required  None Required   
 Basic EDD  NYSDEC EDD   
 Other  Other EDD

Availability contingent upon lab approval; additional fees may apply.

Sampled By: David Plante Date/Time: 3/9/17 3:41 pm

Relinquished By: Dave Plante Date/Time: 3/9/17 3:41 pm

Received By: Leah Stutz Date/Time: 3/9/17 3:41 pm

Received @ Lab By: [Signature] Date/Time: 3/14/17 14:20

Total Cost:

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).  
 Received 3/10/17 12:38 See additional page for sample conditions.





### Chain of Custody Supplement

Client: Bergmann Associates Completed by: Glenn Pezzulo  
 Lab Project ID: 171020 Date: 3/14/17

**Sample Condition Requirements**  
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> S035	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<u>3°C iced</u>		
Sufficient Sample Quantity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

*Analytical Report For*  
**Bergmann Associates**

*For Lab Project ID*

**171216**

*Referencing*

**Port Of Albany**

*Prepared*

**Tuesday, April 04, 2017**

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in black ink, consisting of several overlapping, slanted strokes, positioned above a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

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*Report Prepared Tuesday, April 04, 2017*

Page 1 of 30



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-3

**Lab Sample ID:** 171216-01

**Date Sampled:** 3/27/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	< 0.000200	mg/L		3/30/2017 18:29

Method Reference(s): EPA 7470A  
Preparation Date: 3/30/2017  
Data File: Hg170330D

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	1.09	mg/L		3/29/2017 18:44
Antimony	< 0.0600	mg/L		3/29/2017 18:44
Arsenic	0.0208	mg/L		3/29/2017 18:44
Barium	0.321	mg/L		3/29/2017 18:44
Beryllium	< 0.00500	mg/L		3/29/2017 18:44
Cadmium	< 0.00500	mg/L		3/29/2017 18:44
Calcium	133	mg/L		3/29/2017 18:44
Chromium	< 0.0100	mg/L		3/29/2017 18:44
Cobalt	< 0.0500	mg/L		3/29/2017 18:44
Copper	< 0.0250	mg/L		3/29/2017 18:44
Iron	1.47	mg/L		3/29/2017 18:44
Lead	< 0.0100	mg/L		3/29/2017 18:44
Magnesium	14.0	mg/L		3/29/2017 18:44
Manganese	0.0463	mg/L		3/29/2017 18:44
Nickel	< 0.0400	mg/L		3/29/2017 18:44
Potassium	< 2.50	mg/L		3/29/2017 18:44
Selenium	< 0.0200	mg/L		3/30/2017 17:38
Silver	< 0.0100	mg/L		3/29/2017 18:44
Sodium	142	mg/L		3/29/2017 18:44
Thallium	< 0.0250	mg/L		3/29/2017 18:44
Vanadium	< 0.0250	mg/L		3/29/2017 18:44
Zinc	< 0.0600	mg/L		3/29/2017 18:44

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-3

**Lab Sample ID:** 171216-01

**Date Sampled:** 3/27/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

**Method Reference(s):** EPA 6010C  
EPA 3005A  
**Preparation Date:** 3/28/2017  
**Data File:** 032917C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	ug/L		3/30/2017 13:23
PCB-1221	< 1.00	ug/L		3/30/2017 13:23
PCB-1232	< 1.00	ug/L		3/30/2017 13:23
PCB-1242	< 1.00	ug/L		3/30/2017 13:23
PCB-1248	< 1.00	ug/L		3/30/2017 13:23
PCB-1254	< 1.00	ug/L		3/30/2017 13:23
PCB-1260	< 1.00	ug/L		3/30/2017 13:23
PCB-1262	< 1.00	ug/L		3/30/2017 13:23
PCB-1268	< 1.00	ug/L		3/30/2017 13:23

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	78.3	10 - 105		3/30/2017 13:23
Tetrachloro-m-xylene	35.5	15.7 - 95.8		3/30/2017 13:23

**Method Reference(s):** EPA 8082A  
EPA 3510C  
**Preparation Date:** 3/29/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 0.100	ug/L		3/30/2017 13:57
4,4-DDE	< 0.100	ug/L		3/30/2017 13:57
4,4-DDT	< 0.100	ug/L		3/30/2017 13:57
Aldrin	< 0.100	ug/L		3/30/2017 13:57
alpha-BHC	< 0.100	ug/L		3/30/2017 13:57
beta-BHC	< 0.100	ug/L		3/30/2017 13:57
cis-Chlordane	< 0.100	ug/L		3/30/2017 13:57
delta-BHC	< 0.100	ug/L		3/30/2017 13:57
Dieldrin	< 0.100	ug/L		3/30/2017 13:57

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**Sample Identifier:** MW-3

**Lab Sample ID:** 171216-01

**Date Sampled:** 3/27/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

Endosulfan I	< 0.100	ug/L	3/30/2017	13:57
Endosulfan II	< 0.100	ug/L	3/30/2017	13:57
Endosulfan Sulfate	< 0.100	ug/L	3/30/2017	13:57
Endrin	< 0.100	ug/L	3/30/2017	13:57
Endrin Aldehyde	< 0.100	ug/L	3/30/2017	13:57
Endrin Ketone	< 0.100	ug/L	3/30/2017	13:57
gamma-BHC (Lindane)	< 0.100	ug/L	3/30/2017	13:57
Heptachlor	< 0.100	ug/L	3/30/2017	13:57
Heptachlor Epoxide	< 0.100	ug/L	3/30/2017	13:57
Methoxychlor	< 0.100	ug/L	3/30/2017	13:57
Toxaphene	< 1.00	ug/L	3/30/2017	13:57
trans-Chlordane	< 0.100	ug/L	3/30/2017	13:57

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	102	10 - 111		3/30/2017 13:57
Tetrachloro-m-xylene (1)	44.9	25.5 - 73		3/30/2017 13:57

**Method Reference(s):** EPA 8081B  
EPA 3510C  
**Preparation Date:** 3/29/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 10.0	ug/L		3/31/2017 12:39
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		3/31/2017 12:39
1,2,4-Trichlorobenzene	< 10.0	ug/L		3/31/2017 12:39
1,2-Dichlorobenzene	< 10.0	ug/L		3/31/2017 12:39
1,3-Dichlorobenzene	< 10.0	ug/L		3/31/2017 12:39
1,4-Dichlorobenzene	< 10.0	ug/L		3/31/2017 12:39
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		3/31/2017 12:39
2,4-Dinitrotoluene	< 10.0	ug/L		3/31/2017 12:39
2,6-Dinitrotoluene	< 10.0	ug/L		3/31/2017 12:39
2-Chloronaphthalene	< 10.0	ug/L		3/31/2017 12:39
2-Methylnaphthalene	< 10.0	ug/L		3/31/2017 12:39
2-Nitroaniline	< 20.0	ug/L		3/31/2017 12:39

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** MW-3  
**Lab Sample ID:** 171216-01 **Date Sampled:** 3/27/2017  
**Matrix:** Groundwater **Date Received:** 3/28/2017

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3,3'-Dichlorobenzidine	< 10.0	ug/L	3/31/2017 12:39
3-Nitroaniline	< 20.0	ug/L	3/31/2017 12:39
4-Bromophenyl phenyl ether	< 10.0	ug/L	3/31/2017 12:39
4-Chloroaniline	< 10.0	ug/L	3/31/2017 12:39
4-Chlorophenyl phenyl ether	< 10.0	ug/L	3/31/2017 12:39
4-Nitroaniline	< 20.0	ug/L	3/31/2017 12:39
Acenaphthene	< 10.0	ug/L	3/31/2017 12:39
Acenaphthylene	< 10.0	ug/L	3/31/2017 12:39
Acetophenone	< 10.0	ug/L	3/31/2017 12:39
Anthracene	< 10.0	ug/L	3/31/2017 12:39
Atrazine	< 10.0	ug/L	3/31/2017 12:39
Benzaldehyde	< 10.0	ug/L	3/31/2017 12:39
Benzo (a) anthracene	< 10.0	ug/L	3/31/2017 12:39
Benzo (a) pyrene	< 10.0	ug/L	3/31/2017 12:39
Benzo (b) fluoranthene	< 10.0	ug/L	3/31/2017 12:39
Benzo (g,h,i) perylene	< 10.0	ug/L	3/31/2017 12:39
Benzo (k) fluoranthene	< 10.0	ug/L	3/31/2017 12:39
Bis (2-chloroethoxy) methane	< 10.0	ug/L	3/31/2017 12:39
Bis (2-chloroethyl) ether	< 10.0	ug/L	3/31/2017 12:39
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	3/31/2017 12:39
Butylbenzylphthalate	< 10.0	ug/L	3/31/2017 12:39
Caprolactam	< 10.0	ug/L	3/31/2017 12:39
Carbazole	< 10.0	ug/L	3/31/2017 12:39
Chrysene	< 10.0	ug/L	3/31/2017 12:39
Dibenz (a,h) anthracene	< 10.0	ug/L	3/31/2017 12:39
Dibenzofuran	< 10.0	ug/L	3/31/2017 12:39
Diethyl phthalate	< 10.0	ug/L	3/31/2017 12:39
Dimethyl phthalate	< 20.0	ug/L	3/31/2017 12:39
Di-n-butyl phthalate	< 10.0	ug/L	3/31/2017 12:39
Di-n-octylphthalate	< 10.0	ug/L	3/31/2017 12:39
Fluoranthene	< 10.0	ug/L	3/31/2017 12:39
Fluorene	< 10.0	ug/L	3/31/2017 12:39

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-3

**Lab Sample ID:** 171216-01

**Date Sampled:** 3/27/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

Hexachlorobenzene	< 10.0	ug/L	3/31/2017 12:39
Hexachlorobutadiene	< 10.0	ug/L	3/31/2017 12:39
Hexachlorocyclopentadiene	< 10.0	ug/L	3/31/2017 12:39
Hexachloroethane	< 10.0	ug/L	3/31/2017 12:39
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	3/31/2017 12:39
Isophorone	< 10.0	ug/L	3/31/2017 12:39
Naphthalene	< 10.0	ug/L	3/31/2017 12:39
Nitrobenzene	< 10.0	ug/L	3/31/2017 12:39
N-Nitroso-di-n-propylamine	< 10.0	ug/L	3/31/2017 12:39
N-Nitrosodiphenylamine	< 10.0	ug/L	3/31/2017 12:39
Phenanthrene	< 10.0	ug/L	3/31/2017 12:39
Pyrene	< 10.0	ug/L	3/31/2017 12:39

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	43.0	44.7 - 111	*	3/31/2017 12:39
Nitrobenzene-d5	71.8	52 - 99.4		3/31/2017 12:39
Terphenyl-d14	82.4	57.9 - 113		3/31/2017 12:39

**Method Reference(s):** EPA 8270D  
EPA 3510C  
**Preparation Date:** 3/29/2017  
**Data File:** B18407.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 2.00	ug/L		3/29/2017 16:26
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		3/29/2017 16:26
1,1,2-Trichloroethane	< 2.00	ug/L		3/29/2017 16:26
1,1-Dichloroethane	< 2.00	ug/L		3/29/2017 16:26
1,1-Dichloroethene	< 2.00	ug/L		3/29/2017 16:26
1,2,3-Trichlorobenzene	< 5.00	ug/L		3/29/2017 16:26
1,2,4-Trichlorobenzene	< 5.00	ug/L		3/29/2017 16:26
1,2,4-Trimethylbenzene	< 2.00	ug/L		3/29/2017 16:26
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		3/29/2017 16:26
1,2-Dibromoethane	< 2.00	ug/L		3/29/2017 16:26

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	MW-3			
<b>Lab Sample ID:</b>	171216-01		<b>Date Sampled:</b>	3/27/2017
<b>Matrix:</b>	Groundwater		<b>Date Received:</b>	3/28/2017
1,2-Dichlorobenzene	< 2.00	ug/L		3/29/2017 16:26
1,2-Dichloroethane	< 2.00	ug/L		3/29/2017 16:26
1,2-Dichloropropane	< 2.00	ug/L		3/29/2017 16:26
1,3,5-Trimethylbenzene	< 2.00	ug/L		3/29/2017 16:26
1,3-Dichlorobenzene	< 2.00	ug/L		3/29/2017 16:26
1,4-Dichlorobenzene	< 2.00	ug/L		3/29/2017 16:26
1,4-dioxane	< 20.0	ug/L		3/29/2017 16:26
2-Butanone	< 10.0	ug/L		3/29/2017 16:26
2-Hexanone	< 5.00	ug/L		3/29/2017 16:26
4-Methyl-2-pentanone	< 5.00	ug/L		3/29/2017 16:26
Acetone	< 10.0	ug/L		3/29/2017 16:26
Benzene	< 1.00	ug/L		3/29/2017 16:26
Bromochloromethane	< 5.00	ug/L		3/29/2017 16:26
Bromodichloromethane	< 2.00	ug/L		3/29/2017 16:26
Bromoform	< 5.00	ug/L		3/29/2017 16:26
Bromomethane	< 2.00	ug/L		3/29/2017 16:26
Carbon disulfide	< 2.00	ug/L		3/29/2017 16:26
Carbon Tetrachloride	< 2.00	ug/L		3/29/2017 16:26
Chlorobenzene	< 2.00	ug/L		3/29/2017 16:26
Chloroethane	< 2.00	ug/L		3/29/2017 16:26
Chloroform	< 2.00	ug/L		3/29/2017 16:26
Chloromethane	< 2.00	ug/L		3/29/2017 16:26
cis-1,2-Dichloroethene	< 2.00	ug/L		3/29/2017 16:26
cis-1,3-Dichloropropene	< 2.00	ug/L		3/29/2017 16:26
Cyclohexane	< 10.0	ug/L		3/29/2017 16:26
Dibromochloromethane	< 2.00	ug/L		3/29/2017 16:26
Dichlorodifluoromethane	< 2.00	ug/L		3/29/2017 16:26
Ethylbenzene	< 2.00	ug/L		3/29/2017 16:26
Freon 113	< 2.00	ug/L		3/29/2017 16:26
Isopropylbenzene	< 2.00	ug/L		3/29/2017 16:26
m,p-Xylene	< 2.00	ug/L		3/29/2017 16:26
Methyl acetate	< 2.00	ug/L		3/29/2017 16:26

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-3

**Lab Sample ID:** 171216-01

**Date Sampled:** 3/27/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

Methyl tert-butyl Ether	< 2.00	ug/L	3/29/2017	16:26
Methylcyclohexane	< 2.00	ug/L	3/29/2017	16:26
Methylene chloride	< 5.00	ug/L	3/29/2017	16:26
Naphthalene	< 5.00	ug/L	3/29/2017	16:26
n-Butylbenzene	< 2.00	ug/L	3/29/2017	16:26
n-Propylbenzene	< 2.00	ug/L	3/29/2017	16:26
o-Xylene	< 2.00	ug/L	3/29/2017	16:26
p-Isopropyltoluene	< 2.00	ug/L	3/29/2017	16:26
sec-Butylbenzene	< 2.00	ug/L	3/29/2017	16:26
Styrene	< 5.00	ug/L	3/29/2017	16:26
tert-Butylbenzene	< 2.00	ug/L	3/29/2017	16:26
Tetrachloroethene	< 2.00	ug/L	3/29/2017	16:26
Toluene	< 2.00	ug/L	3/29/2017	16:26
trans-1,2-Dichloroethene	< 2.00	ug/L	3/29/2017	16:26
trans-1,3-Dichloropropene	< 2.00	ug/L	3/29/2017	16:26
Trichloroethene	< 2.00	ug/L	3/29/2017	16:26
Trichlorofluoromethane	< 2.00	ug/L	3/29/2017	16:26
Vinyl chloride	< 2.00	ug/L	3/29/2017	16:26

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>108</b>	81.2 - 120		3/29/2017 16:26
4-Bromofluorobenzene	<b>86.1</b>	82.4 - 112		3/29/2017 16:26
Pentafluorobenzene	<b>91.9</b>	90.2 - 112		3/29/2017 16:26
Toluene-D8	<b>92.9</b>	89.9 - 109		3/29/2017 16:26

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:**

x40319.D

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.0100	mg/L		3/30/2017

**Method Reference(s):** SM22 4500 CN E

**Preparation Date:** 3/30/2017



**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-1

**Lab Sample ID:** 171216-02

**Date Sampled:** 3/27/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	< 0.000200	mg/L		3/30/2017 18:33

Method Reference(s): EPA 7470A  
Preparation Date: 3/30/2017  
Data File: Hg170330D

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.200	mg/L		3/29/2017 18:49
Antimony	< 0.0600	mg/L		3/29/2017 18:49
Arsenic	< 0.0100	mg/L		3/29/2017 18:49
Barium	<b>0.176</b>	mg/L		3/29/2017 18:49
Beryllium	< 0.00500	mg/L		3/29/2017 18:49
Cadmium	< 0.00500	mg/L		3/29/2017 18:49
Calcium	<b>231</b>	mg/L		3/29/2017 18:49
Chromium	< 0.0100	mg/L		3/29/2017 18:49
Cobalt	< 0.0500	mg/L		3/29/2017 18:49
Copper	< 0.0250	mg/L		3/29/2017 18:49
Iron	<b>12.9</b>	mg/L		3/29/2017 18:49
Lead	< 0.0100	mg/L		3/29/2017 18:49
Magnesium	<b>45.5</b>	mg/L		3/29/2017 18:49
Manganese	<b>0.413</b>	mg/L		3/29/2017 18:49
Nickel	< 0.0400	mg/L		3/29/2017 18:49
Potassium	<b>3.23</b>	mg/L		3/29/2017 18:49
Selenium	< 0.0200	mg/L		3/30/2017 17:42
Silver	< 0.0100	mg/L		3/29/2017 18:49
Sodium	<b>4.38</b>	mg/L		3/30/2017 17:42
Thallium	< 0.0250	mg/L		3/29/2017 18:49
Vanadium	< 0.0250	mg/L		3/29/2017 18:49
Zinc	< 0.0600	mg/L		3/29/2017 18:49

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-1

**Lab Sample ID:** 171216-02

**Date Sampled:** 3/27/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

**Method Reference(s):** EPA 6010C  
EPA 3005A  
**Preparation Date:** 3/28/2017  
**Data File:** 032917C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	ug/L		3/30/2017 13:46
PCB-1221	< 1.00	ug/L		3/30/2017 13:46
PCB-1232	< 1.00	ug/L		3/30/2017 13:46
PCB-1242	< 1.00	ug/L		3/30/2017 13:46
PCB-1248	< 1.00	ug/L		3/30/2017 13:46
PCB-1254	< 1.00	ug/L		3/30/2017 13:46
PCB-1260	< 1.00	ug/L		3/30/2017 13:46
PCB-1262	< 1.00	ug/L		3/30/2017 13:46
PCB-1268	< 1.00	ug/L		3/30/2017 13:46

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	78.8	10 - 105		3/30/2017 13:46
Tetrachloro-m-xylene	36.0	15.7 - 95.8		3/30/2017 13:46

**Method Reference(s):** EPA 8082A  
EPA 3510C  
**Preparation Date:** 3/29/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 0.100	ug/L		3/30/2017 14:11
4,4-DDE	< 0.100	ug/L		3/30/2017 14:11
4,4-DDT	< 0.100	ug/L		3/30/2017 14:11
Aldrin	< 0.100	ug/L		3/30/2017 14:11
alpha-BHC	< 0.100	ug/L		3/30/2017 14:11
beta-BHC	< 0.100	ug/L		3/30/2017 14:11
cis-Chlordane	< 0.100	ug/L		3/30/2017 14:11
delta-BHC	< 0.100	ug/L		3/30/2017 14:11
Dieldrin	< 0.100	ug/L		3/30/2017 14:11

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-1

**Lab Sample ID:** 171216-02

**Date Sampled:** 3/27/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

Endosulfan I	< 0.100	ug/L	3/30/2017	14:11
Endosulfan II	< 0.100	ug/L	3/30/2017	14:11
Endosulfan Sulfate	< 0.100	ug/L	3/30/2017	14:11
Endrin	< 0.100	ug/L	3/30/2017	14:11
Endrin Aldehyde	< 0.100	ug/L	3/30/2017	14:11
Endrin Ketone	< 0.100	ug/L	3/30/2017	14:11
gamma-BHC (Lindane)	< 0.100	ug/L	3/30/2017	14:11
Heptachlor	< 0.100	ug/L	3/30/2017	14:11
Heptachlor Epoxide	< 0.100	ug/L	3/30/2017	14:11
Methoxychlor	< 0.100	ug/L	3/30/2017	14:11
Toxaphene	< 1.00	ug/L	3/30/2017	14:11
trans-Chlordane	< 0.100	ug/L	3/30/2017	14:11

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	88.3	10 - 111		3/30/2017 14:11
Tetrachloro-m-xylene (1)	50.0	25.5 - 73		3/30/2017 14:11

**Method Reference(s):** EPA 8081B  
EPA 3510C  
**Preparation Date:** 3/29/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 10.0	ug/L		3/31/2017 13:08
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		3/31/2017 13:08
1,2,4-Trichlorobenzene	< 10.0	ug/L		3/31/2017 13:08
1,2-Dichlorobenzene	< 10.0	ug/L		3/31/2017 13:08
1,3-Dichlorobenzene	< 10.0	ug/L		3/31/2017 13:08
1,4-Dichlorobenzene	< 10.0	ug/L		3/31/2017 13:08
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		3/31/2017 13:08
2,4-Dinitrotoluene	< 10.0	ug/L		3/31/2017 13:08
2,6-Dinitrotoluene	< 10.0	ug/L		3/31/2017 13:08
2-Chloronaphthalene	< 10.0	ug/L		3/31/2017 13:08
2-Methylnaphthalene	< 10.0	ug/L		3/31/2017 13:08
2-Nitroaniline	< 20.0	ug/L		3/31/2017 13:08

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	MW-1			
<b>Lab Sample ID:</b>	171216-02		<b>Date Sampled:</b>	3/27/2017
<b>Matrix:</b>	Groundwater		<b>Date Received:</b>	3/28/2017
3,3'-Dichlorobenzidine	< 10.0	ug/L		3/31/2017 13:08
3-Nitroaniline	< 20.0	ug/L		3/31/2017 13:08
4-Bromophenyl phenyl ether	< 10.0	ug/L		3/31/2017 13:08
4-Chloroaniline	< 10.0	ug/L		3/31/2017 13:08
4-Chlorophenyl phenyl ether	< 10.0	ug/L		3/31/2017 13:08
4-Nitroaniline	< 20.0	ug/L		3/31/2017 13:08
Acenaphthene	< 10.0	ug/L		3/31/2017 13:08
Acenaphthylene	< 10.0	ug/L		3/31/2017 13:08
Acetophenone	< 10.0	ug/L		3/31/2017 13:08
Anthracene	< 10.0	ug/L		3/31/2017 13:08
Atrazine	< 10.0	ug/L		3/31/2017 13:08
Benzaldehyde	< 10.0	ug/L		3/31/2017 13:08
Benzo (a) anthracene	< 10.0	ug/L		3/31/2017 13:08
Benzo (a) pyrene	< 10.0	ug/L		3/31/2017 13:08
Benzo (b) fluoranthene	< 10.0	ug/L		3/31/2017 13:08
Benzo (g,h,i) perylene	< 10.0	ug/L		3/31/2017 13:08
Benzo (k) fluoranthene	< 10.0	ug/L		3/31/2017 13:08
Bis (2-chloroethoxy) methane	< 10.0	ug/L		3/31/2017 13:08
Bis (2-chloroethyl) ether	< 10.0	ug/L		3/31/2017 13:08
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L		3/31/2017 13:08
Butylbenzylphthalate	< 10.0	ug/L		3/31/2017 13:08
Caprolactam	< 10.0	ug/L		3/31/2017 13:08
Carbazole	< 10.0	ug/L		3/31/2017 13:08
Chrysene	< 10.0	ug/L		3/31/2017 13:08
Dibenz (a,h) anthracene	< 10.0	ug/L		3/31/2017 13:08
Dibenzofuran	< 10.0	ug/L		3/31/2017 13:08
Diethyl phthalate	< 10.0	ug/L		3/31/2017 13:08
Dimethyl phthalate	< 20.0	ug/L		3/31/2017 13:08
Di-n-butyl phthalate	< 10.0	ug/L		3/31/2017 13:08
Di-n-octylphthalate	< 10.0	ug/L		3/31/2017 13:08
Fluoranthene	< 10.0	ug/L		3/31/2017 13:08
Fluorene	< 10.0	ug/L		3/31/2017 13:08

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-1

**Lab Sample ID:** 171216-02

**Date Sampled:** 3/27/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

Hexachlorobenzene	< 10.0	ug/L	3/31/2017	13:08
Hexachlorobutadiene	< 10.0	ug/L	3/31/2017	13:08
Hexachlorocyclopentadiene	< 10.0	ug/L	3/31/2017	13:08
Hexachloroethane	< 10.0	ug/L	3/31/2017	13:08
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	3/31/2017	13:08
Isophorone	< 10.0	ug/L	3/31/2017	13:08
Naphthalene	< 10.0	ug/L	3/31/2017	13:08
Nitrobenzene	< 10.0	ug/L	3/31/2017	13:08
N-Nitroso-di-n-propylamine	< 10.0	ug/L	3/31/2017	13:08
N-Nitrosodiphenylamine	< 10.0	ug/L	3/31/2017	13:08
Phenanthrene	< 10.0	ug/L	3/31/2017	13:08
Pyrene	< 10.0	ug/L	3/31/2017	13:08

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	53.1	44.7 - 111		3/31/2017 13:08
Nitrobenzene-d5	67.6	52 - 99.4		3/31/2017 13:08
Terphenyl-d14	84.1	57.9 - 113		3/31/2017 13:08

**Method Reference(s):** EPA 8270D  
EPA 3510C  
**Preparation Date:** 3/29/2017  
**Data File:** B18408.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 2.00	ug/L		3/29/2017 15:38
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		3/29/2017 15:38
1,1,2-Trichloroethane	< 2.00	ug/L		3/29/2017 15:38
1,1-Dichloroethane	< 2.00	ug/L		3/29/2017 15:38
1,1-Dichloroethene	< 2.00	ug/L		3/29/2017 15:38
1,2,3-Trichlorobenzene	< 5.00	ug/L		3/29/2017 15:38
1,2,4-Trichlorobenzene	< 5.00	ug/L		3/29/2017 15:38
1,2,4-Trimethylbenzene	< 2.00	ug/L		3/29/2017 15:38
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		3/29/2017 15:38
1,2-Dibromoethane	< 2.00	ug/L		3/29/2017 15:38

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	MW-1			
<b>Lab Sample ID:</b>	171216-02		<b>Date Sampled:</b>	3/27/2017
<b>Matrix:</b>	Groundwater		<b>Date Received:</b>	3/28/2017
1,2-Dichlorobenzene	< 2.00	ug/L		3/29/2017 15:38
1,2-Dichloroethane	< 2.00	ug/L		3/29/2017 15:38
1,2-Dichloropropane	< 2.00	ug/L		3/29/2017 15:38
1,3,5-Trimethylbenzene	< 2.00	ug/L		3/29/2017 15:38
1,3-Dichlorobenzene	< 2.00	ug/L		3/29/2017 15:38
1,4-Dichlorobenzene	< 2.00	ug/L		3/29/2017 15:38
1,4-dioxane	< 20.0	ug/L		3/29/2017 15:38
2-Butanone	< 10.0	ug/L		3/29/2017 15:38
2-Hexanone	< 5.00	ug/L		3/29/2017 15:38
4-Methyl-2-pentanone	< 5.00	ug/L		3/29/2017 15:38
Acetone	< 10.0	ug/L		3/29/2017 15:38
Benzene	< 1.00	ug/L		3/29/2017 15:38
Bromochloromethane	< 5.00	ug/L		3/29/2017 15:38
Bromodichloromethane	< 2.00	ug/L		3/29/2017 15:38
Bromoform	< 5.00	ug/L		3/29/2017 15:38
Bromomethane	< 2.00	ug/L		3/29/2017 15:38
Carbon disulfide	< 2.00	ug/L		3/29/2017 15:38
Carbon Tetrachloride	< 2.00	ug/L		3/29/2017 15:38
Chlorobenzene	< 2.00	ug/L		3/29/2017 15:38
Chloroethane	< 2.00	ug/L		3/29/2017 15:38
Chloroform	< 2.00	ug/L		3/29/2017 15:38
Chloromethane	< 2.00	ug/L		3/29/2017 15:38
cis-1,2-Dichloroethene	< 2.00	ug/L		3/29/2017 15:38
cis-1,3-Dichloropropene	< 2.00	ug/L		3/29/2017 15:38
Cyclohexane	< 10.0	ug/L		3/29/2017 15:38
Dibromochloromethane	< 2.00	ug/L		3/29/2017 15:38
Dichlorodifluoromethane	< 2.00	ug/L		3/29/2017 15:38
Ethylbenzene	< 2.00	ug/L		3/29/2017 15:38
Freon 113	< 2.00	ug/L		3/29/2017 15:38
Isopropylbenzene	< 2.00	ug/L		3/29/2017 15:38
m,p-Xylene	< 2.00	ug/L		3/29/2017 15:38
Methyl acetate	< 2.00	ug/L		3/29/2017 15:38

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-1

**Lab Sample ID:** 171216-02

**Date Sampled:** 3/27/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

Methyl tert-butyl Ether	< 2.00	ug/L	3/29/2017	15:38
Methylcyclohexane	< 2.00	ug/L	3/29/2017	15:38
Methylene chloride	< 5.00	ug/L	3/29/2017	15:38
Naphthalene	< 5.00	ug/L	3/29/2017	15:38
n-Butylbenzene	< 2.00	ug/L	3/29/2017	15:38
n-Propylbenzene	< 2.00	ug/L	3/29/2017	15:38
o-Xylene	< 2.00	ug/L	3/29/2017	15:38
p-Isopropyltoluene	< 2.00	ug/L	3/29/2017	15:38
sec-Butylbenzene	< 2.00	ug/L	3/29/2017	15:38
Styrene	< 5.00	ug/L	3/29/2017	15:38
tert-Butylbenzene	< 2.00	ug/L	3/29/2017	15:38
Tetrachloroethene	< 2.00	ug/L	3/29/2017	15:38
Toluene	< 2.00	ug/L	3/29/2017	15:38
trans-1,2-Dichloroethene	< 2.00	ug/L	3/29/2017	15:38
trans-1,3-Dichloropropene	< 2.00	ug/L	3/29/2017	15:38
Trichloroethene	< 2.00	ug/L	3/29/2017	15:38
Trichlorofluoromethane	< 2.00	ug/L	3/29/2017	15:38
Vinyl chloride	< 2.00	ug/L	3/29/2017	15:38

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>108</b>	81.2 - 120		3/29/2017 15:38
4-Bromofluorobenzene	<b>85.1</b>	82.4 - 112		3/29/2017 15:38
Pentafluorobenzene	<b>93.7</b>	90.2 - 112		3/29/2017 15:38
Toluene-D8	<b>93.0</b>	89.9 - 109		3/29/2017 15:38

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:**

x40317.D

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.0100	mg/L		3/30/2017

**Method Reference(s):** SM22 4500 CN E

**Preparation Date:** 3/30/2017

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sediment

**Lab Sample ID:** 171216-03

**Date Sampled:** 3/28/2017

**Matrix:** TCLP Extract

**Date Received:** 3/28/2017

**TCLP Semi-Volatile Organics**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		4/3/2017 15:21
2,4,5-Trichlorophenol	< 80.0	ug/L	400000		4/3/2017 15:21
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		4/3/2017 15:21
2,4-Dinitrotoluene	< 40.0	ug/L	130		4/3/2017 15:21
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		4/3/2017 15:21
Hexachlorobenzene	< 40.0	ug/L	130		4/3/2017 15:21
Hexachlorobutadiene	< 40.0	ug/L	500		4/3/2017 15:21
Hexachloroethane	< 40.0	ug/L	3000		4/3/2017 15:21
Nitrobenzene	< 40.0	ug/L	2000		4/3/2017 15:21
Pentachlorophenol	< 80.0	ug/L	100000		4/3/2017 15:21
Pyridine	< 40.0	ug/L	5000		4/3/2017 15:21

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	88.3	32.4 - 137		4/3/2017 15:21
2-Fluorobiphenyl	68.2	44.7 - 111		4/3/2017 15:21
2-Fluorophenol	67.7	12 - 101		4/3/2017 15:21
Nitrobenzene-d5	72.3	52 - 99.4		4/3/2017 15:21
Phenol-d5	62.6	10 - 103		4/3/2017 15:21
Terphenyl-d14	80.4	57.9 - 113		4/3/2017 15:21

**Method Reference(s):** EPA 8270D  
EPA 1311 / 3510C  
**Preparation Date:** 3/31/2017  
**Data File:** B18451.D

**TCLP Herbicides**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
2,4,5-TP (Silvex)	<0.05	mg/L	1		3/31/2017
2,4-D	<0.50	mg/L	10		3/31/2017

**Method Reference(s):** EPA 8151A  
EPA 1311  
**Subcontractor ELAP ID:** 11148

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sediment

**Lab Sample ID:** 171216-03

**Date Sampled:** 3/28/2017

**Matrix:** TCLP Extract

**Date Received:** 3/28/2017

**TCLP Mercury**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		3/31/2017 15:23
<b>Method Reference(s):</b>	EPA 7470A EPA 1311				
<b>Preparation Date:</b>	3/31/2017				
<b>Data File:</b>	Hg170331B				

**TCLP Pesticides**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 1.00	ug/L	30		4/3/2017 15:14
Endrin	< 1.00	ug/L	20		4/3/2017 15:14
gamma-BHC (Lindane)	< 1.00	ug/L	400		4/3/2017 15:14
Heptachlor	< 1.00	ug/L	8		4/3/2017 15:14
Heptachlor Epoxide	< 1.00	ug/L	8		4/3/2017 15:14
Methoxychlor	< 1.00	ug/L	10000		4/3/2017 15:14
Toxaphene	< 10.0	ug/L	500		4/3/2017 15:14

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	<b>116</b>	10 - 111	*	4/3/2017 15:14
Tetrachloro-m-xylene (1)	<b>78.1</b>	25.5 - 73	*	4/3/2017 15:14

**Method Reference(s):** EPA 8081B  
EPA 1311 / 3510C  
**Preparation Date:** 3/31/2017

**TCLP RCRA Metals (ICP)**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5		3/31/2017 13:00
Barium	<b>1.56</b>	mg/L	100		3/31/2017 13:00
Cadmium	< 0.0250	mg/L	1		3/31/2017 13:00
Chromium	< 0.0500	mg/L	5		3/31/2017 13:00
Lead	< 0.100	mg/L	5		3/31/2017 13:00
Selenium	< 0.100	mg/L	1		3/31/2017 13:00
Silver	< 0.0500	mg/L	5		3/31/2017 13:00

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** Sediment

**Lab Sample ID:** 171216-03

**Date Sampled:** 3/28/2017

**Matrix:** TCLP Extract

**Date Received:** 3/28/2017

**Method Reference(s):** EPA 6010C  
EPA 1311 / 3005A  
**Preparation Date:** 3/31/2017  
**Data File:** 033117A

**TCLP Volatile Organics**

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		3/30/2017 20:49
1,2-Dichloroethane	< 20.0	ug/L	500		3/30/2017 20:49
2-Butanone	< 100	ug/L	200000		3/30/2017 20:49
Benzene	< 20.0	ug/L	500		3/30/2017 20:49
Carbon Tetrachloride	< 20.0	ug/L	500		3/30/2017 20:49
Chlorobenzene	< 20.0	ug/L	100000		3/30/2017 20:49
Chloroform	< 20.0	ug/L	6000		3/30/2017 20:49
Tetrachloroethene	< 20.0	ug/L	700		3/30/2017 20:49
Trichloroethene	< 20.0	ug/L	500		3/30/2017 20:49
Vinyl chloride	< 20.0	ug/L	200		3/30/2017 20:49
Surrogate	Percent Recovery		Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	101		81.2 - 120		3/30/2017 20:49
4-Bromofluorobenzene	83.2		82.4 - 112		3/30/2017 20:49
Pentafluorobenzene	87.4		90.2 - 112	*	3/30/2017 20:49
Toluene-D8	91.3		89.9 - 109		3/30/2017 20:49

**Method Reference(s):** EPA 8260C  
EPA 1311 / 5030C  
**Data File:** x40363.D





**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-2

**Lab Sample ID:** 171216-04

**Date Sampled:** 3/28/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

**Mercury**

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	< 0.000200	mg/L		3/30/2017 18:37

Method Reference(s): EPA 7470A  
Preparation Date: 3/30/2017  
Data File: Hg170330D

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	0.601	mg/L		3/29/2017 18:53
Antimony	< 0.0600	mg/L		3/29/2017 18:53
Arsenic	< 0.0100	mg/L		3/29/2017 18:53
Barium	< 0.100	mg/L		3/29/2017 18:53
Beryllium	< 0.00500	mg/L		3/29/2017 18:53
Cadmium	< 0.00500	mg/L		3/29/2017 18:53
Calcium	225	mg/L		3/29/2017 18:53
Chromium	< 0.0100	mg/L		3/29/2017 18:53
Cobalt	< 0.0500	mg/L		3/29/2017 18:53
Copper	< 0.0250	mg/L		3/29/2017 18:53
Iron	25.4	mg/L		3/29/2017 18:53
Lead	< 0.0100	mg/L		3/29/2017 18:53
Magnesium	26.0	mg/L		3/29/2017 18:53
Manganese	1.55	mg/L		3/29/2017 18:53
Nickel	< 0.0400	mg/L		3/29/2017 18:53
Potassium	7.39	mg/L		3/29/2017 18:53
Selenium	< 0.0200	mg/L		3/30/2017 17:47
Silver	< 0.0100	mg/L		3/29/2017 18:53
Sodium	11.9	mg/L		3/30/2017 17:47
Thallium	< 0.0250	mg/L		3/29/2017 18:53
Vanadium	< 0.0250	mg/L		3/29/2017 18:53
Zinc	< 0.0600	mg/L		3/29/2017 18:53

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-2

**Lab Sample ID:** 171216-04

**Date Sampled:** 3/28/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

**Method Reference(s):** EPA 6010C  
EPA 3005A  
**Preparation Date:** 3/28/2017  
**Data File:** 032917C

**PCBs**

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	ug/L		3/30/2017 14:09
PCB-1221	< 1.00	ug/L		3/30/2017 14:09
PCB-1232	< 1.00	ug/L		3/30/2017 14:09
PCB-1242	< 1.00	ug/L		3/30/2017 14:09
PCB-1248	< 1.00	ug/L		3/30/2017 14:09
PCB-1254	< 1.00	ug/L		3/30/2017 14:09
PCB-1260	< 1.00	ug/L		3/30/2017 14:09
PCB-1262	< 1.00	ug/L		3/30/2017 14:09
PCB-1268	< 1.00	ug/L		3/30/2017 14:09

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	19.0	10 - 105		3/30/2017 14:09
Tetrachloro-m-xylene	21.8	15.7 - 95.8		3/30/2017 14:09

**Method Reference(s):** EPA 8082A  
EPA 3510C  
**Preparation Date:** 3/29/2017

**Chlorinated Pesticides**

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 0.100	ug/L		3/30/2017 14:25
4,4-DDE	< 0.100	ug/L		3/30/2017 14:25
4,4-DDT	< 0.100	ug/L		3/30/2017 14:25
Aldrin	< 0.100	ug/L		3/30/2017 14:25
alpha-BHC	< 0.100	ug/L		3/30/2017 14:25
beta-BHC	< 0.100	ug/L		3/30/2017 14:25
cis-Chlordane	< 0.100	ug/L		3/30/2017 14:25
delta-BHC	< 0.100	ug/L		3/30/2017 14:25
Dieldrin	< 0.100	ug/L		3/30/2017 14:25

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-2

**Lab Sample ID:** 171216-04

**Date Sampled:** 3/28/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

Endosulfan I	< 0.100	ug/L	3/30/2017	14:25
Endosulfan II	< 0.100	ug/L	3/30/2017	14:25
Endosulfan Sulfate	< 0.100	ug/L	3/30/2017	14:25
Endrin	< 0.100	ug/L	3/30/2017	14:25
Endrin Aldehyde	< 0.100	ug/L	3/30/2017	14:25
Endrin Ketone	< 0.100	ug/L	3/30/2017	14:25
gamma-BHC (Lindane)	< 0.100	ug/L	3/30/2017	14:25
Heptachlor	< 0.100	ug/L	3/30/2017	14:25
Heptachlor Epoxide	< 0.100	ug/L	3/30/2017	14:25
Methoxychlor	< 0.100	ug/L	3/30/2017	14:25
Toxaphene	< 1.00	ug/L	3/30/2017	14:25
trans-Chlordane	< 0.100	ug/L	3/30/2017	14:25

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	28.3	10 - 111		3/30/2017 14:25
Tetrachloro-m-xylene (1)	25.9	25.5 - 73		3/30/2017 14:25

**Method Reference(s):** EPA 8081B  
EPA 3510C  
**Preparation Date:** 3/29/2017

**Semi-Volatile Organics (Base Neutrals)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 10.0	ug/L		3/31/2017 13:37
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		3/31/2017 13:37
1,2,4-Trichlorobenzene	< 10.0	ug/L		3/31/2017 13:37
1,2-Dichlorobenzene	< 10.0	ug/L		3/31/2017 13:37
1,3-Dichlorobenzene	< 10.0	ug/L		3/31/2017 13:37
1,4-Dichlorobenzene	< 10.0	ug/L		3/31/2017 13:37
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		3/31/2017 13:37
2,4-Dinitrotoluene	< 10.0	ug/L		3/31/2017 13:37
2,6-Dinitrotoluene	< 10.0	ug/L		3/31/2017 13:37
2-Chloronaphthalene	< 10.0	ug/L		3/31/2017 13:37
2-Methylnaphthalene	< 10.0	ug/L		3/31/2017 13:37
2-Nitroaniline	< 20.0	ug/L		3/31/2017 13:37

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

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**Sample Identifier:** MW-2  
**Lab Sample ID:** 171216-04 **Date Sampled:** 3/28/2017  
**Matrix:** Groundwater **Date Received:** 3/28/2017

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3,3'-Dichlorobenzidine	< 10.0	ug/L	3/31/2017 13:37
3-Nitroaniline	< 20.0	ug/L	3/31/2017 13:37
4-Bromophenyl phenyl ether	< 10.0	ug/L	3/31/2017 13:37
4-Chloroaniline	< 10.0	ug/L	3/31/2017 13:37
4-Chlorophenyl phenyl ether	< 10.0	ug/L	3/31/2017 13:37
4-Nitroaniline	< 20.0	ug/L	3/31/2017 13:37
Acenaphthene	< 10.0	ug/L	3/31/2017 13:37
Acenaphthylene	< 10.0	ug/L	3/31/2017 13:37
Acetophenone	< 10.0	ug/L	3/31/2017 13:37
Anthracene	< 10.0	ug/L	3/31/2017 13:37
Atrazine	< 10.0	ug/L	3/31/2017 13:37
Benzaldehyde	< 10.0	ug/L	3/31/2017 13:37
Benzo (a) anthracene	< 10.0	ug/L	3/31/2017 13:37
Benzo (a) pyrene	< 10.0	ug/L	3/31/2017 13:37
Benzo (b) fluoranthene	< 10.0	ug/L	3/31/2017 13:37
Benzo (g,h,i) perylene	< 10.0	ug/L	3/31/2017 13:37
Benzo (k) fluoranthene	< 10.0	ug/L	3/31/2017 13:37
Bis (2-chloroethoxy) methane	< 10.0	ug/L	3/31/2017 13:37
Bis (2-chloroethyl) ether	< 10.0	ug/L	3/31/2017 13:37
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	3/31/2017 13:37
Butylbenzylphthalate	< 10.0	ug/L	3/31/2017 13:37
Caprolactam	< 10.0	ug/L	3/31/2017 13:37
Carbazole	< 10.0	ug/L	3/31/2017 13:37
Chrysene	< 10.0	ug/L	3/31/2017 13:37
Dibenz (a,h) anthracene	< 10.0	ug/L	3/31/2017 13:37
Dibenzofuran	< 10.0	ug/L	3/31/2017 13:37
Diethyl phthalate	< 10.0	ug/L	3/31/2017 13:37
Dimethyl phthalate	< 20.0	ug/L	3/31/2017 13:37
Di-n-butyl phthalate	< 10.0	ug/L	3/31/2017 13:37
Di-n-octylphthalate	< 10.0	ug/L	3/31/2017 13:37
Fluoranthene	< 10.0	ug/L	3/31/2017 13:37
Fluorene	< 10.0	ug/L	3/31/2017 13:37

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-2

**Lab Sample ID:** 171216-04

**Date Sampled:** 3/28/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

Hexachlorobenzene	< 10.0	ug/L	3/31/2017	13:37
Hexachlorobutadiene	< 10.0	ug/L	3/31/2017	13:37
Hexachlorocyclopentadiene	< 10.0	ug/L	3/31/2017	13:37
Hexachloroethane	< 10.0	ug/L	3/31/2017	13:37
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	3/31/2017	13:37
Isophorone	< 10.0	ug/L	3/31/2017	13:37
Naphthalene	< 10.0	ug/L	3/31/2017	13:37
Nitrobenzene	< 10.0	ug/L	3/31/2017	13:37
N-Nitroso-di-n-propylamine	< 10.0	ug/L	3/31/2017	13:37
N-Nitrosodiphenylamine	< 10.0	ug/L	3/31/2017	13:37
Phenanthrene	< 10.0	ug/L	3/31/2017	13:37
Pyrene	< 10.0	ug/L	3/31/2017	13:37

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	39.8	44.7 - 111	*	3/31/2017 13:37
Nitrobenzene-d5	59.0	52 - 99.4		3/31/2017 13:37
Terphenyl-d14	78.7	57.9 - 113		3/31/2017 13:37

**Method Reference(s):** EPA 8270D  
EPA 3510C  
**Preparation Date:** 3/29/2017  
**Data File:** B18409.D

**Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 2.00	ug/L		3/29/2017 16:02
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		3/29/2017 16:02
1,1,2-Trichloroethane	< 2.00	ug/L		3/29/2017 16:02
1,1-Dichloroethane	< 2.00	ug/L		3/29/2017 16:02
1,1-Dichloroethene	< 2.00	ug/L		3/29/2017 16:02
1,2,3-Trichlorobenzene	< 5.00	ug/L		3/29/2017 16:02
1,2,4-Trichlorobenzene	< 5.00	ug/L		3/29/2017 16:02
1,2,4-Trimethylbenzene	< 2.00	ug/L		3/29/2017 16:02
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		3/29/2017 16:02
1,2-Dibromoethane	< 2.00	ug/L		3/29/2017 16:02

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

<b>Sample Identifier:</b>	MW-2			
<b>Lab Sample ID:</b>	171216-04		<b>Date Sampled:</b>	3/28/2017
<b>Matrix:</b>	Groundwater		<b>Date Received:</b>	3/28/2017
1,2-Dichlorobenzene	< 2.00	ug/L	3/29/2017	16:02
1,2-Dichloroethane	< 2.00	ug/L	3/29/2017	16:02
1,2-Dichloropropane	< 2.00	ug/L	3/29/2017	16:02
1,3,5-Trimethylbenzene	< 2.00	ug/L	3/29/2017	16:02
1,3-Dichlorobenzene	< 2.00	ug/L	3/29/2017	16:02
1,4-Dichlorobenzene	< 2.00	ug/L	3/29/2017	16:02
1,4-dioxane	< 20.0	ug/L	3/29/2017	16:02
2-Butanone	< 10.0	ug/L	3/29/2017	16:02
2-Hexanone	< 5.00	ug/L	3/29/2017	16:02
4-Methyl-2-pentanone	< 5.00	ug/L	3/29/2017	16:02
Acetone	< 10.0	ug/L	3/29/2017	16:02
Benzene	< 1.00	ug/L	3/29/2017	16:02
Bromochloromethane	< 5.00	ug/L	3/29/2017	16:02
Bromodichloromethane	< 2.00	ug/L	3/29/2017	16:02
Bromoform	< 5.00	ug/L	3/29/2017	16:02
Bromomethane	< 2.00	ug/L	3/29/2017	16:02
Carbon disulfide	< 2.00	ug/L	3/29/2017	16:02
Carbon Tetrachloride	< 2.00	ug/L	3/29/2017	16:02
Chlorobenzene	< 2.00	ug/L	3/29/2017	16:02
Chloroethane	< 2.00	ug/L	3/29/2017	16:02
Chloroform	< 2.00	ug/L	3/29/2017	16:02
Chloromethane	< 2.00	ug/L	3/29/2017	16:02
cis-1,2-Dichloroethene	< 2.00	ug/L	3/29/2017	16:02
cis-1,3-Dichloropropene	< 2.00	ug/L	3/29/2017	16:02
Cyclohexane	< 10.0	ug/L	3/29/2017	16:02
Dibromochloromethane	< 2.00	ug/L	3/29/2017	16:02
Dichlorodifluoromethane	< 2.00	ug/L	3/29/2017	16:02
Ethylbenzene	< 2.00	ug/L	3/29/2017	16:02
Freon 113	< 2.00	ug/L	3/29/2017	16:02
Isopropylbenzene	< 2.00	ug/L	3/29/2017	16:02
m,p-Xylene	< 2.00	ug/L	3/29/2017	16:02
Methyl acetate	< 2.00	ug/L	3/29/2017	16:02

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**Client:** Bergmann Associates

**Project Reference:** Port Of Albany

**Sample Identifier:** MW-2

**Lab Sample ID:** 171216-04

**Date Sampled:** 3/28/2017

**Matrix:** Groundwater

**Date Received:** 3/28/2017

Methyl tert-butyl Ether	< 2.00	ug/L	3/29/2017	16:02
Methylcyclohexane	< 2.00	ug/L	3/29/2017	16:02
Methylene chloride	< 5.00	ug/L	3/29/2017	16:02
Naphthalene	< 5.00	ug/L	3/29/2017	16:02
n-Butylbenzene	< 2.00	ug/L	3/29/2017	16:02
n-Propylbenzene	< 2.00	ug/L	3/29/2017	16:02
o-Xylene	< 2.00	ug/L	3/29/2017	16:02
p-Isopropyltoluene	< 2.00	ug/L	3/29/2017	16:02
sec-Butylbenzene	< 2.00	ug/L	3/29/2017	16:02
Styrene	< 5.00	ug/L	3/29/2017	16:02
tert-Butylbenzene	< 2.00	ug/L	3/29/2017	16:02
Tetrachloroethene	< 2.00	ug/L	3/29/2017	16:02
Toluene	< 2.00	ug/L	3/29/2017	16:02
trans-1,2-Dichloroethene	< 2.00	ug/L	3/29/2017	16:02
trans-1,3-Dichloropropene	< 2.00	ug/L	3/29/2017	16:02
Trichloroethene	< 2.00	ug/L	3/29/2017	16:02
Trichlorofluoromethane	< 2.00	ug/L	3/29/2017	16:02
Vinyl chloride	< 2.00	ug/L	3/29/2017	16:02

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>108</b>	81.2 - 120		3/29/2017 16:02
4-Bromofluorobenzene	<b>85.4</b>	82.4 - 112		3/29/2017 16:02
Pentafluorobenzene	<b>93.5</b>	90.2 - 112		3/29/2017 16:02
Toluene-D8	<b>95.5</b>	89.9 - 109		3/29/2017 16:02

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:**

x40318.D

**Total Cyanide**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Cyanide, Total	< 0.0100	mg/L		3/30/2017

**Method Reference(s):** SM22 4500 CN E

**Preparation Date:** 3/30/2017

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.





## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### **Warranty.**

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### **Scope and Compensation.**

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### **Prices.**

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### **Limitations of Liability.**

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### **Hazard Disclosure.**

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### **Sample Handling.**

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### **Legal Responsibility.**

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### **Assignment.**

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### **Force Majeure.**

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### **Law.**

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

# CHAIN OF CUSTODY



<b>REPORT TO:</b>		<b>INVOICE TO:</b>	
<b>CLIENT:</b> <i>Bergman Associates</i>	<b>ADDRESS:</b> <i>9th E. Broad St Suite 200</i>	<b>CITY:</b> <i>Rochester NY</i>	<b>STATE:</b> <i>NY</i>
<b>ADDRESS:</b> <i>9th E. Broad St Suite 200</i>	<b>CITY:</b> <i>Rochester NY</i>	<b>STATE:</b> <i>NY</i>	<b>ZIP:</b> <i>14604</i>
<b>CITY:</b> <i>Rochester NY</i>	<b>STATE:</b> <i>NY</i>	<b>ZIP:</b> <i>14604</i>	<b>PHONE:</b> <i>585-498-7748</i>
<b>PHONE:</b> <i>585-498-7748</i>	<b>ATTN:</b> <i>Meagan Borruso, Steve Denno</i>	<b>CLIENT:</b> <i>Bergman Associates</i>	<b>ADDRESS:</b> <i>9th E. Broad St Suite 200</i>
<b>ATTN:</b> <i>Meagan Borruso, Steve Denno</i>	<b>ADDRESS:</b> <i>9th E. Broad St Suite 200</i>	<b>CITY:</b> <i>Rochester NY</i>	<b>STATE:</b> <i>NY</i>
<b>PHONE:</b> <i>585-498-7748</i>	<b>CITY:</b> <i>Rochester NY</i>	<b>STATE:</b> <i>NY</i>	<b>ZIP:</b> <i>14604</i>
<b>ATTN:</b> <i>June Aquette</i>	<b>PHONE:</b> <i>585-232-5135</i>	<b>ATTN:</b> <i>June Aquette</i>	<b>LAB PROJECT ID:</b> <i>171216</i>
<b>Matrix Codes:</b> AQ - Aqueous Liquid NQ - Non-Aqueous Liquid	WA - Water WG - Groundwater	DW - Drinking Water WW - Wastewater	<b>Quotation #:</b> <i>MS 0201174</i>
		SO - Soil SL - Sludge	<b>Email:</b> <i>mborruso@bergmanpc.com</i> <i>stedenno@bergmanpc.com</i>
		SD - Solid PT - Paint WP - Wipe CK - Caulk AR - Air	

DATE COLLECTED	TIME COLLECTED	C O M P O S I T I O N	G R A B	SAMPLE IDENTIFIER	M A C A D R E S	C O N T A M I N A T I O N S	REQUESTED ANALYSIS	REMARKS	PARADIGM LAB SAMPLE NUMBER
3/27/2017	1542		X	MW-3	GW	X	VOC/CLISTARS SVOC B/N Pest PCB Total Cyanide TAL Metals TCLP VOA (Sew) VOA metals Pest/Herb		01
3/27/2017	1627		X	MW-1	GW	X			02
3/28/2017	0900		X	Sediment	SO	X			03
3/28/2017	0940		X	MW-2	GW	X		TURBID SAMPLE <i>3/29/17</i> <i>2 X Dog Turn for GW</i> <i>Samples per SD - due 3/31</i> <i>6/3/29/17</i>	04

<b>Turnaround Time</b>		<b>Report Supplements</b>	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day	<input checked="" type="checkbox"/>	None Required	<input checked="" type="checkbox"/>
10 day	<input type="checkbox"/>	Batch QC	<input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A	<input type="checkbox"/>
Rush 2 day	<input type="checkbox"/>	Category B	<input checked="" type="checkbox"/>
Rush 1 day	<input type="checkbox"/>	Other	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other EDD	<input type="checkbox"/>
please indicate date needed: _____		please indicate EDD needed: _____	

<b>Sampled By:</b> <i>Meagan Borruso</i>	<b>Date/Time:</b> <i>3/28/2017 1430</i>	<b>Total Cost:</b>
<b>Relinquished By:</b> <i>Meagan Borruso</i>	<b>Date/Time:</b> <i>3/28/2017 1430</i>	
<b>Received By:</b> <i>June Aquette</i>	<b>Date/Time:</b> <i>3/28/17 15:42</i>	<b>P.I.F.:</b>
<b>Received @ Lab By:</b> <i>June Aquette</i>	<b>Date/Time:</b> <i>3/28/17 15:10</i>	

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.



**Chain of Custody Supplement**

Client: Bergmann Associates Completed by: Glenn Pezzulo  
 Lab Project ID: 171216 Date: 3/28/17

**Sample Condition Requirements**  
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<u>portion of soil sample transferred to 4oz glass jar for TCLP Herbicides sub-out.</u>		
Transferred to method-compliant container	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>mg to g<sub>2</sub> sub-out</u>		
Headspace (<1 mL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>VOA (water)</u>		
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>VOA metals (water) TCN</u>		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>3°C iced 3/28/17 15:10</u> metals		
Sufficient Sample Quantity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			



179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2630 Fax (585) 647-3311

# CHAIN OF CUSTODY

REPORT TO: INVOICE TO:

COMPANY: Paradigm Environmental	ADDRESS: 179 Lake Avenue	CITY: Rochester	STATE: NY	ZIP: 14608	PHONE:	FAX:
COMPANY: Same	ADDRESS:	CITY:	STATE:	ZIP:	PHONE:	FAX:
ATTN: Reporting	ATTN: Accounts Payable	LAB PROJECT #: CLIENT PROJECT #:				
COMMENTS: Please email results to reporting@paradigmenv.com						
REQUESTED ANALYSIS						
Date Due: 4/5/17						

1 of 1  
L1709404

11148

Serial No:04041713:11

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAMINANTS	REMARKS	PARADIGM LAB SAMPLE NUMBER
13/28/17	09:00			171016-03	S:1	X TCLP Herbicides		
2								
3								
4								
5								
6								
7								
8								
9								
10								

\*LAB USE ONLY BELOW THIS LINE\*\*  
Sample Condition: Per NELAC/LAP 210/241/242/243/244

Receipt Parameter: NELAC Compliance

Container Type:  Y  N

Preservation:  Y  N

Holding Time:  Y  N

Comments: 4.0°C Temperature:  Y  N

Comments:  Y  N

Client

Sampled By: [Signature] Date/Time: 3/28/17 16:00

Relinquished By: [Signature] Date/Time: 3/28/17 18:15

Received By: [Signature] Date/Time: 3/28/17 18:15

Received @ Lab By: [Signature] Date/Time: 3/28/17 05:30

Total Cost:

P.L.F.

**APPENDIX E**  
**LIMITATIONS**

DRAFT



## **LIMITATIONS FOR REMEDIATION PROJECT WORK**

1. While additional explorations will always better define the nature and extent of contamination at any given site, it is our professional opinion that soil and sediment at Site have been sampled and analyzed for VOCs, SVOCs, Metals, Pesticides, PCBs.
2. Environmental impairment of a property may result from activities such as illegal, unreported dumping, or sudden spilling of hazardous waste or materials. It should be noted that the presence of contaminants at a particular property may not always be apparent, and the completion of a Phase I, Phase II Environmental Site Assessment at select areas and sample intervals cannot provide a guarantee that hazardous waste or materials do not exist in media tested or at other areas on the Site that were not tested.
3. It should be noted that no subsurface exploration can be thorough enough to exclude the possible presence of, variation of chemical compounds, hazardous materials or wastes at a given site. In cases where contaminants have not been discovered through exploration, this should not be construed as a guarantee that contaminants do not exist. At a given site, environmental conditions may exist that cannot be identified by visual observation. Where sample collection and testing have been performed, Bergmann's professional opinions are based in part on the interpretation of data from discrete sampling locations that may not represent conditions at unsampled locations.
4. It is the nature of environmental site assessment work for soil conditions observed during future remediation to vary from the conditions identified during the site assessment explorations, even when the exploration program conforms to industry standards.
5. The abandon drums and rail cars should be removed and transported off site for disposal at a NYSDEC approved landfill.





# ATLANTIC TESTING LABORATORIES

*WBE certified company*

**Albany**  
22 Corporate Drive  
Clifton Park, NY 12065  
518-383-9144 (T)  
atlantictesting.com

October 22, 2020

McFarland-Johnson, Inc.  
60 Railroad Place, Suite 402  
Saratoga Springs, New York 12866

Attn: David Rosen

Re: Environmental Subsurface Investigation and Soil Sampling  
Port of Albany Expansion Project  
Beacon Island Parcel  
Bethlehem, Albany County, New York  
MJ Project No. 18641.02  
ATL Report No. AT5596CE-04-10-20

Ladies/Gentlemen:

Enclosed is a copy of the Environmental Subsurface Investigation and Soil Sampling report prepared for the referenced site. This project was completed in accordance with the scope of work outlined in our contract (AT5998-245-03-20), dated March 26, 2020.

Please contact our office should you have any questions, or if we may be of further assistance.

Sincerely,  
*ATLANTIC TESTING LABORATORIES, Limited*

Cheyenne J. Dashnaw, P.E.  
Senior Engineer

CJD/mc

cc: Georgie Nugent, McFarland-Johnson, Inc.

**ENVIRONMENTAL SUBSURFACE INVESTIGATION AND SOIL SAMPLING**

**PORT OF ALBANY EXPANSION PROJECT  
BEACON ISLAND PARCEL  
BETHLEHEM, ALBANY COUNTY, NEW YORK**



*WBE certified company*

**PREPARED FOR:**

**McFarland-Johnson, Inc.  
60 Railroad Place, Suite 402  
Saratoga Springs, New York 12866**

**PREPARED BY:**

**Atlantic Testing Laboratories, Limited  
22 Corporate Drive  
Clifton Park, New York 12065**

**ATL REPORT NO. AT5596CE-04-10-20**

**OCTOBER 22, 2020**

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## **1.0 INTRODUCTION**

In accordance with Atlantic Testing Laboratories, Limited (ATL) contract number AT5998-245-03-20, dated March 26, 2020, an environmental subsurface investigation and soil sampling were performed at the subject site from September 14 through 17, 2020. Soil sampling and analysis services were conducted to characterize soil conditions in areas throughout the site, prior to planned site redevelopment.

## **2.0 PROJECT DESCRIPTION**

### **2.1 Site Description**

The project site is the Beacon Island parcel located to the east of River Road (County Route 144) and along the west side of the Hudson River, in the Town of Bethlehem, Albany County, New York. The Beacon Island parcel is comprised of approximately 80 acres, and is the site of a planned expansion for the Port of Albany. A Site Location Map, showing the approximate location of the subject site, is included in Appendix A.

### **2.2 Background Information**

Information that was provided to ATL prior to the environmental subsurface investigation and soil sampling included a draft Phase II Environmental Site Assessment (ESA) report, prepared by Bergmann Associates for the Port of Albany and dated April 6, 2017. The Phase II ESA included the advancement of 12 test pits and 8 borings, and the installation of temporary monitor wells at 3 of the boring locations.

The 12 test pits from the previous site assessment were advanced to 12 feet below ground surface (bgs), with 1 terminated at 10 feet due to a clay layer that could not be penetrated with the excavation equipment. Information in the draft Phase II ESA report indicates that coal ash was observed throughout the depths for 3 of the test pits and a fourth test pit exhibited the presence of railroad ties covered in a black tar-like substance at depths of 8 to 12 feet bgs.

The 8 borings from the previous site assessment were advanced to depths ranging from 50 to 150 feet bgs, with the environmental sampling and screening limited to the initial 10 to 18 feet. Of the 8 borings, 7 exhibited evidence of coal ash. A surface soil sample was collected from the initial 2 inches for each boring. Subsurface soil samples were also collected from the borings at varying depths. There were 3 temporary monitor wells installed for collection of groundwater samples. The soil and groundwater samples were laboratory analyzed for volatile organic compounds (VOC), semi-VOC, cyanide, pesticides, polychlorinated biphenyls (PCB), and target compound list (TCL) metals. With the exception of metals, target compounds for the referenced analytical parameters were non-detect for each of the soil and groundwater samples.

In addition to the previous Phase II ESA report, a Soil Sampling and Analysis Plan was prepared prior to the environmental subsurface investigation and soil sampling. This Soil Sampling and Analysis Plan was prepared by ATL and dated June 17, 2020 (reference ATL Report No. AT5596CE-01-05-20 Revision 2). The Soil Sampling and Analysis Plan was prepared to describe the previously investigated site conditions, the areas of scheduled excavations for proposed site redevelopment, and the methods to be used for the environmental subsurface investigation and soil sampling.

## **2.3 Scope of Work**

The environmental subsurface investigation and soil sampling were conducted in general accordance with the Soil Sampling and Analysis Plan prepared by ATL (reference ATL Report No, AT5596CE-01-05-20 Revision 2, dated June 17, 2020). The environmental subsurface investigation and soil sampling included the advancement of subsurface probes to assess the general subsurface conditions at the Beacon Island parcel, and to collect soil samples in consideration of reuse as a cover material. A total of 45 probes were advanced at the subject site, and 22 grab and 11 composite soil samples were collected for subsequent laboratory analysis.

## **3.0 SUBSURFACE INVESTIGATION**

### **3.1 Soil Probes**

The environmental subsurface investigation included the advancement of 45 soil probes. The soil probes were advanced to depths between 5.1 and 20 feet below ground surface (bgs). The soil probes were advanced using a Geoprobe Model 7822DT hydraulic powered hammer push/percussion probing machine.

Soil samples were collected continuously throughout each probe, utilizing Geoprobe Systems' Macro-Core Soil Sampler system, by advancing a 1.75-inch diameter by 60-inch long steel sampling barrel equipped with expendable PVC liners. The recovered soil samples were examined for detectable odors and visual indicators of petroleum product and/or volatile organic compounds (VOC). In addition, the samples were field screened for the measurable presence of VOC, using a portable photoionization detector (PID) equipped with a 10.6 eV lamp.

The locations of the soil probes were selected to include representative accessible areas of scheduled cuts for sampling and analysis, and other areas of the subject site to supplement information available from the previous Phase II ESA. A Probe Location Plan, depicting approximate probe locations and pertinent site features, is contained in Appendix B. Probe locations may vary from the approximate locations shown in the Soil Sampling and Analysis Plan, based on field conditions encountered and the actual site accessibility with the Geoprobe equipment at the time of the subsurface investigation.

Probe logs, containing a description of the subsurface stratigraphy encountered at each probe location and PID results, are contained in Appendix C. Table D-1, located in Appendix D, summarizes general soil probe information.

### **3.2 Subsurface Conditions**

ATL's on-site field representative visually classified the soil samples recovered from the probes in general accordance with ASTM Method D 2488, prepared a log of soil types encountered in the investigation, and recorded pertinent observations regarding probing conditions, types of soil encountered, approximate depth to water observations during probing, and field screening results. Soil descriptions included the following properties: density of sands and gravels, consistency of silts and clays (as determined from the penetration resistance from a thumb nail), moisture content, and color. The presence of foreign substances (e.g., debris) was also noted when applicable. Soil Probe Logs are contained in Appendix C.

Soil conditions encountered during the course of the subsurface investigation generally consisted of sand and clay materials, with varying portions of silt and gravel. Ash material was also identified for multiple probe locations.

## **4.0 SOIL SAMPLING AND LABORATORY ANALYSIS**

### **4.1 Sampling Methodology**

A total of 33 selected soil samples were submitted to Alpha Analytical, located in Westborough, Massachusetts, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) approved laboratory (ELAP No. 11148). Of the 33 collected soil samples, 22 were laboratory analyzed for VOC, in accordance with EPA Method 8260 plus methyl tertiary butyl ether (MTBE). The remaining 11 samples were laboratory analyzed for semi-VOC, in accordance with EPA Method 8270 (base/neutral extractables); polychlorinated biphenyls (PCB), in accordance with EPA Method 8082; target analyte list (TAL) metals; hexavalent chromium; cyanide; and pesticides.

Soil samples submitted to Alpha Analytical were collected in clean laboratory glassware, with Teflon-lined lids, in accordance with industry standard protocol. Disposable sampling equipment (i.e., plastic bags, nitrile gloves) was utilized to collect samples. Samples were stored in a cooler, with ice, and maintained at approximately 4°C during storage and delivery to the laboratory. In addition, gravel larger than ½-inch in diameter, if encountered, was excluded from samples retained for laboratory analysis.

### **4.2 Summary of Laboratory Data**

A copy of the laboratory report and associated sample custody documentation for the referenced samples is contained in Appendix E. Tables F-1 and F-2, contained in Appendix F, summarizes analytical results for the soil samples that were collected.

## **5.0 SUMMARY OF FINDINGS**

The subsurface investigation identified various locations where ash material is present. The ash material was predominantly observed on the west side of the subject site. No obvious visual or olfactive evidence of petroleum or chemical-related contamination was observed at the locations investigated.

As indicated in Table F-1 of Appendix F, laboratory analysis identified detected concentrations for certain target VOC in 8 of the 22 grab soil samples. With the exception of acetone for the samples from Borings 45 and 13, the reported concentrations for these compounds were below the NYSDEC Unrestricted Soil Cleanup Objectives (SCO) and below the 6 NYCRR Part 360 fill material pre-determined beneficial use criteria

As indicated in Table F-2 of Appendix F, laboratory analysis of the composite soil samples identified detectable concentrations of various target semi-VOC, PCB, pesticides, and metals, some of which exceeded the NYSDEC Unrestricted Use Soil Cleanup Objectives (SCO) per 6 NYCRR Part 375 or NYSDEC CP-51, but did not exceed the 6 NYCRR Part 375/NYSDEC CP-360 Commercial or Industrial Soil Cleanup Levels with the exception of arsenic for the sample from Borings 10, 11, and 12. Hexavalent chromium and cyanide were not detected in any of the samples analyzed. As compared to the 6 NYCRR Part 360 fill material beneficial use criteria, all detectable compounds satisfied the limits for the

general fill, restricted-use fill, and limited-use fill with the exception of arsenic for the sample from Borings 10, 11, and 12.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

The following is a summary of findings from the environmental subsurface investigation and soil sampling performed by ATL. Recommendations for further investigation and/or remediation activities are also provided, as warranted.

Ash material at the subject site is present in a widespread condition, and not considered practical for complete excavation and disposal at this time. Based on correspondence with project representatives, it is our understanding that it is intended to manage the ash material in-place via application of a soil cover system. Areas that are scheduled for excavation would require disposal of any ash material that is removed. Based on the analytical results for soil samples collected from areas of the site without the ash material, it is anticipated that the on-site soil could be used as part of the soil cover system. A Soil Management Plan, detailing procedures that can be implemented at the subject site, will be prepared by ATL and submitted in a separate report.



**APPENDIX A**  
**SITE LOCATION MAP**



**Site Location Map**

Drawn by:  
TSP

Scale:  
Not to scale

Project No.:  
AT5596

Date:  
October 2020

**Beacon Island Parcel  
Bethlehem, Albany County, New York**

***ATLANTIC TESTING LABORATORIES, Limited***

Albany, NY  
Poughkeepsie,

Binghamton, NY  
Syracuse, NY

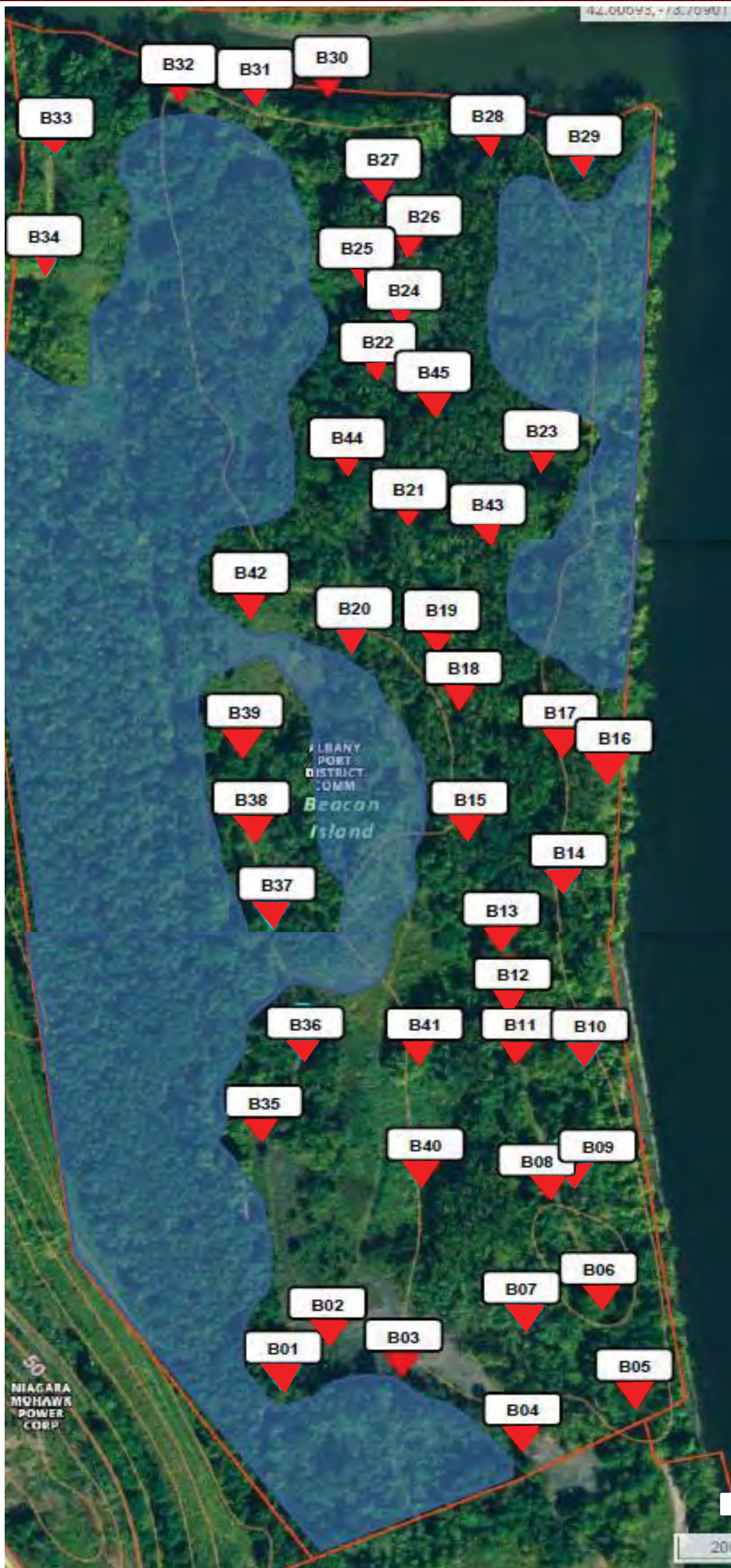
Canton, NY  
Rochester, NY

Elmira, NY  
Utica, NY

Plattsburgh, NY  
Watertown, NY

**APPENDIX B**  
**PROBE LOCATION PLAN**





**Key:**

**B##**

Approximate Probe Location

<p align="center"><b>Probe Location Plan</b></p>	<p>Drawn by: MAC</p>	<p>Scale: Not to scale</p>	<p>Project No.: AT5596</p>	<p>Date: October 2020</p>
<p align="center"><b>Beacon Island Parcel Bethlehem, Albany County, New York</b></p>	<p align="center"><b>ATLANTIC TESTING LABORATORIES, Limited</b></p> <p>Albany, NY    Binghamton, NY    Canton, NY    Elmira, NY    Plattsburgh, NY  Poughkeepsie, NY    Syracuse, NY    Rochester, NY    Utica, NY    Watertown, NY</p>			

**APPENDIX C**  
**PROBE LOGS**



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-1  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 15, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	40"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 2'	Gray ASH
2	ND		2 - 5'	Dark Gray CLAY; and cmf SAND
3	ND			
4	ND			
5	ND	48"	5 - 6'	Gray cmf SAND
6	ND		6 - 10'	Gray CLAY; little cmf SAND; little cmf GRAVEL
7	ND			
8	ND			
9	ND			
10	ND	48"	10 - 12'	Brown cmf Sand
11	ND			
12	ND		12 - 15'	Dark Gray CLAY; and cmf SAND
13	ND			
14	ND			
15	ND	24"	15 to 20'	Gray CLAY; little cmf SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-2  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 15, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	18"	0 - 5'	Black ASH
1	ND			
2	ND			
3	ND			
4	ND			
5	ND	24"	5 - 10'	Black ASH
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	60"	10 to 15'	Black ASH
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 to 20'	Black ASH
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection





# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-3  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 15, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	24"	0 - 5'	Black ASH
1	ND			
2	ND			
3	ND			
4	ND			
5	ND	24"	5 - 10'	Black ASH
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	36"	10 to 15'	Black ASH
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 18'	Black ASH
16	ND		18 to 20	Black Clay
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-4  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 15, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	30"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 5'	Black ASH
2	ND			
3	ND			
4	ND			
5	ND	30"	5 - 10'	Black ASH
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	30"	10 - 15'	Black ASH
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 17.5'	Black ASH
16	ND			
17	ND			
18	ND		17.5 to 20'	Black Clay
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-5  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 15, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 to 1.5'	Brown f SAND
2	ND		1.5 - 5'	Gray mf SAND
3	ND	60"		
4	ND			
5	ND		5 - 10'	Dark Gray f SAND
6	ND	60"		
7	ND			
8	ND			
9	ND	60"		
10	ND		10 - 10.5'	Dark Gray f SAND
11	ND		10.5 - 11'	Brown mf SAND
12	ND	60"	11 - 14'	Dark Gray m SAND; little f GRAVEL
13	ND			
14	ND		14 - 15'	Dark Gray mf SAND; little mf GRAVEL; trace DEBRIS
15	ND	60"	15 - 17.5'	Gray mf SAND; little mf GRAVEL
16	ND			
17	ND		17.5 - 20'	Gray Clay
18	ND	60"		
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-6  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 15, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	50"	0 - 0.5'	Brown TOPSOIL; little mf SAND
1	ND		0.5 - 3'	Gray CLAY
2	ND			
3	ND		3 - 5'	Black mf SAND
4	ND			
5	ND	54"	5 - 10'	Gray mf SAND
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	60"	10 - 12'	Gray mf SAND; little f GRAVEL
11	ND			
12	ND		12 - 15'	Gray CLAY
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-7  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 15, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	36"	0 - 5'	Black ASH
1	ND			
2	ND			
3	ND			
4	ND			
5	ND	48"	5 - 10'	Black ASH
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	56"	10 - 11'	Black ASH
11	ND		11 - 15'	Brown Sand; some Clay
12	ND			
13	ND			
14	ND			
15	ND	42"	15 - 15.5'	Brown CLAY
16	ND		16 - 20'	Brown/Black CLAY; little SAND
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-8  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 15, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 3'	Gray Clay; little mf SAND
2	ND			
3	ND		3 - 5'	Gray CLAY
4	ND			
5	ND	60"	5 - 8'	Black mf SAND; little SILT
6	ND			
7	ND			
8	ND		8 - 10'	Brown m mf SAND; little SILT
9	ND			
10	ND	60"	10 - 15'	Brown f SAND
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	8"	15 - 20'	Brown cmf SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-9  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 15, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	7.2		0.5 - 2.5'	Brown mf SAND; some ASH
2	18.2		2.5' - 5'	Gray CLAY
3	1.2			
4	ND	12"	5 - 10'	Gray CLAY; little cmf SAND
5	ND			
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	18"	10 - 15'	Gray CLAY
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15' - 20'	Black CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection





# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-10  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services  
 McFarland-Johnson  
 Port of Albany- Beacon Island Parcel  
 Bethlehem, Albany County, New York  
 ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	42"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 4'	Brown mf SAND
2	ND			
3	ND			
4	ND		4 - 5'	Brown mf SAND; trace CLAY
5	ND	56"	5' - 7.5'	Brown mf SAND; little CLAY
6	ND			
7	ND		7.5 - 10'	Brown CLAY; little f SAND
8	ND			
9	ND			
10	ND	24"	10 - 15'	Brown Clay; little f SAND
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY; little cmf SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-11  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	56"	0 - 0.5'	Black TOPSOIL
1	ND		0.5 - 5'	Brown/Black cmf SAND
2	ND			
3	ND			
4	ND			
5	ND	60"	5 - 8'	Black CLAY; trace DEBRIS
6	ND			
7	ND			
8	ND		8 - 10'	Black ASH
9	ND			
10	ND	30"	10 - 11.5'	Black ASH
11	ND			
12	ND		11.5 - 15'	Black/Brown mf SAND
13	ND			
14	ND			
15	ND	30"	15 - 20'	Brown/Black f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-12  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 5'	Black f SAND; trace f GRAVEL
2	ND			
3	ND			
4	ND			
5	ND	60"	5 - 10'	Black f SAND
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	48"	10 - 11.5'	Black f SAND
11	ND		11.5 - 15'	Gray Clay
12	ND			
13	ND			
14	ND			
15	ND	54"	15 - 20'	Black/Brown CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-13  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 2.5'	Brown mf SAND
2	ND		2.5 - 5'	Black mf SAND; trace CLAY
3	ND			
4	ND			
5	ND	48"	5 - 10'	Black/Gray mf SAND; little CLAY
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	60"	10 - 15'	Black CLAY
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	42"	15 - 20'	Black CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-14  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	56"	0 - 0.5'	Black TOPSOIL
			0.5 - 1'	Brown cmf SAND
1	ND		1 - 3'	Brown mf SAND
2	ND			
3	ND		3 - 5'	Brown f SAND
4	ND			
5	ND	30"	5 - 10'	Brown f SAND
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	30"	10 - 15'	Brown f SAND
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-15  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	54"	0 - 1.5'	Black TOPSOIL
1	ND		1.5 - 5'	Gray CLAY; little SAND
2	ND			
3	ND			
4	ND			
5	ND	30"	5 - 5.5'	Black CLAY; trace f SAND
			5.5 - 6.5'	Brown f SAND
6	ND		6.5 - 10'	Gray CLAY
7	ND			
8	ND			
9	ND	30"	10 - 12'	Black CLAY; trace m SAND
10	ND			
11	ND		12 - 15'	Gray CLAY
12	ND			
13	ND			
14	ND	54"	15 - 18'	Gray CLAY
15	ND			
16	ND		18 - 20'	Gray/Brown CLAY; little f SAND
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-16  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	36"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 2'	Brown f SAND; trace f GRAVEL
2	ND		2 - 5'	Brown f SAND
3	ND			
4	ND			
5	ND	30"	5 - 10'	Brown f SAND; f GRAVEL
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	36"	10 - 10.5'	Brown f SAND
11	ND		10.5 - 14'	Brown CLAY; trace f SAND
12	ND			
13	ND			
14	ND		14 - 15'	Gray CLAY
15	ND	36"	15' - 20'	Brown/Gray CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection





# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-17  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 1'	Brown TOPSOIL
1	ND		1 - 3'	Gray CLAY
2	ND		3 - 5'	Brown CLAY
3	ND			
4	ND			
5	ND	48"	5 - 10'	Brown/Gray CLAY
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	48"	10 - 15'	Brown/Gray CLAY
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	48"	15 - 20'	Brown/Gray CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-18  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services  
 McFarland-Johnson  
 Port of Albany- Beacon Island Parcel  
 Bethlehem, Albany County, New York  
 ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Black TOPSOIL
1	ND		0.5 - 2'	Black mf SAND
2	ND		2 - 5'	Gray CLAY; trace f GRAVEL
3	ND			
4	ND			
5	ND	60"	5 - 6'	Black CLAY
6	ND		6 - 10'	Gray CLAY
7	ND			
8	ND			
9	ND			
10	ND	60"	10 - 15'	Gray CLAY
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-19  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 1'	Brown TOPSOIL
1	ND		1 - 2'	Gray CLAY; some f SAND
2	ND		2 - 5'	Brown m SAND
3	ND			
4	ND			
5	ND	60"	5 - 5.5'	Brown m SAND
			5.5 - 10'	Gray CLAY
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	24"	10 - 10.5'	Gray CLAY
			10.5 - 12'	Brown m SAND; some CLAY
11	ND			
12	ND		12 - 15'	Gray CLAY
13	ND			
14	ND			
15	ND	54"	15 - 20'	Gray CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-20  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 2'	Black ASH
1	ND			
2	ND		2 - 5'	Gray CLAY
3	ND			
4	ND			
5	ND	60"	5 - 9'	Gray CLAY
6	ND			
7	ND			
8	ND		9 - 10'	Brown m SAND
9	ND			
10	ND	24"	10 - 11.5'	Black CLAY
11	ND			
12	ND		11.5 - 15'	Brown mf SAND
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-21  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	56"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 5'	Gray CLAY
2	ND			
3	ND			
4	ND			
5	ND	60"	5 - 10'	Gray CLAY
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	30"	10 - 11.5'	Gray CLAY
11	ND		11.5 - 15'	Gray f SAND
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 17'	Gray f SAND
16	ND			
17	ND		17 - 20'	Gray CLAY
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-22  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services  
 McFarland-Johnson  
 Port of Albany- Beacon Island Parcel  
 Bethlehem, Albany County, New York  
 ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 3.5'	Brown mf SAND; some f GRAVEL
2	ND		3.5 - 5'	Gray CLAY; some f GRAVEL
3	ND			
4	ND			
5	ND	48"	5 - 5.5'	Gray CLAY; some f GRAVEL
6	ND		5.5 - 8'	Brown/Gray CLAY
7	ND		8 - 10'	Brown f SAND
8	ND			
9	ND			
10	ND	60"	10 - 11'	Brown f SAND
11	ND		11 - 15'	Gray CLAY
12	ND		15 - 20'	Gray CLAY
13	ND			
14	ND			
15	ND			
16	ND	60"		
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-23  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Black TOPSOIL
1	ND		0.5 - 2.5'	Black f SAND
2	ND		2.5 - 5'	Brown f SAND
3	ND			
4	ND			
5	ND	40"	5 - 5.5'	Brown f SAND
6	ND		5.5 - 10'	Black CLAY
7	ND			
8	ND			
9	ND			
10	ND	60"	10 - 15'	Gray CLAY
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection





# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-24  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 5'	Brown mf SAND; some f GRAVEL; trace CLAY
2	ND			
3	ND			
4	ND			
5	ND	60"	5 - 5.5'	Brown mf SAND; some f GRAVEL; trace CLAY
6	ND		5.5 - 10'	Gray CLAY
7	ND			
8	ND			
9	ND			
10	ND	24"	10 - 15'	Gray CLAY
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	18"	15 - 20'	Gray CLAY; some f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-25  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 3'	Brown f SAND
2	ND			
3	ND		3 - 5'	Brown f SAND; little CLAY
4	ND			
5	ND	60"	5 - 7'	Brown f SAND; little CLAY
6	ND			
7	ND		7 - 10'	Gray CLAY
8	ND			
9	ND			
10	ND	36"	10 - 12.5'	Gray CLAY
11	ND			
12	ND		12.5 - 15'	Brown f SAND
13	ND			
14	ND			
15	ND	42"	15 - 20'	Gray CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-26  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 5'	Brown f SAND; some f GRAVEL
2	ND			
3	ND			
4	ND			
5	ND	No Recovery	5 - 5.1'	Refusal @5.1'
6	ND			
7	ND			
8	ND			
9	ND			
10	ND			
11	ND			
12	ND			
13	ND			
14	ND			
15	ND			
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 5 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-27  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 16, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	50"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 5'	Brown f SAND
2	ND			
3	ND			
4	ND			
5	ND	60"	5 - 6'	Brown f SAND; little f GRAVEL
6	ND		6 - 6.5'	Black mf SAND
7	ND		6.5 - 10'	Gray CLAY
8	ND			
9	ND			
10	ND	36"	10 - 15'	Gray/Brown CLAY; little f SAND
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray/Brown CLAY; little f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-28  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services  
 McFarland-Johnson  
 Port of Albany- Beacon Island Parcel  
 Bethlehem, Albany County, New York  
 ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	48"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 3'	Brown f SAND; trace f GRAVEL
2	ND			
3	ND		3 - 5'	Brown f SAND; trace mf GRAVEL
4	ND			
5	ND	40"	5 - 7'	Brown f SAND; little mf GRAVEL
6	ND			
7	ND		7 - 8'	Brown f SAND
8	ND		8 - 10'	Brown f SAND; little mf GRAVEL
9	ND			
10	ND	36"	10 - 12.5'	Brown f SAND; little mf GRAVEL
11	ND			
12	ND		12.5 - 15'	Brown CLAY; little f SAND
13	ND			
14	ND			
15	ND	24"	15 - 16'	Brown f SAND; trace mf GRAVEL
16	ND		16 - 20'	Brown mf SAND; trace mf GRAVEL
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-29  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	56"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 5'	Brown f SAND
2	ND			
3	ND			
4	ND			
5	ND	60"	5 - 7'	Brown f SAND
6	ND			
7	ND		7 - 10'	Brown CLAY
8	ND			
9	ND			
10	ND	60"	10 - 11'	Brown f SAND
11	ND		11 - 15'	Gray CLAY
12	ND			
13	ND			
14	ND			
15	ND	36"	15 - 20'	Gray CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-30  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 3'	Brown CLAY; trace f SAND
2	ND			
3	ND		3 - 4.5'	Gray CLAY; trace mf GRAVEL
4	ND			
5	ND	60"	4.5 - 5'	White m GRAVEL
6	ND		5 - 10'	Gray CLAY; little f SAND
7	ND			
8	ND			
9	ND			
10	ND			
11	ND			Refusal @ 10'
12	ND			
13	ND			
14	ND			
15	ND			
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Refusal at 10 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection





# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-31  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 1'	Gray mf SAND
1	ND		1 - 5'	Brown mf SAND
2	ND			
3	ND			
4	ND			
5	ND	60"	5 - 10'	Brown f SAND
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	60"	10 - 12.5'	Brown f SAND; trace f GRAVEL
11	ND			
12	ND		12.5 - 15'	Gray CLAY
13	ND			
14	ND			
15	ND	40"	15 - 20'	Gray CLAY; some f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-32  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 5'	Brown mf SAND
2	ND			
3	ND			
4	ND			
5	ND	48"	5 - 10'	Brown f Sand
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	60"	10 - 14'	Brown f SAND; trace f GRAVEL
11	ND			
12	ND			
13	ND			
14	ND		14 - 15'	Black CLAY
15	ND	60"	15 - 20'	Gray/Brown CLAY; some f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-33  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	36"	0 - 0.5'	Black TOPSOIL
1	ND		0.5 - 5'	Gray CLAY
2	ND			
3	ND			
4	ND			
5	ND	60"	5 - 10'	Gray CLAY
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	60"	10 - 15'	Gray CLAY
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY; trace f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-34  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services  
 McFarland-Johnson  
 Port of Albany- Beacon Island Parcel  
 Bethlehem, Albany County, New York  
 ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	36"	0 -0.5'	Brown TOPSOIL
1	ND		0.5 - 5'	Gray CLAY
2	ND			
3	ND			
4	ND			
5	ND	48"	5 - 10'	Gray CLAY
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	60"	10 - 15'	Gray CLAY
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 -20'	Gray CLAY; trace f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-35  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 -5'	Black ASH
1	ND			
2	ND			
3	ND			
4	ND			
5	ND	36"	5 - 10'	Black ASH
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	60"	10 - 12.5	Black ASH
11	ND		12.5 - 15'	Gray CLAY
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY; trace f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-36  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	56"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 5'	Black ASH
2	ND			
3	ND			
4	ND			
5	ND	36"	5 - 6'	Black ASH
6	ND		6 - 10'	Gray CLAY; trace f SAND
7	ND			
8	ND			
9	ND			
10	ND	60"	10 - 15'	Gray CLAY; trace f SAND
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY; trace f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-37  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Black TOPSOIL
1	ND		0.5 - 5'	Black ASH
2	ND			
3	ND			
4	ND			
5	ND	60"	5 - 7.5'	Black ASH
6	ND			
7	ND			
8	ND		7.5 - 10'	Gray CLAY
9	ND			
10	ND	60"	10 - 15'	Gray CLAY; trace f SAND
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY; trace f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection





# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-38  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 5'	Black ASH
1	ND			
2	ND			
3	ND			
4	ND			
5	ND	60"	5 - 7'	Black ASH
6	ND			
7	ND		7 - 10'	Gray CLAY
8	ND			
9	ND			
10	ND	60"	10 - 10.5'	Gray CLAY
			10.5 - 11.5'	Black ASH
11	ND		11.5 - 15'	Gray CLAY
12	ND			
13	ND			
14	ND	60"	15 - 20'	Gray CLAY; trace f SAND
15	ND			
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-39  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	36"	0 - 5'	Black ASH
1	ND			
2	ND			
3	ND			
4	ND			
5	ND	36"	5 - 10'	Black ASH
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	30"	10 - 15'	Black ASH
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY; trace f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-40  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	30"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 5'	Black ASH
2	ND			
3	ND			
4	ND			
5	ND	36"	5 - 10'	Black ASH
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	42"	10 - 15'	Black ASH
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	12"	15 - 20'	Black ASH
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-41  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 1.5'	Brown mf SAND; trace mf GRAVEL
2	ND		1.5 - 5'	Gray CLAY; trace mf GRAVEL
3	ND	60"		
4	ND			
5	ND			
5	ND	60"	5 - 5.5'	Gray CLAY
6	ND		5.5 - 7.5'	Black f SAND
7	ND			
8	ND	60"	7.5 - 10'	Gray CLAY
9	ND			
10	ND			
10	ND	60"	10 - 15'	Gray CLAY
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	54"	15 - 20'	Gray CLAY; little f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-42  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	54"	0 - 5'	Black ASH
1	ND			
2	ND			
3	ND			
4	ND			
5	ND	60"	5 - 8'	Black ASH
6	ND			
7	ND			
8	ND		8 - 10'	Gray CLAY
9	ND			
10	ND	38"	10 - 14'	Gray CLAY
11	ND			
12	ND			
13	ND			
14	ND		14 - 15'	Brown mf SAND
15	ND	60"	15 - 20'	Gray CLAY
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-43  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	60"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5 - 1.5'	Black f SAND
2	ND		1.5 - 5'	Gray CLAY; trace f GRAVEL
3	ND	60"		
4	ND			
5	ND		5 - 5.5'	Gray CLAY; trace f GRAVEL
6	ND	60"	5.5 - 10'	Gray CLAY; trace f SAND
7	ND			
8	ND			
9	ND	38"		
10	ND		10 - 15'	Gray CLAY
11	ND			
12	ND	60"		
13	ND			
14	ND			
15	ND	60"	15 - 20'	Gray CLAY; trace f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**

Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-44  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	30"	0 - 0.5'	Brown m SAND
1	ND		0.5 - 3'	Gray m GRAVEL; little f SAND
2	ND			
3	ND		3 - 5'	Gray CLAY; trace f GRAVEL
4	ND			
5	ND	60"	5 - 7'	Gray/Brown CLAY; some f SAND
6	ND			
7	ND		7 - 10'	Gray/Brown CLAY; some mf SAND
8	ND			
9	ND			
10	ND	12"	10 - 15'	Brown mf SAND
11	ND			
12	ND			
13	ND			
14	ND			
15	ND	30"	15 - 20'	Gray CLAY; trace f SAND
16	ND			
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection





# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-45  
 SHEET NUMBER: 1 of 1  
 PROBE ADVANCED: Geoprobe G40  
 ADVANCEMENT DATE: September 17, 2020  
 ATL PROJECT MANAGER: Matthew A. Clum  
 GROUND ELEVATION: Not Determined  
 GROUNDWATER TABLE: Not Determined  
 PID CALIBRATION: 100 ppm Isobutylene  
 PROBE LOCATION: See Probe Location Plan

**Geoprobe Investigation Services**  
**McFarland-Johnson**  
**Port of Albany- Beacon Island Parcel**  
**Bethlehem, Albany County, New York**  
**ATL Report No. AT5596CE-04-10-20**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID (ppm)	Recovery	Depth	Classification of Material
0	ND	54"	0 - 0.5'	Brown TOPSOIL
1	ND		0.5' - 5'	Gray/Brown mf SAND
2	ND			
3	ND			
4	ND			
5	ND	24"	5 - 10'	Brown CLAY; little f SAND
6	ND			
7	ND			
8	ND			
9	ND			
10	ND	28"	10 - 10.5'	Brown/Gray mf SAND; some mf GRAVEL
11	ND		10.5 - 11.5'	Gray CLAY
12	ND		11.5 - 15'	Gray/Brown CLAY; some f SAND
13	ND			
14	ND			
15	ND	24"	15 - 16'	Gray CLAY
16	ND		16 - 20'	Gray f SAND
17	ND			
18	ND			
19	ND			

**NOTES**  
 Probe Terminated at 20 feet.  
 Ambient PID reading recorded (PID equipped with a 10.6 eV lamp).  
 ND = No Detection

**APPENDIX D**  
**SUMMARY OF PROBE DATA**

**Table D- I**  
**Summary of Probe Data**  
**Probes Advanced September 15 through 17, 2020**

<b>Probe Number</b>	<b>Probe Depth (feet bgs)</b>	<b>PID Reading (Range in ppm)</b>	<b>Presence of Ash or Other Debris</b>
B-1	20.0	ND	Waste ash/coal ash observed at 0.5 to 2 feet.
B-2	20.0	ND	Waste ash/coal ash observed at 0 to 20 feet (probe termination).
B-3	20.0	ND	Waste ash/coal ash observed at 0 to 20 feet.
B-4	20.0	ND	Waste ash/coal ash observed at 0 to 18 feet.
B-5	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-6	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-7	20.0	ND	Waste ash/coal ash observed at 0 to 11 feet.
B-8	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-9	20.0	ND	Waste ash/coal ash observed at 0.5 to 2.5 feet.
B-10	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-11	20.0	ND	Waste ash/coal ash observed at 8 to 11.5 feet.
B-12	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-13	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-14	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-15	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-16	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-17	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-18	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-19	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-20	20.0	ND	Waste ash/coal ash observed at 0 to 2 feet.
B-21	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-22	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-23	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-24	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-25	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-26	5.1	ND	No ash or evidence of other obvious waste materials observed.
B-27	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-28	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-29	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-30	10.0	ND	No ash or evidence of other obvious waste materials observed.
B-31	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-32	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-33	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-34	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-35	20.0	ND	Waste ash/coal ash observed at 0 to 12.5 feet.

**Table D- I (continued)**  
**Summary of Probe Data**  
**Probes Advanced September 15 through 17, 2020**

Probe Number	Probe Depth (feet bgs)	PID Reading (Range in ppm)	Presence of Ash or Other Debris
B-36	20.0	ND	Waste ash/coal ash observed at 0 to 6 feet.
B-37	20.0	ND	Waste ash/coal ash observed at 0.5 to 7.5 feet.
B-38	20.0	ND	Waste ash/coal ash observed at 0 to 11.5 feet.
B-39	20.0	ND	Waste ash/coal ash observed at 0 to 15 feet.
B-40	20.0	ND	Waste ash/coal ash observed at 0.5 to 20.0 feet.
B-41	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-42	20.0	ND	Waste ash/coal ash observed at 0 to 8 feet.
B-43	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-44	20.0	ND	No ash or evidence of other obvious waste materials observed.
B-45	20.0	ND	No ash or evidence of other obvious waste materials observed.

Notes:  
 ND = Not detected by field instrumentation  
 PID = Photoionization Detector  
 PID readings are representative of ambient field screening  
 ppm = parts per million  
 bgs = below ground surface

**APPENDIX E**

**LABORATORY REPORTS AND SAMPLE CUSTODY DOCUMENTATION**



## ANALYTICAL REPORT

Lab Number:	L2039249
Client:	Atlantic Testing Laboratories, Limited 22 Corporate Drive Clifton Park, NY 12065
ATTN:	Cheyenne Dashnaw
Phone:	(518) 383-9144
Project Name:	BEACON ISLAND
Project Number:	AT5596
Report Date:	09/25/20

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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).

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



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039249

Report Date: 09/25/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2039249-01	AT5596CECS-01 BORINGS: 5,6,8	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039249-02	AT5596CECS-02 BORINGS: 10,11,12	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039249-03	AT5596CECS-03 BORINGS: 13,15,16	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039249-04	AT5596CECS-04 BORINGS: 17,18,19	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039249-05	AT5596CECS-05 BORINGS: 21,22,23	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039249-06	AT5596CECS-06 BORINGS: 24,25	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039249-07	AT5596CECS-07 BORINGS: 26,27	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039249-08	AT5596CECS-08 BORINGS: 28,29	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039249-09	AT5596CECS-09 BORINGS: 41,43	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039249-10	AT5596CECS-11 BORINGS: 30,31	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039249-11	AT5596CECS-10 BORINGS: 44,45	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

### 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.

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**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

### 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.

#### Sample Receipt

L2039249-11: A sample identified as "AT5596CECS-10 BORINGS: 44,45" was received, but not listed on the Chain of Custody. At the client's request, this sample was analyzed.

#### Total Metals

L2039249-01 through -11: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

#### Cyanide, Total

The WG1413168-2/-3 LCS/LCSD recoveries for cyanide, total (34%/62%), associated with L2039249-01 through -10, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported. The LCS/LCSD RPD is above the acceptance criteria for cyanide, total (63%).

The WG1413211-2/-3 LCS/LCSD recoveries for cyanide, total (73%/42%), associated with L2039249-11, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported. The LCS/LCSD RPD is above the acceptance criteria for cyanide, total (54%).

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:  Melissa Sturgis

Title: Technical Director/Representative

Date: 09/25/20

# ORGANICS

# SEMIVOLATILES

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-01  
 Client ID: AT5596CECS-01 BORINGS: 5,6,8  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 09/22/20 02:52  
 Analyst: SZ  
 Percent Solids: 82%

Extraction Method: EPA 3546  
 Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	140		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-01  
 Client ID: AT5596CECS-01 BORINGS: 5,6,8  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1
Benzo(a)anthracene	130		ug/kg	120	22.	1
Benzo(a)pyrene	100	J	ug/kg	160	48.	1
Benzo(b)fluoranthene	130		ug/kg	120	33.	1
Benzo(k)fluoranthene	32	J	ug/kg	120	31.	1
Chrysene	91	J	ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	56	J	ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	58	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	57	J	ug/kg	160	27.	1
Pyrene	140		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	81.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	420	74.	1
4-Nitrophenol	ND		ug/kg	280	80.	1
2,4-Dinitrophenol	ND		ug/kg	940	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	94.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-01  
 Client ID: AT5596CECS-01 BORINGS: 5,6,8  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1
1,4-Dioxane	ND		ug/kg	30	9.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		25-120
Phenol-d6	54		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	53		30-120
2,4,6-Tribromophenol	59		10-136
4-Terphenyl-d14	50		18-120



**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-02  
 Client ID: AT5596CECS-02 BORINGS: 10,11,12  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 09/22/20 03:15  
 Analyst: SZ  
 Percent Solids: 80%

Extraction Method: EPA 3546  
 Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	28.	1
2-Chloronaphthalene	ND		ug/kg	210	20.	1
1,2-Dichlorobenzene	ND		ug/kg	210	37.	1
1,3-Dichlorobenzene	ND		ug/kg	210	36.	1
1,4-Dichlorobenzene	ND		ug/kg	210	36.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	55.	1
2,4-Dinitrotoluene	ND		ug/kg	210	41.	1
2,6-Dinitrotoluene	ND		ug/kg	210	35.	1
Fluoranthene	ND		ug/kg	120	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	21.	1
Hexachlorobutadiene	ND		ug/kg	210	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	590	190	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	190	27.	1
Naphthalene	ND		ug/kg	210	25.	1
Nitrobenzene	ND		ug/kg	190	30.	1
NDPA/DPA	ND		ug/kg	160	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	32.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	72.	1
Butyl benzyl phthalate	ND		ug/kg	210	52.	1
Di-n-butylphthalate	ND		ug/kg	210	39.	1
Di-n-octylphthalate	ND		ug/kg	210	70.	1

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-02  
 Client ID: AT5596CECS-02 BORINGS: 10,11,12  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	210	19.	1
Dimethyl phthalate	ND		ug/kg	210	43.	1
Benzo(a)anthracene	ND		ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	ND		ug/kg	120	35.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	ND		ug/kg	120	22.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	210	20.	1
Phenanthrene	ND		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	29.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	470	48.	1
4-Chloroaniline	ND		ug/kg	210	38.	1
2-Nitroaniline	ND		ug/kg	210	40.	1
3-Nitroaniline	ND		ug/kg	210	39.	1
4-Nitroaniline	ND		ug/kg	210	86.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	250	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
p-Chloro-m-cresol	ND		ug/kg	210	31.	1
2-Chlorophenol	ND		ug/kg	210	24.	1
2,4-Dichlorophenol	ND		ug/kg	190	33.	1
2,4-Dimethylphenol	ND		ug/kg	210	68.	1
2-Nitrophenol	ND		ug/kg	450	78.	1
4-Nitrophenol	ND		ug/kg	290	84.	1
2,4-Dinitrophenol	ND		ug/kg	990	96.	1
4,6-Dinitro-o-cresol	ND		ug/kg	540	99.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	210	31.	1
2-Methylphenol	ND		ug/kg	210	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	32.	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-02  
 Client ID: AT5596CECS-02 BORINGS: 10,11,12  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	210	40.	1
Benzoic Acid	ND		ug/kg	670	210	1
Benzyl Alcohol	ND		ug/kg	210	63.	1
Carbazole	ND		ug/kg	210	20.	1
1,4-Dioxane	ND		ug/kg	31	9.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		25-120
Phenol-d6	90		10-120
Nitrobenzene-d5	95		23-120
2-Fluorobiphenyl	83		30-120
2,4,6-Tribromophenol	73		10-136
4-Terphenyl-d14	76		18-120

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-03  
 Client ID: AT5596CECS-03 BORINGS: 13,15,16  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 09/22/20 03:37  
 Analyst: SZ  
 Percent Solids: 81%

Extraction Method: EPA 3546  
 Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	37.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	36.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	41.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	32.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	71.	1
Butyl benzyl phthalate	ND		ug/kg	200	52.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	70.	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-03  
 Client ID: AT5596CECS-03 BORINGS: 13,15,16  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1
Benzo(a)anthracene	ND		ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	ND		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	470	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	85.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	33.	1
2,4-Dimethylphenol	ND		ug/kg	200	67.	1
2-Nitrophenol	ND		ug/kg	440	77.	1
4-Nitrophenol	ND		ug/kg	290	83.	1
2,4-Dinitrophenol	ND		ug/kg	980	95.	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	98.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	200	31.	1
2-Methylphenol	ND		ug/kg	200	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	32.	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-03  
 Client ID: AT5596CECS-03 BORINGS: 13,15,16  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Benzoic Acid	ND		ug/kg	660	210	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	20.	1
1,4-Dioxane	ND		ug/kg	31	9.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	88		25-120
Phenol-d6	92		10-120
Nitrobenzene-d5	96		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	70		10-136
4-Terphenyl-d14	62		18-120

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-04  
 Client ID: AT5596CECS-04 BORINGS: 17,18,19  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 09/22/20 04:00  
 Analyst: SZ  
 Percent Solids: 80%

Extraction Method: EPA 3546  
 Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	210	20.	1
1,2-Dichlorobenzene	ND		ug/kg	210	37.	1
1,3-Dichlorobenzene	ND		ug/kg	210	35.	1
1,4-Dichlorobenzene	ND		ug/kg	210	36.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	55.	1
2,4-Dinitrotoluene	ND		ug/kg	210	41.	1
2,6-Dinitrotoluene	ND		ug/kg	210	35.	1
Fluoranthene	ND		ug/kg	120	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	21.	1
Hexachlorobutadiene	ND		ug/kg	210	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	590	190	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	27.	1
Naphthalene	ND		ug/kg	210	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	32.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	71.	1
Butyl benzyl phthalate	ND		ug/kg	210	52.	1
Di-n-butylphthalate	ND		ug/kg	210	39.	1
Di-n-octylphthalate	ND		ug/kg	210	70.	1



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-04  
 Client ID: AT5596CECS-04 BORINGS: 17,18,19  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	210	19.	1
Dimethyl phthalate	ND		ug/kg	210	43.	1
Benzo(a)anthracene	ND		ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	ND		ug/kg	120	35.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	210	20.	1
Phenanthrene	ND		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	29.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	470	48.	1
4-Chloroaniline	ND		ug/kg	210	38.	1
2-Nitroaniline	ND		ug/kg	210	40.	1
3-Nitroaniline	ND		ug/kg	210	39.	1
4-Nitroaniline	ND		ug/kg	210	85.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	250	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
p-Chloro-m-cresol	ND		ug/kg	210	31.	1
2-Chlorophenol	ND		ug/kg	210	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	33.	1
2,4-Dimethylphenol	ND		ug/kg	210	68.	1
2-Nitrophenol	ND		ug/kg	440	78.	1
4-Nitrophenol	ND		ug/kg	290	84.	1
2,4-Dinitrophenol	ND		ug/kg	990	96.	1
4,6-Dinitro-o-cresol	ND		ug/kg	540	99.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	210	31.	1
2-Methylphenol	ND		ug/kg	210	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	32.	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-04  
 Client ID: AT5596CECS-04 BORINGS: 17,18,19  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	210	40.	1
Benzoic Acid	ND		ug/kg	670	210	1
Benzyl Alcohol	ND		ug/kg	210	63.	1
Carbazole	ND		ug/kg	210	20.	1
1,4-Dioxane	ND		ug/kg	31	9.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		25-120
Phenol-d6	92		10-120
Nitrobenzene-d5	99		23-120
2-Fluorobiphenyl	78		30-120
2,4,6-Tribromophenol	67		10-136
4-Terphenyl-d14	61		18-120

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-05  
 Client ID: AT5596CECS-05 BORINGS: 21,22,23  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 09/23/20 19:41  
 Analyst: JG  
 Percent Solids: 84%

Extraction Method: EPA 3546  
 Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	52.	1
2,4-Dinitrotoluene	ND		ug/kg	190	39.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	250		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	25.	1
Naphthalene	ND		ug/kg	190	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	49.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-05  
 Client ID: AT5596CECS-05 BORINGS: 21,22,23  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	41.	1
Benzo(a)anthracene	160		ug/kg	120	22.	1
Benzo(a)pyrene	130	J	ug/kg	160	48.	1
Benzo(b)fluoranthene	150		ug/kg	120	33.	1
Benzo(k)fluoranthene	55	J	ug/kg	120	31.	1
Chrysene	140		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	42	J	ug/kg	160	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	77	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	59	J	ug/kg	160	27.	1
Pyrene	220		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	38.	1
3-Nitroaniline	ND		ug/kg	190	37.	1
4-Nitroaniline	ND		ug/kg	190	81.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	73.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	930	91.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	93.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-05  
 Client ID: AT5596CECS-05 BORINGS: 21,22,23  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	630	200	1
Benzyl Alcohol	ND		ug/kg	190	60.	1
Carbazole	ND		ug/kg	190	19.	1
1,4-Dioxane	ND		ug/kg	29	9.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	76		25-120
Phenol-d6	82		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	95		10-136
4-Terphenyl-d14	61		18-120

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-06  
 Client ID: AT5596CECS-06 BORINGS: 24,25  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 09/22/20 04:46  
 Analyst: SZ  
 Percent Solids: 79%

Extraction Method: EPA 3546  
 Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	28.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	38.	1
1,3-Dichlorobenzene	ND		ug/kg	210	36.	1
1,4-Dichlorobenzene	ND		ug/kg	210	37.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	56.	1
2,4-Dinitrotoluene	ND		ug/kg	210	42.	1
2,6-Dinitrotoluene	ND		ug/kg	210	36.	1
Fluoranthene	ND		ug/kg	130	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	600	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	27.	1
Naphthalene	ND		ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	31.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	32.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	73.	1
Butyl benzyl phthalate	ND		ug/kg	210	53.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	71.	1

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-06  
 Client ID: AT5596CECS-06 BORINGS: 24,25  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	210	19.	1
Dimethyl phthalate	ND		ug/kg	210	44.	1
Benzo(a)anthracene	ND		ug/kg	130	24.	1
Benzo(a)pyrene	ND		ug/kg	170	51.	1
Benzo(b)fluoranthene	ND		ug/kg	130	35.	1
Benzo(k)fluoranthene	ND		ug/kg	130	34.	1
Chrysene	ND		ug/kg	130	22.	1
Acenaphthylene	ND		ug/kg	170	32.	1
Anthracene	ND		ug/kg	130	41.	1
Benzo(ghi)perylene	ND		ug/kg	170	25.	1
Fluorene	ND		ug/kg	210	20.	1
Phenanthrene	ND		ug/kg	130	26.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	24.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	170	29.	1
Pyrene	ND		ug/kg	130	21.	1
Biphenyl	ND		ug/kg	480	49.	1
4-Chloroaniline	ND		ug/kg	210	38.	1
2-Nitroaniline	ND		ug/kg	210	40.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	87.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	250	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	40.	1
p-Chloro-m-cresol	ND		ug/kg	210	31.	1
2-Chlorophenol	ND		ug/kg	210	25.	1
2,4-Dichlorophenol	ND		ug/kg	190	34.	1
2,4-Dimethylphenol	ND		ug/kg	210	69.	1
2-Nitrophenol	ND		ug/kg	450	79.	1
4-Nitrophenol	ND		ug/kg	290	86.	1
2,4-Dinitrophenol	ND		ug/kg	1000	98.	1
4,6-Dinitro-o-cresol	ND		ug/kg	550	100	1
Pentachlorophenol	ND		ug/kg	170	46.	1
Phenol	ND		ug/kg	210	32.	1
2-Methylphenol	ND		ug/kg	210	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	33.	1



**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-06  
 Client ID: AT5596CECS-06 BORINGS: 24,25  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	210	40.	1
Benzoic Acid	ND		ug/kg	680	210	1
Benzyl Alcohol	ND		ug/kg	210	64.	1
Carbazole	ND		ug/kg	210	20.	1
1,4-Dioxane	ND		ug/kg	32	9.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		25-120
Phenol-d6	76		10-120
Nitrobenzene-d5	88		23-120
2-Fluorobiphenyl	59		30-120
2,4,6-Tribromophenol	67		10-136
4-Terphenyl-d14	51		18-120

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-07  
 Client ID: AT5596CECS-07 BORINGS: 26,27  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 09/22/20 05:09  
 Analyst: SZ  
 Percent Solids: 82%

Extraction Method: EPA 3546  
 Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-07  
 Client ID: AT5596CECS-07 BORINGS: 26,27  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	83.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	430	75.	1
4-Nitrophenol	ND		ug/kg	280	82.	1
2,4-Dinitrophenol	ND		ug/kg	960	93.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	96.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	31.	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-07  
 Client ID: AT5596CECS-07 BORINGS: 26,27  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	19.	1
1,4-Dioxane	ND		ug/kg	30	9.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		25-120
Phenol-d6	63		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	56		30-120
2,4,6-Tribromophenol	56		10-136
4-Terphenyl-d14	54		18-120

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-08  
 Client ID: AT5596CECS-08 BORINGS: 28,29  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 09/23/20 20:04  
 Analyst: JG  
 Percent Solids: 87%

Extraction Method: EPA 3546  
 Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	170		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	64.	1

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-08  
 Client ID: AT5596CECS-08 BORINGS: 28,29  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	130		ug/kg	110	21.	1
Benzo(a)pyrene	150		ug/kg	150	46.	1
Benzo(b)fluoranthene	140		ug/kg	110	32.	1
Benzo(k)fluoranthene	48	J	ug/kg	110	30.	1
Chrysene	110		ug/kg	110	20.	1
Acenaphthylene	58	J	ug/kg	150	29.	1
Anthracene	ND		ug/kg	110	37.	1
Benzo(ghi)perylene	69	J	ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	18.	1
Phenanthrene	94	J	ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	74	J	ug/kg	150	26.	1
Pyrene	180		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	430	44.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	63.	1
2-Nitrophenol	ND		ug/kg	410	71.	1
4-Nitrophenol	ND		ug/kg	260	77.	1
2,4-Dinitrophenol	ND		ug/kg	910	88.	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	91.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-08  
 Client ID: AT5596CECS-08 BORINGS: 28,29  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	ND		ug/kg	190	18.	1
1,4-Dioxane	ND		ug/kg	28	8.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		25-120
Phenol-d6	78		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	63		30-120
2,4,6-Tribromophenol	90		10-136
4-Terphenyl-d14	50		18-120



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-09  
 Client ID: AT5596CECS-09 BORINGS: 41,43  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 09/23/20 19:18  
 Analyst: JG  
 Percent Solids: 80%

Extraction Method: EPA 3546  
 Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	36.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	41.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	140		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	69.	1

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-09  
 Client ID: AT5596CECS-09 BORINGS: 41,43  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1
Benzo(a)anthracene	66	J	ug/kg	120	23.	1
Benzo(a)pyrene	67	J	ug/kg	160	50.	1
Benzo(b)fluoranthene	72	J	ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	59	J	ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	33	J	ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	91	J	ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	37	J	ug/kg	160	28.	1
Pyrene	140		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	84.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	33.	1
2,4-Dimethylphenol	ND		ug/kg	200	67.	1
2-Nitrophenol	ND		ug/kg	440	76.	1
4-Nitrophenol	ND		ug/kg	280	83.	1
2,4-Dinitrophenol	ND		ug/kg	980	95.	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	98.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	200	31.	1
2-Methylphenol	ND		ug/kg	200	32.	1
3-Methylphenol/4-Methylphenol	82	J	ug/kg	290	32.	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-09  
 Client ID: AT5596CECS-09 BORINGS: 41,43  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Benzoic Acid	ND		ug/kg	660	200	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	20.	1
1,4-Dioxane	ND		ug/kg	30	9.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	85		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	69		30-120
2,4,6-Tribromophenol	98		10-136
4-Terphenyl-d14	50		18-120

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-10  
 Client ID: AT5596CECS-11 BORINGS: 30,31  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 09/23/20 20:28  
 Analyst: JG  
 Percent Solids: 87%

Extraction Method: EPA 3546  
 Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	150		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	64.	1

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-10  
 Client ID: AT5596CECS-11 BORINGS: 30,31  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	110		ug/kg	110	21.	1
Benzo(a)pyrene	88	J	ug/kg	150	46.	1
Benzo(b)fluoranthene	93	J	ug/kg	110	32.	1
Benzo(k)fluoranthene	44	J	ug/kg	110	30.	1
Chrysene	85	J	ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	ND		ug/kg	110	37.	1
Benzo(ghi)perylene	30	J	ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	18.	1
Phenanthrene	62	J	ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	40	J	ug/kg	150	26.	1
Pyrene	130		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	430	44.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	78.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	63.	1
2-Nitrophenol	ND		ug/kg	410	71.	1
4-Nitrophenol	ND		ug/kg	260	77.	1
2,4-Dinitrophenol	ND		ug/kg	910	88.	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	91.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-10  
 Client ID: AT5596CECS-11 BORINGS: 30,31  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	ND		ug/kg	190	18.	1
1,4-Dioxane	ND		ug/kg	28	8.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		25-120
Phenol-d6	93		10-120
Nitrobenzene-d5	97		23-120
2-Fluorobiphenyl	73		30-120
2,4,6-Tribromophenol	100		10-136
4-Terphenyl-d14	60		18-120

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-11  
 Client ID: AT5596CECS-10 BORINGS: 44,45  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 09/23/20 06:38  
 Analyst: JG  
 Percent Solids: 85%

Extraction Method: EPA 3546  
 Extraction Date: 09/22/20 11:02

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	39.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	24	J	ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	180	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	34	J	ug/kg	190	24.	1
Nitrobenzene	ND		ug/kg	170	29.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	49.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-11  
 Client ID: AT5596CECS-10 BORINGS: 44,45  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	150	47.	1
Benzo(b)fluoranthene	ND		ug/kg	120	32.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	20	J	ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	150	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	24	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	27.	1
Pyrene	24	J	ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	36	J	ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	73.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	930	90.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	93.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-11  
 Client ID: AT5596CECS-10 BORINGS: 44,45  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	630	200	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	19.	1
1,4-Dioxane	ND		ug/kg	29	8.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	69		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	71		10-136
4-Terphenyl-d14	71		18-120

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 09/22/20 01:44  
Analyst: SZ

Extraction Method: EPA 3546  
Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatle Organics by GC/MS - Westborough Lab for sample(s): 01-10 Batch: WG1412316-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 09/22/20 01:44  
Analyst: SZ

Extraction Method: EPA 3546  
Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-10 Batch: WG1412316-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	62.

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 09/22/20 01:44  
Analyst: SZ

Extraction Method: EPA 3546  
Extraction Date: 09/21/20 00:04

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatiles Organics by GC/MS - Westborough Lab for sample(s): 01-10 Batch: WG1412316-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	76.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
1,4-Dioxane	ND		ug/kg	24	7.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	79		25-120
Phenol-d6	83		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	70		10-136
4-Terphenyl-d14	87		18-120

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 09/22/20 14:15  
Analyst: JG

Extraction Method: EPA 3546  
Extraction Date: 09/21/20 18:59

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatle Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1412664-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 09/22/20 14:15  
Analyst: JG

Extraction Method: EPA 3546  
Extraction Date: 09/21/20 18:59

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1412664-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 09/22/20 14:15  
Analyst: JG

Extraction Method: EPA 3546  
Extraction Date: 09/21/20 18:59

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1412664-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Benzoic Acid	ND		ug/kg	530	170
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
1,4-Dioxane	ND		ug/kg	25	7.6

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	81		25-120
Phenol-d6	82		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	71		10-136
4-Terphenyl-d14	75		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG1412316-2 WG1412316-3								
Acenaphthene	77		73		31-137	5		50
1,2,4-Trichlorobenzene	70		66		38-107	6		50
Hexachlorobenzene	70		66		40-140	6		50
Bis(2-chloroethyl)ether	78		73		40-140	7		50
2-Chloronaphthalene	78		74		40-140	5		50
1,2-Dichlorobenzene	66		63		40-140	5		50
1,3-Dichlorobenzene	65		61		40-140	6		50
1,4-Dichlorobenzene	65		60		28-104	8		50
3,3'-Dichlorobenzidine	79		77		40-140	3		50
2,4-Dinitrotoluene	90		88		40-132	2		50
2,6-Dinitrotoluene	90		86		40-140	5		50
Fluoranthene	83		80		40-140	4		50
4-Chlorophenyl phenyl ether	79		76		40-140	4		50
4-Bromophenyl phenyl ether	76		72		40-140	5		50
Bis(2-chloroisopropyl)ether	79		77		40-140	3		50
Bis(2-chloroethoxy)methane	90		86		40-117	5		50
Hexachlorobutadiene	62		58		40-140	7		50
Hexachlorocyclopentadiene	63		59		40-140	7		50
Hexachloroethane	63		59		40-140	7		50
Isophorone	88		83		40-140	6		50
Naphthalene	71		66		40-140	7		50
Nitrobenzene	89		85		40-140	5		50
NDPA/DPA	83		80		36-157	4		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG1412316-2 WG1412316-3								
n-Nitrosodi-n-propylamine	91		86		32-121	6		50
Bis(2-ethylhexyl)phthalate	97		95		40-140	2		50
Butyl benzyl phthalate	96		93		40-140	3		50
Di-n-butylphthalate	93		92		40-140	1		50
Di-n-octylphthalate	98		96		40-140	2		50
Diethyl phthalate	84		81		40-140	4		50
Dimethyl phthalate	84		81		40-140	4		50
Benzo(a)anthracene	92		90		40-140	2		50
Benzo(a)pyrene	77		75		40-140	3		50
Benzo(b)fluoranthene	93		89		40-140	4		50
Benzo(k)fluoranthene	72		70		40-140	3		50
Chrysene	77		75		40-140	3		50
Acenaphthylene	84		81		40-140	4		50
Anthracene	85		83		40-140	2		50
Benzo(ghi)perylene	87		82		40-140	6		50
Fluorene	79		75		40-140	5		50
Phenanthrene	84		80		40-140	5		50
Dibenzo(a,h)anthracene	93		88		40-140	6		50
Indeno(1,2,3-cd)pyrene	93		88		40-140	6		50
Pyrene	84		81		35-142	4		50
Biphenyl	80		76		37-127	5		50
4-Chloroaniline	70		67		40-140	4		50
2-Nitroaniline	86		84		47-134	2		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG1412316-2 WG1412316-3								
3-Nitroaniline	79		77		26-129	3		50
4-Nitroaniline	87		84		41-125	4		50
Dibenzofuran	80		76		40-140	5		50
2-Methylnaphthalene	83		79		40-140	5		50
1,2,4,5-Tetrachlorobenzene	70		66		40-117	6		50
Acetophenone	85		80		14-144	6		50
2,4,6-Trichlorophenol	91		87		30-130	4		50
p-Chloro-m-cresol	94		89		26-103	5		50
2-Chlorophenol	78		73		25-102	7		50
2,4-Dichlorophenol	90		83		30-130	8		50
2,4-Dimethylphenol	96		89		30-130	8		50
2-Nitrophenol	86		80		30-130	7		50
4-Nitrophenol	100		97		11-114	3		50
2,4-Dinitrophenol	75		74		4-130	1		50
4,6-Dinitro-o-cresol	76		73		10-130	4		50
Pentachlorophenol	69		68		17-109	1		50
Phenol	91	Q	87		26-90	4		50
2-Methylphenol	86		80		30-130	7		50
3-Methylphenol/4-Methylphenol	91		88		30-130	3		50
2,4,5-Trichlorophenol	83		79		30-130	5		50
Benzoic Acid	63		64		10-110	2		50
Benzyl Alcohol	99		94		40-140	5		50
Carbazole	88		85		54-128	3		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039249

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG1412316-2 WG1412316-3								
1,4-Dioxane	44		41		40-140	7		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	77		72		25-120
Phenol-d6	85		80		10-120
Nitrobenzene-d5	90		84		23-120
2-Fluorobiphenyl	80		76		30-120
2,4,6-Tribromophenol	74		67		10-136
4-Terphenyl-d14	85		83		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1412664-2 WG1412664-3								
Acenaphthene	68		68		31-137	0		50
1,2,4-Trichlorobenzene	69		67		38-107	3		50
Hexachlorobenzene	69		70		40-140	1		50
Bis(2-chloroethyl)ether	65		64		40-140	2		50
2-Chloronaphthalene	75		71		40-140	5		50
1,2-Dichlorobenzene	62		61		40-140	2		50
1,3-Dichlorobenzene	61		59		40-140	3		50
1,4-Dichlorobenzene	61		60		28-104	2		50
3,3'-Dichlorobenzidine	44		45		40-140	2		50
2,4-Dinitrotoluene	77		77		40-132	0		50
2,6-Dinitrotoluene	84		81		40-140	4		50
Fluoranthene	74		70		40-140	6		50
4-Chlorophenyl phenyl ether	70		71		40-140	1		50
4-Bromophenyl phenyl ether	74		72		40-140	3		50
Bis(2-chloroisopropyl)ether	66		64		40-140	3		50
Bis(2-chloroethoxy)methane	77		74		40-117	4		50
Hexachlorobutadiene	65		63		40-140	3		50
Hexachlorocyclopentadiene	71		71		40-140	0		50
Hexachloroethane	60		59		40-140	2		50
Isophorone	73		68		40-140	7		50
Naphthalene	66		64		40-140	3		50
Nitrobenzene	71		70		40-140	1		50
NDPA/DPA	73		72		36-157	1		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1412664-2 WG1412664-3								
n-Nitrosodi-n-propylamine	77		74		32-121	4		50
Bis(2-ethylhexyl)phthalate	79		77		40-140	3		50
Butyl benzyl phthalate	76		73		40-140	4		50
Di-n-butylphthalate	78		74		40-140	5		50
Di-n-octylphthalate	73		72		40-140	1		50
Diethyl phthalate	72		70		40-140	3		50
Dimethyl phthalate	78		74		40-140	5		50
Benzo(a)anthracene	70		68		40-140	3		50
Benzo(a)pyrene	76		76		40-140	0		50
Benzo(b)fluoranthene	74		75		40-140	1		50
Benzo(k)fluoranthene	73		69		40-140	6		50
Chrysene	68		68		40-140	0		50
Acenaphthylene	77		73		40-140	5		50
Anthracene	72		70		40-140	3		50
Benzo(ghi)perylene	74		71		40-140	4		50
Fluorene	72		72		40-140	0		50
Phenanthrene	71		69		40-140	3		50
Dibenzo(a,h)anthracene	74		70		40-140	6		50
Indeno(1,2,3-cd)pyrene	77		73		40-140	5		50
Pyrene	72		69		35-142	4		50
Biphenyl	85		80		37-127	6		50
4-Chloroaniline	62		58		40-140	7		50
2-Nitroaniline	78		76		47-134	3		50



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1412664-2 WG1412664-3								
3-Nitroaniline	68		66		26-129	3		50
4-Nitroaniline	72		72		41-125	0		50
Dibenzofuran	71		72		40-140	1		50
2-Methylnaphthalene	72		71		40-140	1		50
1,2,4,5-Tetrachlorobenzene	78		74		40-117	5		50
Acetophenone	84		82		14-144	2		50
2,4,6-Trichlorophenol	80		77		30-130	4		50
p-Chloro-m-cresol	84		81		26-103	4		50
2-Chlorophenol	73		70		25-102	4		50
2,4-Dichlorophenol	83		78		30-130	6		50
2,4-Dimethylphenol	79		77		30-130	3		50
2-Nitrophenol	72		73		30-130	1		50
4-Nitrophenol	74		73		11-114	1		50
2,4-Dinitrophenol	64		66		4-130	3		50
4,6-Dinitro-o-cresol	71		72		10-130	1		50
Pentachlorophenol	76		76		17-109	0		50
Phenol	74		70		26-90	6		50
2-Methylphenol	75		73		30-130.	3		50
3-Methylphenol/4-Methylphenol	77		73		30-130	5		50
2,4,5-Trichlorophenol	80		73		30-130	9		50
Benzoic Acid	48		58		10-110	19		50
Benzyl Alcohol	78		75		40-140	4		50
Carbazole	75		72		54-128	4		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039249

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1412664-2 WG1412664-3								
1,4-Dioxane	35	Q	34	Q	40-140	3		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	72		70		25-120
Phenol-d6	77		73		10-120
Nitrobenzene-d5	75		74		23-120
2-Fluorobiphenyl	76		71		30-120
2,4,6-Tribromophenol	78		75		10-136
4-Terphenyl-d14	74		71		18-120

# PCBS

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-01  
 Client ID: AT5596CECS-01 BORINGS: 5,6,8  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 09/21/20 20:10  
 Analyst: CW  
 Percent Solids: 82%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 19:56  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 09/21/20  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	39.2	3.48	1	A
Aroclor 1221	ND		ug/kg	39.2	3.93	1	A
Aroclor 1232	ND		ug/kg	39.2	8.31	1	A
Aroclor 1242	9.30	J	ug/kg	39.2	5.28	1	A
Aroclor 1248	ND		ug/kg	39.2	5.88	1	A
Aroclor 1254	ND		ug/kg	39.2	4.29	1	A
Aroclor 1260	ND		ug/kg	39.2	7.24	1	A
Aroclor 1262	ND		ug/kg	39.2	4.98	1	A
Aroclor 1268	ND		ug/kg	39.2	4.06	1	A
PCBs, Total	9.30	J	ug/kg	39.2	3.48	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	47		30-150	A
Decachlorobiphenyl	41		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	59		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-02  
 Client ID: AT5596CECS-02 BORINGS: 10,11,12  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 09/21/20 20:17  
 Analyst: CW  
 Percent Solids: 80%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 19:56  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 09/21/20  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	41.4	3.68	1	A
Aroclor 1221	ND		ug/kg	41.4	4.15	1	A
Aroclor 1232	ND		ug/kg	41.4	8.78	1	A
Aroclor 1242	16.6	J	ug/kg	41.4	5.58	1	B
Aroclor 1248	ND		ug/kg	41.4	6.21	1	A
Aroclor 1254	ND		ug/kg	41.4	4.53	1	A
Aroclor 1260	10.6	J	ug/kg	41.4	7.66	1	B
Aroclor 1262	ND		ug/kg	41.4	5.26	1	A
Aroclor 1268	ND		ug/kg	41.4	4.29	1	A
PCBs, Total	27.2	J	ug/kg	41.4	3.68	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	43		30-150	A
Decachlorobiphenyl	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		30-150	B
Decachlorobiphenyl	63		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-03  
 Client ID: AT5596CECS-03 BORINGS: 13,15,16  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 09/21/20 20:24  
 Analyst: CW  
 Percent Solids: 81%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 19:56  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 09/21/20  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	39.1	3.47	1	A
Aroclor 1221	ND		ug/kg	39.1	3.92	1	A
Aroclor 1232	ND		ug/kg	39.1	8.29	1	A
Aroclor 1242	6.35	J	ug/kg	39.1	5.27	1	B
Aroclor 1248	ND		ug/kg	39.1	5.86	1	A
Aroclor 1254	5.76	J	ug/kg	39.1	4.28	1	B
Aroclor 1260	ND		ug/kg	39.1	7.22	1	A
Aroclor 1262	ND		ug/kg	39.1	4.96	1	A
Aroclor 1268	ND		ug/kg	39.1	4.05	1	A
PCBs, Total	12.1	J	ug/kg	39.1	3.47	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	49		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	58		30-150	B
Decachlorobiphenyl	67		30-150	B

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-04  
 Client ID: AT5596CECS-04 BORINGS: 17,18,19  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 09/21/20 20:31  
 Analyst: CW  
 Percent Solids: 80%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 19:56  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 09/21/20  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	41.1	3.65	1	A
Aroclor 1221	ND		ug/kg	41.1	4.12	1	A
Aroclor 1232	ND		ug/kg	41.1	8.72	1	A
Aroclor 1242	ND		ug/kg	41.1	5.54	1	A
Aroclor 1248	ND		ug/kg	41.1	6.17	1	A
Aroclor 1254	ND		ug/kg	41.1	4.50	1	A
Aroclor 1260	ND		ug/kg	41.1	7.60	1	A
Aroclor 1262	ND		ug/kg	41.1	5.22	1	A
Aroclor 1268	ND		ug/kg	41.1	4.26	1	A
PCBs, Total	ND		ug/kg	41.1	3.65	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	45		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		30-150	B
Decachlorobiphenyl	69		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-05  
 Client ID: AT5596CECS-05 BORINGS: 21,22,23  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 09/22/20 10:15  
 Analyst: JAW  
 Percent Solids: 84%

Extraction Method: EPA 3546  
 Extraction Date: 09/21/20 22:48  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 09/22/20  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 09/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	39.2	3.48	1	A
Aroclor 1221	ND		ug/kg	39.2	3.92	1	A
Aroclor 1232	ND		ug/kg	39.2	8.30	1	A
Aroclor 1242	ND		ug/kg	39.2	5.28	1	A
Aroclor 1248	ND		ug/kg	39.2	5.87	1	A
Aroclor 1254	ND		ug/kg	39.2	4.28	1	A
Aroclor 1260	ND		ug/kg	39.2	7.24	1	A
Aroclor 1262	ND		ug/kg	39.2	4.97	1	A
Aroclor 1268	ND		ug/kg	39.2	4.06	1	A
PCBs, Total	ND		ug/kg	39.2	3.48	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	48		30-150	A
Decachlorobiphenyl	37		30-150	A
2,4,5,6-Tetrachloro-m-xylene	47		30-150	B
Decachlorobiphenyl	35		30-150	B



**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-06  
 Client ID: AT5596CECS-06 BORINGS: 24,25  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 09/21/20 20:46  
 Analyst: CW  
 Percent Solids: 79%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 19:56  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 09/21/20  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	41.7	3.70	1	A
Aroclor 1221	ND		ug/kg	41.7	4.18	1	A
Aroclor 1232	ND		ug/kg	41.7	8.84	1	A
Aroclor 1242	ND		ug/kg	41.7	5.62	1	A
Aroclor 1248	ND		ug/kg	41.7	6.26	1	A
Aroclor 1254	ND		ug/kg	41.7	4.56	1	A
Aroclor 1260	ND		ug/kg	41.7	7.71	1	A
Aroclor 1262	ND		ug/kg	41.7	5.30	1	A
Aroclor 1268	ND		ug/kg	41.7	4.32	1	A
PCBs, Total	ND		ug/kg	41.7	3.70	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	42		30-150	A
Decachlorobiphenyl	42		30-150	A
2,4,5,6-Tetrachloro-m-xylene	48		30-150	B
Decachlorobiphenyl	55		30-150	B

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-07  
 Client ID: AT5596CECS-07 BORINGS: 26,27  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 09/21/20 20:53  
 Analyst: CW  
 Percent Solids: 82%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 19:56  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 09/21/20  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	39.1	3.47	1	A
Aroclor 1221	ND		ug/kg	39.1	3.92	1	A
Aroclor 1232	ND		ug/kg	39.1	8.29	1	A
Aroclor 1242	ND		ug/kg	39.1	5.27	1	A
Aroclor 1248	ND		ug/kg	39.1	5.87	1	A
Aroclor 1254	ND		ug/kg	39.1	4.28	1	A
Aroclor 1260	ND		ug/kg	39.1	7.23	1	A
Aroclor 1262	ND		ug/kg	39.1	4.97	1	A
Aroclor 1268	ND		ug/kg	39.1	4.05	1	A
PCBs, Total	ND		ug/kg	39.1	3.47	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	47		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	73		30-150	B

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-08  
 Client ID: AT5596CECS-08 BORINGS: 28,29  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 09/21/20 21:00  
 Analyst: CW  
 Percent Solids: 87%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 19:56  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 09/21/20  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	38.0	3.37	1	A
Aroclor 1221	ND		ug/kg	38.0	3.80	1	A
Aroclor 1232	ND		ug/kg	38.0	8.05	1	A
Aroclor 1242	ND		ug/kg	38.0	5.12	1	A
Aroclor 1248	ND		ug/kg	38.0	5.70	1	A
Aroclor 1254	ND		ug/kg	38.0	4.15	1	A
Aroclor 1260	ND		ug/kg	38.0	7.02	1	A
Aroclor 1262	ND		ug/kg	38.0	4.82	1	A
Aroclor 1268	ND		ug/kg	38.0	3.93	1	A
PCBs, Total	ND		ug/kg	38.0	3.37	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	50		30-150	A
2,4,5,6-Tetrachloro-m-xylene	61		30-150	B
Decachlorobiphenyl	64		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-09  
 Client ID: AT5596CECS-09 BORINGS: 41,43  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 09/21/20 21:08  
 Analyst: CW  
 Percent Solids: 80%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 19:56  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 09/21/20  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	39.4	3.49	1	A
Aroclor 1221	ND		ug/kg	39.4	3.94	1	A
Aroclor 1232	ND		ug/kg	39.4	8.34	1	A
Aroclor 1242	9.27	J	ug/kg	39.4	5.30	1	B
Aroclor 1248	ND		ug/kg	39.4	5.90	1	A
Aroclor 1254	ND		ug/kg	39.4	4.30	1	A
Aroclor 1260	ND		ug/kg	39.4	7.27	1	B
Aroclor 1262	ND		ug/kg	39.4	5.00	1	A
Aroclor 1268	ND		ug/kg	39.4	4.08	1	A
PCBs, Total	9.27	J	ug/kg	39.4	3.49	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	82		30-150	B

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-10  
 Client ID: AT5596CECS-11 BORINGS: 30,31  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 09/21/20 21:15  
 Analyst: CW  
 Percent Solids: 87%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 19:56  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 09/21/20  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	36.4	3.23	1	A
Aroclor 1221	ND		ug/kg	36.4	3.64	1	A
Aroclor 1232	ND		ug/kg	36.4	7.71	1	A
Aroclor 1242	ND		ug/kg	36.4	4.90	1	A
Aroclor 1248	ND		ug/kg	36.4	5.46	1	A
Aroclor 1254	ND		ug/kg	36.4	3.98	1	A
Aroclor 1260	ND		ug/kg	36.4	6.72	1	A
Aroclor 1262	ND		ug/kg	36.4	4.62	1	A
Aroclor 1268	ND		ug/kg	36.4	3.77	1	A
PCBs, Total	ND		ug/kg	36.4	3.23	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	47		30-150	A
Decachlorobiphenyl	42		30-150	A
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	54		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-11  
 Client ID: AT5596CECS-10 BORINGS: 44,45  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 09/23/20 04:15  
 Analyst: JAW  
 Percent Solids: 85%

Extraction Method: EPA 3546  
 Extraction Date: 09/22/20 12:31  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 09/22/20  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 09/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	37.8	3.35	1	A
Aroclor 1221	ND		ug/kg	37.8	3.78	1	A
Aroclor 1232	ND		ug/kg	37.8	8.00	1	A
Aroclor 1242	ND		ug/kg	37.8	5.09	1	A
Aroclor 1248	ND		ug/kg	37.8	5.66	1	A
Aroclor 1254	ND		ug/kg	37.8	4.13	1	A
Aroclor 1260	ND		ug/kg	37.8	6.98	1	A
Aroclor 1262	ND		ug/kg	37.8	4.79	1	A
Aroclor 1268	ND		ug/kg	37.8	3.91	1	A
PCBs, Total	ND		ug/kg	37.8	3.35	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	43		30-150	A
Decachlorobiphenyl	35		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	41		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 09/21/20 22:13  
Analyst: CW

Extraction Method: EPA 3546  
Extraction Date: 09/20/20 19:56  
Cleanup Method: EPA 3665A  
Cleanup Date: 09/21/20  
Cleanup Method: EPA 3660B  
Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-04,06-10 Batch: WG1412301-1						
Aroclor 1016	ND		ug/kg	33.1	2.94	A
Aroclor 1221	ND		ug/kg	33.1	3.32	A
Aroclor 1232	ND		ug/kg	33.1	7.02	A
Aroclor 1242	ND		ug/kg	33.1	4.46	A
Aroclor 1248	ND		ug/kg	33.1	4.97	A
Aroclor 1254	ND		ug/kg	33.1	3.62	A
Aroclor 1260	ND		ug/kg	33.1	6.12	A
Aroclor 1262	ND		ug/kg	33.1	4.20	A
Aroclor 1268	ND		ug/kg	33.1	3.43	A
PCBs, Total	ND		ug/kg	33.1	2.94	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	45		30-150	A
Decachlorobiphenyl	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	56		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 09/22/20 09:37  
Analyst: CW

Extraction Method: EPA 3546  
Extraction Date: 09/21/20 22:48  
Cleanup Method: EPA 3665A  
Cleanup Date: 09/22/20  
Cleanup Method: EPA 3660B  
Cleanup Date: 09/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 05,11 Batch: WG1412697-1						
Aroclor 1016	ND		ug/kg	31.9	2.83	A
Aroclor 1221	ND		ug/kg	31.9	3.20	A
Aroclor 1232	ND		ug/kg	31.9	6.76	A
Aroclor 1242	ND		ug/kg	31.9	4.30	A
Aroclor 1248	ND		ug/kg	31.9	4.79	A
Aroclor 1254	ND		ug/kg	31.9	3.49	A
Aroclor 1260	ND		ug/kg	31.9	5.90	A
Aroclor 1262	ND		ug/kg	31.9	4.05	A
Aroclor 1268	ND		ug/kg	31.9	3.30	A
PCBs, Total	ND		ug/kg	31.9	2.83	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	51		30-150	A
Decachlorobiphenyl	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	43		30-150	B



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-04,06-10 Batch: WG1412301-2 WG1412301-3									
Aroclor 1016	60		60		40-140	0		50	A
Aroclor 1260	55		54		40-140	2		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	61		59		30-150	A
Decachlorobiphenyl	62		61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		66		30-150	B
Decachlorobiphenyl	77		75		30-150	B



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 05,11 Batch: WG1412697-2 WG1412697-3									
Aroclor 1016	70		68		40-140	3		50	A
Aroclor 1260	65		63		40-140	3		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		54		30-150	A
Decachlorobiphenyl	51		47		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		52		30-150	B
Decachlorobiphenyl	48		45		30-150	B



# PESTICIDES

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-01  
 Client ID: AT5596CECS-01 BORINGS: 5,6,8  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 09/23/20 11:20  
 Analyst: BM  
 Percent Solids: 82%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 17:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.85	0.362	1	A
Lindane	ND		ug/kg	0.770	0.344	1	A
Alpha-BHC	ND		ug/kg	0.770	0.218	1	A
Beta-BHC	ND		ug/kg	1.85	0.700	1	A
Heptachlor	ND		ug/kg	0.923	0.414	1	A
Aldrin	ND		ug/kg	1.85	0.650	1	A
Heptachlor epoxide	ND		ug/kg	3.46	1.04	1	A
Endrin	ND		ug/kg	0.770	0.316	1	A
Endrin aldehyde	ND		ug/kg	2.31	0.808	1	A
Endrin ketone	ND		ug/kg	1.85	0.476	1	A
Dieldrin	ND		ug/kg	1.15	0.577	1	A
4,4'-DDE	ND		ug/kg	1.85	0.427	1	A
4,4'-DDD	ND		ug/kg	1.85	0.659	1	B
4,4'-DDT	ND		ug/kg	3.46	1.48	1	A
Endosulfan I	ND		ug/kg	1.85	0.436	1	A
Endosulfan II	ND		ug/kg	1.85	0.617	1	A
Endosulfan sulfate	ND		ug/kg	0.770	0.366	1	A
Methoxychlor	ND		ug/kg	3.46	1.08	1	A
Toxaphene	ND		ug/kg	34.6	9.70	1	A
cis-Chlordane	ND		ug/kg	2.31	0.643	1	A
trans-Chlordane	1.22	JIP	ug/kg	2.31	0.609	1	A
Chlordane	ND		ug/kg	15.4	6.12	1	A

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-01  
 Client ID: AT5596CECS-01 BORINGS: 5,6,8  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	162	Q	30-150	A
Decachlorobiphenyl	105		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	114		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-02  
 Client ID: AT5596CECS-02 BORINGS: 10,11,12  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 09/23/20 11:31  
 Analyst: BM  
 Percent Solids: 80%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 17:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.93	0.378	1	A
Lindane	ND		ug/kg	0.805	0.360	1	A
Alpha-BHC	ND		ug/kg	0.805	0.229	1	A
Beta-BHC	ND		ug/kg	1.93	0.733	1	A
Heptachlor	ND		ug/kg	0.966	0.433	1	A
Aldrin	ND		ug/kg	1.93	0.680	1	A
Heptachlor epoxide	ND		ug/kg	3.62	1.09	1	A
Endrin	ND		ug/kg	0.805	0.330	1	A
Endrin aldehyde	ND		ug/kg	2.42	0.846	1	A
Endrin ketone	ND		ug/kg	1.93	0.498	1	A
Dieldrin	0.972	J	ug/kg	1.21	0.604	1	B
4,4'-DDE	1.60	J	ug/kg	1.93	0.447	1	A
4,4'-DDD	5.92		ug/kg	1.93	0.689	1	B
4,4'-DDT	2.02	J	ug/kg	3.62	1.55	1	A
Endosulfan I	ND		ug/kg	1.93	0.456	1	A
Endosulfan II	ND		ug/kg	1.93	0.646	1	A
Endosulfan sulfate	ND		ug/kg	0.805	0.383	1	A
Methoxychlor	ND		ug/kg	3.62	1.13	1	A
Toxaphene	ND		ug/kg	36.2	10.1	1	A
cis-Chlordane	ND		ug/kg	2.42	0.673	1	A
trans-Chlordane	1.35	JIP	ug/kg	2.42	0.638	1	A
Chlordane	ND		ug/kg	16.1	6.40	1	A

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-02  
 Client ID: AT5596CECS-02 BORINGS: 10,11,12  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	237	Q	30-150	A
Decachlorobiphenyl	100		30-150	A
2,4,5,6-Tetrachloro-m-xylene	98		30-150	B
Decachlorobiphenyl	121		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-03  
 Client ID: AT5596CECS-03 BORINGS: 13,15,16  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 09/23/20 11:43  
 Analyst: BM  
 Percent Solids: 81%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 17:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.92	0.377	1	A
Lindane	ND		ug/kg	0.802	0.358	1	A
Alpha-BHC	ND		ug/kg	0.802	0.228	1	A
Beta-BHC	ND		ug/kg	1.92	0.730	1	A
Heptachlor	ND		ug/kg	0.962	0.431	1	A
Aldrin	ND		ug/kg	1.92	0.678	1	A
Heptachlor epoxide	ND		ug/kg	3.61	1.08	1	A
Endrin	ND		ug/kg	0.802	0.329	1	A
Endrin aldehyde	ND		ug/kg	2.40	0.842	1	A
Endrin ketone	ND		ug/kg	1.92	0.495	1	A
Dieldrin	ND		ug/kg	1.20	0.601	1	A
4,4'-DDE	ND		ug/kg	1.92	0.445	1	A
4,4'-DDD	0.828	J	ug/kg	1.92	0.686	1	A
4,4'-DDT	ND		ug/kg	3.61	1.55	1	A
Endosulfan I	ND		ug/kg	1.92	0.455	1	A
Endosulfan II	ND		ug/kg	1.92	0.643	1	A
Endosulfan sulfate	ND		ug/kg	0.802	0.382	1	A
Methoxychlor	ND		ug/kg	3.61	1.12	1	A
Toxaphene	ND		ug/kg	36.1	10.1	1	A
cis-Chlordane	ND		ug/kg	2.40	0.670	1	A
trans-Chlordane	0.729	JIP	ug/kg	2.40	0.635	1	A
Chlordane	ND		ug/kg	16.0	6.37	1	A



**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-03  
 Client ID: AT5596CECS-03 BORINGS: 13,15,16  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	143		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	99		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-04  
 Client ID: AT5596CECS-04 BORINGS: 17,18,19  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 09/23/20 11:54  
 Analyst: BM  
 Percent Solids: 80%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 17:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.91	0.374	1	A
Lindane	ND		ug/kg	0.796	0.356	1	A
Alpha-BHC	ND		ug/kg	0.796	0.226	1	A
Beta-BHC	ND		ug/kg	1.91	0.724	1	A
Heptachlor	ND		ug/kg	0.955	0.428	1	A
Aldrin	ND		ug/kg	1.91	0.673	1	A
Heptachlor epoxide	ND		ug/kg	3.58	1.07	1	A
Endrin	ND		ug/kg	0.796	0.326	1	A
Endrin aldehyde	ND		ug/kg	2.39	0.836	1	A
Endrin ketone	ND		ug/kg	1.91	0.492	1	A
Dieldrin	ND		ug/kg	1.19	0.597	1	A
4,4'-DDE	ND		ug/kg	1.91	0.442	1	A
4,4'-DDD	ND		ug/kg	1.91	0.682	1	A
4,4'-DDT	ND		ug/kg	3.58	1.54	1	A
Endosulfan I	ND		ug/kg	1.91	0.451	1	A
Endosulfan II	ND		ug/kg	1.91	0.638	1	A
Endosulfan sulfate	ND		ug/kg	0.796	0.379	1	A
Methoxychlor	ND		ug/kg	3.58	1.11	1	A
Toxaphene	ND		ug/kg	35.8	10.0	1	A
cis-Chlordane	ND		ug/kg	2.39	0.666	1	A
trans-Chlordane	ND		ug/kg	2.39	0.631	1	A
Chlordane	ND		ug/kg	15.9	6.33	1	A

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-04  
 Client ID: AT5596CECS-04 BORINGS: 17,18,19  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	121		30-150	A
Decachlorobiphenyl	99		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	108		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-05  
 Client ID: AT5596CECS-05 BORINGS: 21,22,23  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 09/23/20 12:05  
 Analyst: BM  
 Percent Solids: 84%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 17:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.81	0.355	1	A
Lindane	ND		ug/kg	0.755	0.337	1	A
Alpha-BHC	ND		ug/kg	0.755	0.214	1	A
Beta-BHC	ND		ug/kg	1.81	0.687	1	A
Heptachlor	ND		ug/kg	0.906	0.406	1	A
Aldrin	ND		ug/kg	1.81	0.638	1	A
Heptachlor epoxide	ND		ug/kg	3.40	1.02	1	A
Endrin	ND		ug/kg	0.755	0.309	1	A
Endrin aldehyde	ND		ug/kg	2.26	0.792	1	A
Endrin ketone	ND		ug/kg	1.81	0.466	1	A
Dieldrin	ND		ug/kg	1.13	0.566	1	A
4,4'-DDE	0.683	J	ug/kg	1.81	0.419	1	A
4,4'-DDD	ND		ug/kg	1.81	0.646	1	A
4,4'-DDT	ND		ug/kg	3.40	1.46	1	A
Endosulfan I	ND		ug/kg	1.81	0.428	1	A
Endosulfan II	ND		ug/kg	1.81	0.605	1	A
Endosulfan sulfate	ND		ug/kg	0.755	0.359	1	A
Methoxychlor	ND		ug/kg	3.40	1.06	1	A
Toxaphene	ND		ug/kg	34.0	9.51	1	A
cis-Chlordane	ND		ug/kg	2.26	0.631	1	A
trans-Chlordane	2.01	JIP	ug/kg	2.26	0.598	1	A
Chlordane	ND		ug/kg	15.1	6.00	1	A

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-05  
 Client ID: AT5596CECS-05 BORINGS: 21,22,23  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	1120	Q	30-150	A
Decachlorobiphenyl	92		30-150	A
2,4,5,6-Tetrachloro-m-xylene	91		30-150	B
Decachlorobiphenyl	110		30-150	B

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-06  
 Client ID: AT5596CECS-06 BORINGS: 24,25  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 09/23/20 12:17  
 Analyst: SM  
 Percent Solids: 79%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 17:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.92	0.376	1	A
Lindane	ND		ug/kg	0.801	0.358	1	A
Alpha-BHC	ND		ug/kg	0.801	0.228	1	A
Beta-BHC	ND		ug/kg	1.92	0.729	1	A
Heptachlor	ND		ug/kg	0.961	0.431	1	A
Aldrin	ND		ug/kg	1.92	0.677	1	A
Heptachlor epoxide	ND		ug/kg	3.60	1.08	1	A
Endrin	ND		ug/kg	0.801	0.328	1	A
Endrin aldehyde	ND		ug/kg	2.40	0.841	1	A
Endrin ketone	ND		ug/kg	1.92	0.495	1	A
Dieldrin	ND		ug/kg	1.20	0.601	1	A
4,4'-DDE	ND		ug/kg	1.92	0.445	1	A
4,4'-DDD	ND		ug/kg	1.92	0.686	1	A
4,4'-DDT	ND		ug/kg	3.60	1.55	1	A
Endosulfan I	ND		ug/kg	1.92	0.454	1	A
Endosulfan II	ND		ug/kg	1.92	0.642	1	A
Endosulfan sulfate	ND		ug/kg	0.801	0.381	1	A
Methoxychlor	ND		ug/kg	3.60	1.12	1	A
Toxaphene	ND		ug/kg	36.0	10.1	1	A
cis-Chlordane	ND		ug/kg	2.40	0.670	1	A
trans-Chlordane	ND		ug/kg	2.40	0.634	1	A
Chlordane	ND		ug/kg	16.0	6.37	1	A

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-06  
 Client ID: AT5596CECS-06 BORINGS: 24,25  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	107		30-150	A
Decachlorobiphenyl	95		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	101		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-07  
 Client ID: AT5596CECS-07 BORINGS: 26,27  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 09/23/20 12:28  
 Analyst: SM  
 Percent Solids: 82%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 17:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.92	0.376	1	A
Lindane	ND		ug/kg	0.799	0.357	1	A
Alpha-BHC	ND		ug/kg	0.799	0.227	1	A
Beta-BHC	ND		ug/kg	1.92	0.727	1	A
Heptachlor	ND		ug/kg	0.959	0.430	1	A
Aldrin	ND		ug/kg	1.92	0.675	1	A
Heptachlor epoxide	ND		ug/kg	3.60	1.08	1	A
Endrin	ND		ug/kg	0.799	0.328	1	A
Endrin aldehyde	ND		ug/kg	2.40	0.839	1	A
Endrin ketone	ND		ug/kg	1.92	0.494	1	A
Dieldrin	ND		ug/kg	1.20	0.599	1	A
4,4'-DDE	ND		ug/kg	1.92	0.443	1	A
4,4'-DDD	ND		ug/kg	1.92	0.684	1	A
4,4'-DDT	ND		ug/kg	3.60	1.54	1	A
Endosulfan I	ND		ug/kg	1.92	0.453	1	A
Endosulfan II	ND		ug/kg	1.92	0.641	1	A
Endosulfan sulfate	ND		ug/kg	0.799	0.380	1	A
Methoxychlor	ND		ug/kg	3.60	1.12	1	A
Toxaphene	ND		ug/kg	36.0	10.1	1	A
cis-Chlordane	ND		ug/kg	2.40	0.668	1	A
trans-Chlordane	ND		ug/kg	2.40	0.633	1	A
Chlordane	ND		ug/kg	16.0	6.35	1	A



**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-07  
 Client ID: AT5596CECS-07 BORINGS: 26,27  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	139		30-150	A
Decachlorobiphenyl	116		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		30-150	B
Decachlorobiphenyl	116		30-150	B

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-08  
 Client ID: AT5596CECS-08 BORINGS: 28,29  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 09/23/20 12:39  
 Analyst: SM  
 Percent Solids: 87%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 17:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.74	0.342	1	A
Lindane	ND		ug/kg	0.727	0.325	1	A
Alpha-BHC	ND		ug/kg	0.727	0.206	1	A
Beta-BHC	ND		ug/kg	1.74	0.662	1	A
Heptachlor	ND		ug/kg	0.872	0.391	1	A
Aldrin	ND		ug/kg	1.74	0.614	1	A
Heptachlor epoxide	ND		ug/kg	3.27	0.982	1	A
Endrin	ND		ug/kg	0.727	0.298	1	A
Endrin aldehyde	ND		ug/kg	2.18	0.763	1	A
Endrin ketone	ND		ug/kg	1.74	0.449	1	A
Dieldrin	ND		ug/kg	1.09	0.545	1	A
4,4'-DDE	ND		ug/kg	1.74	0.404	1	A
4,4'-DDD	ND		ug/kg	1.74	0.622	1	A
4,4'-DDT	ND		ug/kg	3.27	1.40	1	A
Endosulfan I	ND		ug/kg	1.74	0.412	1	A
Endosulfan II	ND		ug/kg	1.74	0.583	1	A
Endosulfan sulfate	ND		ug/kg	0.727	0.346	1	A
Methoxychlor	ND		ug/kg	3.27	1.02	1	A
Toxaphene	ND		ug/kg	32.7	9.16	1	A
cis-Chlordane	ND		ug/kg	2.18	0.608	1	A
trans-Chlordane	ND		ug/kg	2.18	0.576	1	A
Chlordane	ND		ug/kg	14.5	5.78	1	A

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-08  
 Client ID: AT5596CECS-08 BORINGS: 28,29  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	133		30-150	A
Decachlorobiphenyl	105		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	107		30-150	B

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-09  
 Client ID: AT5596CECS-09 BORINGS: 41,43  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 09/23/20 12:51  
 Analyst: SM  
 Percent Solids: 80%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 17:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.88	0.368	1	A
Lindane	ND		ug/kg	0.783	0.350	1	A
Alpha-BHC	ND		ug/kg	0.783	0.222	1	A
Beta-BHC	ND		ug/kg	1.88	0.713	1	A
Heptachlor	ND		ug/kg	0.940	0.421	1	A
Aldrin	ND		ug/kg	1.88	0.662	1	A
Heptachlor epoxide	ND		ug/kg	3.52	1.06	1	A
Endrin	ND		ug/kg	0.783	0.321	1	A
Endrin aldehyde	ND		ug/kg	2.35	0.822	1	A
Endrin ketone	ND		ug/kg	1.88	0.484	1	A
Dieldrin	ND		ug/kg	1.17	0.587	1	A
4,4'-DDE	7.24	P	ug/kg	1.88	0.435	1	A
4,4'-DDD	6.72		ug/kg	1.88	0.670	1	A
4,4'-DDT	2.42	J	ug/kg	3.52	1.51	1	A
Endosulfan I	ND		ug/kg	1.88	0.444	1	A
Endosulfan II	ND		ug/kg	1.88	0.628	1	A
Endosulfan sulfate	ND		ug/kg	0.783	0.373	1	A
Methoxychlor	ND		ug/kg	3.52	1.10	1	A
Toxaphene	ND		ug/kg	35.2	9.87	1	A
cis-Chlordane	ND		ug/kg	2.35	0.655	1	A
trans-Chlordane	ND		ug/kg	2.35	0.620	1	A
Chlordane	ND		ug/kg	15.7	6.23	1	A

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-09  
 Client ID: AT5596CECS-09 BORINGS: 41,43  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	6650	Q	30-150	A
Decachlorobiphenyl	97		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	101		30-150	B

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-10  
 Client ID: AT5596CECS-11 BORINGS: 30,31  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 09/23/20 13:02  
 Analyst: SM  
 Percent Solids: 87%

Extraction Method: EPA 3546  
 Extraction Date: 09/20/20 17:56  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.79	0.350	1	A
Lindane	ND		ug/kg	0.745	0.333	1	A
Alpha-BHC	ND		ug/kg	0.745	0.212	1	A
Beta-BHC	ND		ug/kg	1.79	0.678	1	A
Heptachlor	ND		ug/kg	0.894	0.401	1	A
Aldrin	ND		ug/kg	1.79	0.630	1	A
Heptachlor epoxide	ND		ug/kg	3.35	1.00	1	A
Endrin	ND		ug/kg	0.745	0.305	1	A
Endrin aldehyde	ND		ug/kg	2.24	0.782	1	A
Endrin ketone	ND		ug/kg	1.79	0.460	1	A
Dieldrin	ND		ug/kg	1.12	0.559	1	A
4,4'-DDE	ND		ug/kg	1.79	0.414	1	A
4,4'-DDD	ND		ug/kg	1.79	0.638	1	A
4,4'-DDT	ND		ug/kg	3.35	1.44	1	A
Endosulfan I	ND		ug/kg	1.79	0.422	1	A
Endosulfan II	ND		ug/kg	1.79	0.598	1	A
Endosulfan sulfate	ND		ug/kg	0.745	0.355	1	A
Methoxychlor	ND		ug/kg	3.35	1.04	1	A
Toxaphene	ND		ug/kg	33.5	9.39	1	A
cis-Chlordane	ND		ug/kg	2.24	0.623	1	A
trans-Chlordane	ND		ug/kg	2.24	0.590	1	A
Chlordane	ND		ug/kg	14.9	5.92	1	A

**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-10  
 Client ID: AT5596CECS-11 BORINGS: 30,31  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	105		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	94		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039249-11  
 Client ID: AT5596CECS-10 BORINGS: 44,45  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 09/23/20 08:45  
 Analyst: SM  
 Percent Solids: 85%

Extraction Method: EPA 3546  
 Extraction Date: 09/22/20 13:24  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 09/23/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.84	0.360	1	A
Lindane	ND		ug/kg	0.765	0.342	1	A
Alpha-BHC	ND		ug/kg	0.765	0.217	1	A
Beta-BHC	ND		ug/kg	1.84	0.696	1	A
Heptachlor	ND		ug/kg	0.918	0.412	1	A
Aldrin	ND		ug/kg	1.84	0.647	1	A
Heptachlor epoxide	ND		ug/kg	3.44	1.03	1	A
Endrin	ND		ug/kg	0.765	0.314	1	A
Endrin aldehyde	ND		ug/kg	2.30	0.804	1	A
Endrin ketone	ND		ug/kg	1.84	0.473	1	A
Dieldrin	ND		ug/kg	1.15	0.574	1	A
4,4'-DDE	ND		ug/kg	1.84	0.425	1	A
4,4'-DDD	ND		ug/kg	1.84	0.655	1	A
4,4'-DDT	ND		ug/kg	3.44	1.48	1	A
Endosulfan I	ND		ug/kg	1.84	0.434	1	A
Endosulfan II	ND		ug/kg	1.84	0.614	1	A
Endosulfan sulfate	ND		ug/kg	0.765	0.364	1	A
Methoxychlor	ND		ug/kg	3.44	1.07	1	A
Toxaphene	ND		ug/kg	34.4	9.64	1	A
cis-Chlordane	ND		ug/kg	2.30	0.640	1	A
trans-Chlordane	ND		ug/kg	2.30	0.606	1	A
Chlordane	ND		ug/kg	15.3	6.08	1	A



**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039249-11  
 Client ID: AT5596CECS-10 BORINGS: 44,45  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	65		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8081B  
Analytical Date: 09/23/20 10:46  
Analyst: SM

Extraction Method: EPA 3546  
Extraction Date: 09/20/20 17:56  
Cleanup Method: EPA 3620B  
Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-10 Batch: WG1412292-1						
Delta-BHC	ND		ug/kg	1.52	0.298	A
Lindane	ND		ug/kg	0.634	0.284	A
Alpha-BHC	ND		ug/kg	0.634	0.180	A
Beta-BHC	ND		ug/kg	1.52	0.577	A
Heptachlor	ND		ug/kg	0.761	0.341	A
Aldrin	ND		ug/kg	1.52	0.536	A
Heptachlor epoxide	ND		ug/kg	2.86	0.856	A
Endrin	ND		ug/kg	0.634	0.260	A
Endrin aldehyde	ND		ug/kg	1.90	0.666	A
Endrin ketone	ND		ug/kg	1.52	0.392	A
Dieldrin	ND		ug/kg	0.952	0.476	A
4,4'-DDE	ND		ug/kg	1.52	0.352	A
4,4'-DDD	ND		ug/kg	1.52	0.543	A
4,4'-DDT	ND		ug/kg	2.86	1.22	A
Endosulfan I	ND		ug/kg	1.52	0.360	A
Endosulfan II	ND		ug/kg	1.52	0.509	A
Endosulfan sulfate	ND		ug/kg	0.634	0.302	A
Methoxychlor	ND		ug/kg	2.86	0.888	A
Toxaphene	ND		ug/kg	28.6	7.99	A
cis-Chlordane	ND		ug/kg	1.90	0.530	A
trans-Chlordane	ND		ug/kg	1.90	0.502	A
Chlordane	ND		ug/kg	12.7	5.04	A

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8081B  
Analytical Date: 09/23/20 10:46  
Analyst: SM

Extraction Method: EPA 3546  
Extraction Date: 09/20/20 17:56  
Cleanup Method: EPA 3620B  
Cleanup Date: 09/21/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-10 Batch: WG1412292-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	120		30-150	A
Decachlorobiphenyl	106		30-150	A
2,4,5,6-Tetrachloro-m-xylene	93		30-150	B
Decachlorobiphenyl	128		30-150	B

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8081B  
Analytical Date: 09/23/20 08:06  
Analyst: BM

Extraction Method: EPA 3546  
Extraction Date: 09/22/20 13:24  
Cleanup Method: EPA 3620B  
Cleanup Date: 09/23/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 11 Batch: WG1413011-1						
Delta-BHC	ND		ug/kg	1.57	0.308	A
Lindane	ND		ug/kg	0.654	0.292	A
Alpha-BHC	ND		ug/kg	0.654	0.186	A
Beta-BHC	ND		ug/kg	1.57	0.596	A
Heptachlor	ND		ug/kg	0.785	0.352	A
Aldrin	ND		ug/kg	1.57	0.553	A
Heptachlor epoxide	ND		ug/kg	2.94	0.884	A
Endrin	ND		ug/kg	0.654	0.268	A
Endrin aldehyde	ND		ug/kg	1.96	0.687	A
Endrin ketone	ND		ug/kg	1.57	0.404	A
Dieldrin	ND		ug/kg	0.982	0.491	A
4,4'-DDE	ND		ug/kg	1.57	0.363	A
4,4'-DDD	ND		ug/kg	1.57	0.560	A
4,4'-DDT	ND		ug/kg	2.94	1.26	A
Endosulfan I	ND		ug/kg	1.57	0.371	A
Endosulfan II	ND		ug/kg	1.57	0.525	A
Endosulfan sulfate	ND		ug/kg	0.654	0.312	A
Methoxychlor	ND		ug/kg	2.94	0.916	A
Toxaphene	ND		ug/kg	29.4	8.25	A
cis-Chlordane	ND		ug/kg	1.96	0.547	A
trans-Chlordane	ND		ug/kg	1.96	0.518	A
Chlordane	ND		ug/kg	13.1	5.20	A

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8081B  
Analytical Date: 09/23/20 08:06  
Analyst: BM

Extraction Method: EPA 3546  
Extraction Date: 09/22/20 13:24  
Cleanup Method: EPA 3620B  
Cleanup Date: 09/23/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 11 Batch: WG1413011-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	57		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039249

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-10 Batch: WG1412292-2 WG1412292-3									
Delta-BHC	67		72		30-150	7		30	A
Lindane	67		74		30-150	10		30	A
Alpha-BHC	74		82		30-150	10		30	A
Beta-BHC	82		85		30-150	4		30	A
Heptachlor	66		74		30-150	11		30	A
Aldrin	68		72		30-150	6		30	A
Heptachlor epoxide	62		70		30-150	12		30	A
Endrin	66		75		30-150	13		30	A
Endrin aldehyde	45		55		30-150	20		30	A
Endrin ketone	54		58		30-150	7		30	A
Dieldrin	67		75		30-150	11		30	A
4,4'-DDE	63		72		30-150	13		30	A
4,4'-DDD	66		75		30-150	13		30	A
4,4'-DDT	66		74		30-150	11		30	A
Endosulfan I	76		85		30-150	11		30	A
Endosulfan II	56		65		30-150	15		30	A
Endosulfan sulfate	48		54		30-150	12		30	A
Methoxychlor	74		81		30-150	9		30	A
cis-Chlordane	72		78		30-150	8		30	A
trans-Chlordane	71		83		30-150	16		30	A

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-10 Batch: WG1412292-2 WG1412292-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	96		103		30-150	A
Decachlorobiphenyl	93		101		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		76		30-150	B
Decachlorobiphenyl	99		98		30-150	B



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 Batch: WG1413011-2 WG1413011-3									
Delta-BHC	72		70		30-150	3		30	A
Lindane	67		67		30-150	0		30	A
Alpha-BHC	71		70		30-150	1		30	A
Beta-BHC	66		68		30-150	3		30	A
Heptachlor	67		66		30-150	2		30	A
Aldrin	68		68		30-150	0		30	A
Heptachlor epoxide	64		64		30-150	0		30	A
Endrin	66		65		30-150	2		30	A
Endrin aldehyde	54		47		30-150	14		30	A
Endrin ketone	62		59		30-150	5		30	A
Dieldrin	68		67		30-150	1		30	A
4,4'-DDE	66		68		30-150	3		30	A
4,4'-DDD	72		71		30-150	1		30	A
4,4'-DDT	69		68		30-150	1		30	A
Endosulfan I	60		62		30-150	3		30	A
Endosulfan II	62		62		30-150	0		30	A
Endosulfan sulfate	56		55		30-150	2		30	A
Methoxychlor	65		64		30-150	2		30	A
cis-Chlordane	58		61		30-150	5		30	A
trans-Chlordane	63		62		30-150	2		30	A



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039249

Report Date: 09/25/20

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 Batch: WG1413011-2 WG1413011-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	74		72		30-150	A
Decachlorobiphenyl	63		65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		71		30-150	B
Decachlorobiphenyl	65		59		30-150	B

## METALS

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-01

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-01 BORINGS: 5,6,8

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	6650		mg/kg	9.19	2.48	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Antimony, Total	0.432	J	mg/kg	4.60	0.349	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Arsenic, Total	7.02		mg/kg	0.919	0.191	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Barium, Total	71.6		mg/kg	0.919	0.160	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Beryllium, Total	0.432	J	mg/kg	0.460	0.030	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.919	0.090	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Calcium, Total	5840		mg/kg	9.19	3.22	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Chromium, Total	9.96		mg/kg	0.919	0.088	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Cobalt, Total	6.32		mg/kg	1.84	0.152	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Copper, Total	15.1		mg/kg	0.919	0.237	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Iron, Total	16300		mg/kg	4.60	0.830	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Lead, Total	7.87		mg/kg	4.60	0.246	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Magnesium, Total	4060		mg/kg	9.19	1.42	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Manganese, Total	186		mg/kg	0.919	0.146	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.076	0.050	1	09/24/20 08:35	09/24/20 17:50	EPA 7471B	1,7471B	AL
Nickel, Total	13.1		mg/kg	2.30	0.222	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Potassium, Total	428		mg/kg	230	13.2	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Selenium, Total	ND		mg/kg	1.84	0.237	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.919	0.260	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Sodium, Total	104	J	mg/kg	184	2.90	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Thallium, Total	ND		mg/kg	1.84	0.290	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Vanadium, Total	14.9		mg/kg	0.919	0.186	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV
Zinc, Total	38.9		mg/kg	4.60	0.269	2	09/24/20 08:00	09/24/20 19:02	EPA 3050B	1,6010D	BV



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-02

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-02 BORINGS: 10,11,12

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	8720		mg/kg	9.47	2.56	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Antimony, Total	0.928	J	mg/kg	4.74	0.360	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Arsenic, Total	16.4		mg/kg	0.947	0.197	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Barium, Total	180		mg/kg	0.947	0.165	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Beryllium, Total	0.701		mg/kg	0.474	0.031	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.947	0.093	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Calcium, Total	5380		mg/kg	9.47	3.32	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Chromium, Total	13.1		mg/kg	0.947	0.091	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Cobalt, Total	5.87		mg/kg	1.89	0.157	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Copper, Total	24.9		mg/kg	0.947	0.244	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Iron, Total	24000		mg/kg	4.74	0.855	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Lead, Total	12.7		mg/kg	4.74	0.254	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Magnesium, Total	2350		mg/kg	9.47	1.46	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Manganese, Total	127		mg/kg	0.947	0.151	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.079	0.052	1	09/24/20 08:35	09/24/20 17:52	EPA 7471B	1,7471B	AL
Nickel, Total	20.7		mg/kg	2.37	0.229	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Potassium, Total	701		mg/kg	237	13.6	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Selenium, Total	1.03	J	mg/kg	1.89	0.244	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.947	0.268	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Sodium, Total	260		mg/kg	189	2.98	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Thallium, Total	0.312	J	mg/kg	1.89	0.298	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Vanadium, Total	53.0		mg/kg	0.947	0.192	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV
Zinc, Total	34.8		mg/kg	4.74	0.278	2	09/24/20 08:00	09/24/20 19:06	EPA 3050B	1,6010D	BV



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-03

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-03 BORINGS: 13,15,16

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	9590		mg/kg	9.24	2.50	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Antimony, Total	0.508	J	mg/kg	4.62	0.351	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Arsenic, Total	6.69		mg/kg	0.924	0.192	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Barium, Total	119		mg/kg	0.924	0.161	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Beryllium, Total	0.592		mg/kg	0.462	0.031	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.924	0.091	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Calcium, Total	5430		mg/kg	9.24	3.24	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Chromium, Total	13.4		mg/kg	0.924	0.089	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Cobalt, Total	6.36		mg/kg	1.85	0.153	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Copper, Total	30.3		mg/kg	0.924	0.238	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Iron, Total	22800		mg/kg	4.62	0.835	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Lead, Total	8.68		mg/kg	4.62	0.248	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Magnesium, Total	2760		mg/kg	9.24	1.42	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Manganese, Total	204		mg/kg	0.924	0.147	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.077	0.050	1	09/24/20 08:35	09/24/20 17:58	EPA 7471B	1,7471B	AL
Nickel, Total	30.2		mg/kg	2.31	0.224	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Potassium, Total	669		mg/kg	231	13.3	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Selenium, Total	0.240	J	mg/kg	1.85	0.238	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.924	0.262	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Sodium, Total	237		mg/kg	185	2.91	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Thallium, Total	ND		mg/kg	1.85	0.291	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Vanadium, Total	94.4		mg/kg	0.924	0.188	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV
Zinc, Total	56.4		mg/kg	4.62	0.271	2	09/24/20 08:00	09/24/20 19:10	EPA 3050B	1,6010D	BV



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-04

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-04 BORINGS: 17,18,19

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	6920		mg/kg	9.37	2.53	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Antimony, Total	0.365	J	mg/kg	4.68	0.356	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Arsenic, Total	9.68		mg/kg	0.937	0.195	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Barium, Total	74.7		mg/kg	0.937	0.163	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Beryllium, Total	0.272	J	mg/kg	0.468	0.031	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.937	0.092	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Calcium, Total	6650		mg/kg	9.37	3.28	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Chromium, Total	10.6		mg/kg	0.937	0.090	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Cobalt, Total	6.96		mg/kg	1.87	0.156	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Copper, Total	13.6		mg/kg	0.937	0.242	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Iron, Total	21300		mg/kg	4.68	0.846	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Lead, Total	9.82		mg/kg	4.68	0.251	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Magnesium, Total	3810		mg/kg	9.37	1.44	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Manganese, Total	384		mg/kg	0.937	0.149	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Mercury, Total	0.072	J	mg/kg	0.078	0.051	1	09/24/20 08:35	09/24/20 18:00	EPA 7471B	1,7471B	AL
Nickel, Total	74.1		mg/kg	2.34	0.227	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Potassium, Total	620		mg/kg	234	13.5	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Selenium, Total	0.496	J	mg/kg	1.87	0.242	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.937	0.265	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Sodium, Total	126	J	mg/kg	187	2.95	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Thallium, Total	ND		mg/kg	1.87	0.295	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Vanadium, Total	586		mg/kg	0.937	0.190	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV
Zinc, Total	42.7		mg/kg	4.68	0.274	2	09/24/20 08:00	09/24/20 19:15	EPA 3050B	1,6010D	BV



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-05

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-05 BORINGS: 21,22,23

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	7560		mg/kg	9.30	2.51	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Antimony, Total	0.353	J	mg/kg	4.65	0.353	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Arsenic, Total	11.7		mg/kg	0.930	0.193	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Barium, Total	146		mg/kg	0.930	0.162	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Beryllium, Total	0.586		mg/kg	0.465	0.031	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.930	0.091	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Calcium, Total	4100		mg/kg	9.30	3.25	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Chromium, Total	12.9		mg/kg	0.930	0.089	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Cobalt, Total	5.82		mg/kg	1.86	0.154	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Copper, Total	13.7		mg/kg	0.930	0.240	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Iron, Total	15300		mg/kg	4.65	0.840	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Lead, Total	12.5		mg/kg	4.65	0.249	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Magnesium, Total	2740		mg/kg	9.30	1.43	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Manganese, Total	188		mg/kg	0.930	0.148	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.075	0.049	1	09/24/20 08:35	09/24/20 18:02	EPA 7471B	1,7471B	AL
Nickel, Total	13.9		mg/kg	2.32	0.225	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Potassium, Total	596		mg/kg	232	13.4	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Selenium, Total	0.325	J	mg/kg	1.86	0.240	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.930	0.263	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Sodium, Total	176	J	mg/kg	186	2.93	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Thallium, Total	ND		mg/kg	1.86	0.293	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Vanadium, Total	26.6		mg/kg	0.930	0.189	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV
Zinc, Total	33.3		mg/kg	4.65	0.272	2	09/24/20 08:00	09/24/20 19:19	EPA 3050B	1,6010D	BV



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-06

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-06 BORINGS: 24,25

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 79%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	10900		mg/kg	9.52	2.57	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Antimony, Total	0.819	J	mg/kg	4.76	0.362	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Arsenic, Total	3.54		mg/kg	0.952	0.198	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Barium, Total	77.6		mg/kg	0.952	0.166	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Beryllium, Total	0.647		mg/kg	0.476	0.031	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.952	0.093	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Calcium, Total	3090		mg/kg	9.52	3.33	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Chromium, Total	14.9		mg/kg	0.952	0.091	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Cobalt, Total	7.17		mg/kg	1.90	0.158	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Copper, Total	12.3		mg/kg	0.952	0.246	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Iron, Total	22000		mg/kg	4.76	0.860	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Lead, Total	9.26		mg/kg	4.76	0.255	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Magnesium, Total	3850		mg/kg	9.52	1.47	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Manganese, Total	261		mg/kg	0.952	0.151	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.080	0.052	1	09/24/20 08:35	09/24/20 18:04	EPA 7471B	1,7471B	AL
Nickel, Total	18.8		mg/kg	2.38	0.230	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Potassium, Total	477		mg/kg	238	13.7	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Selenium, Total	ND		mg/kg	1.90	0.246	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.952	0.269	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Sodium, Total	44.3	J	mg/kg	190	3.00	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Thallium, Total	ND		mg/kg	1.90	0.300	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Vanadium, Total	20.1		mg/kg	0.952	0.193	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV
Zinc, Total	66.2		mg/kg	4.76	0.279	2	09/24/20 08:00	09/24/20 19:23	EPA 3050B	1,6010D	BV





Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-07

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-07 BORINGS: 26,27

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	8490		mg/kg	9.45	2.55	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Antimony, Total	0.936	J	mg/kg	4.72	0.359	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Arsenic, Total	4.90		mg/kg	0.945	0.196	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Barium, Total	71.8		mg/kg	0.945	0.164	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Beryllium, Total	0.501		mg/kg	0.472	0.031	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.945	0.093	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Calcium, Total	6950		mg/kg	9.45	3.31	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Chromium, Total	12.4		mg/kg	0.945	0.091	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Cobalt, Total	8.34		mg/kg	1.89	0.157	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Copper, Total	20.2		mg/kg	0.945	0.244	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Iron, Total	19400		mg/kg	4.72	0.853	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Lead, Total	10.0		mg/kg	4.72	0.253	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Magnesium, Total	4390		mg/kg	9.45	1.46	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Manganese, Total	311		mg/kg	0.945	0.150	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.076	0.050	1	09/24/20 08:35	09/24/20 18:06	EPA 7471B	1,7471B	AL
Nickel, Total	22.0		mg/kg	2.36	0.229	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Potassium, Total	550		mg/kg	236	13.6	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Selenium, Total	0.463	J	mg/kg	1.89	0.244	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.945	0.267	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Sodium, Total	70.0	J	mg/kg	189	2.98	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Thallium, Total	ND		mg/kg	1.89	0.298	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Vanadium, Total	35.4		mg/kg	0.945	0.192	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV
Zinc, Total	53.6		mg/kg	4.72	0.277	2	09/24/20 08:00	09/24/20 19:28	EPA 3050B	1,6010D	BV



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-08

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-08 BORINGS: 28,29

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	6520		mg/kg	8.89	2.40	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Antimony, Total	1.12	J	mg/kg	4.44	0.338	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Arsenic, Total	5.04		mg/kg	0.889	0.185	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Barium, Total	51.4		mg/kg	0.889	0.155	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Beryllium, Total	0.338	J	mg/kg	0.444	0.029	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.889	0.087	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Calcium, Total	3940		mg/kg	8.89	3.11	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Chromium, Total	12.1		mg/kg	0.889	0.085	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Cobalt, Total	7.72		mg/kg	1.78	0.148	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Copper, Total	19.4		mg/kg	0.889	0.229	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Iron, Total	16600		mg/kg	4.44	0.802	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Lead, Total	19.0		mg/kg	4.44	0.238	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Magnesium, Total	4070		mg/kg	8.89	1.37	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Manganese, Total	347		mg/kg	0.889	0.141	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Mercury, Total	0.077		mg/kg	0.072	0.047	1	09/24/20 08:35	09/24/20 18:08	EPA 7471B	1,7471B	AL
Nickel, Total	15.0		mg/kg	2.22	0.215	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Potassium, Total	409		mg/kg	222	12.8	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Selenium, Total	0.382	J	mg/kg	1.78	0.229	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.889	0.251	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Sodium, Total	37.1	J	mg/kg	178	2.80	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Thallium, Total	0.284	J	mg/kg	1.78	0.280	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Vanadium, Total	13.7		mg/kg	0.889	0.180	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV
Zinc, Total	55.6		mg/kg	4.44	0.260	2	09/24/20 08:00	09/24/20 19:32	EPA 3050B	1,6010D	BV



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-09

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-09 BORINGS: 41,43

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	12700		mg/kg	9.92	2.68	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Antimony, Total	0.714	J	mg/kg	4.96	0.377	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Arsenic, Total	6.99		mg/kg	0.992	0.206	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Barium, Total	93.6		mg/kg	0.992	0.173	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Beryllium, Total	0.655		mg/kg	0.496	0.033	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.992	0.097	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Calcium, Total	26900		mg/kg	9.92	3.47	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Chromium, Total	17.3		mg/kg	0.992	0.095	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Cobalt, Total	11.8		mg/kg	1.98	0.165	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Copper, Total	28.5		mg/kg	0.992	0.256	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Iron, Total	28800		mg/kg	4.96	0.896	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Lead, Total	14.0		mg/kg	4.96	0.266	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Magnesium, Total	9500		mg/kg	9.92	1.53	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Manganese, Total	525		mg/kg	0.992	0.158	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.079	0.051	1	09/24/20 08:35	09/24/20 18:10	EPA 7471B	1,7471B	AL
Nickel, Total	26.2		mg/kg	2.48	0.240	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Potassium, Total	1360		mg/kg	248	14.3	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Selenium, Total	0.278	J	mg/kg	1.98	0.256	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.992	0.281	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Sodium, Total	131	J	mg/kg	198	3.12	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Thallium, Total	ND		mg/kg	1.98	0.312	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Vanadium, Total	22.0		mg/kg	0.992	0.201	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV
Zinc, Total	63.8		mg/kg	4.96	0.291	2	09/24/20 08:00	09/24/20 19:36	EPA 3050B	1,6010D	BV



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-10

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-11 BORINGS: 30,31

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	7050		mg/kg	8.91	2.40	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Antimony, Total	0.704	J	mg/kg	4.45	0.338	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Arsenic, Total	3.31		mg/kg	0.891	0.185	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Barium, Total	60.3		mg/kg	0.891	0.155	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Beryllium, Total	0.401	J	mg/kg	0.445	0.029	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.891	0.087	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Calcium, Total	5330		mg/kg	8.91	3.12	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Chromium, Total	10.6		mg/kg	0.891	0.086	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Cobalt, Total	7.54		mg/kg	1.78	0.148	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Copper, Total	15.1		mg/kg	0.891	0.230	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Iron, Total	16500		mg/kg	4.45	0.804	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Lead, Total	11.1		mg/kg	4.45	0.239	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Magnesium, Total	4030		mg/kg	8.91	1.37	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Manganese, Total	296		mg/kg	0.891	0.142	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.072	0.047	1	09/24/20 08:35	09/24/20 18:12	EPA 7471B	1,7471B	AL
Nickel, Total	17.8		mg/kg	2.23	0.216	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Potassium, Total	581		mg/kg	223	12.8	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Selenium, Total	ND		mg/kg	1.78	0.230	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.891	0.252	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Sodium, Total	65.5	J	mg/kg	178	2.80	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Thallium, Total	ND		mg/kg	1.78	0.280	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Vanadium, Total	25.5		mg/kg	0.891	0.181	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV
Zinc, Total	51.2		mg/kg	4.45	0.261	2	09/24/20 08:00	09/24/20 19:49	EPA 3050B	1,6010D	BV



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-11

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-10 BORINGS: 44,45

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	6780		mg/kg	9.17	2.48	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Antimony, Total	0.789	J	mg/kg	4.59	0.348	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Arsenic, Total	4.56		mg/kg	0.917	0.191	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Barium, Total	59.9		mg/kg	0.917	0.160	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Beryllium, Total	0.376	J	mg/kg	0.459	0.030	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.917	0.090	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Calcium, Total	5130		mg/kg	9.17	3.21	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Chromium, Total	13.8		mg/kg	0.917	0.088	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Cobalt, Total	6.90		mg/kg	1.83	0.152	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Copper, Total	12.0		mg/kg	0.917	0.237	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Iron, Total	18400		mg/kg	4.59	0.828	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Lead, Total	7.38		mg/kg	4.59	0.246	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Magnesium, Total	3400		mg/kg	9.17	1.41	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Manganese, Total	237		mg/kg	0.917	0.146	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.074	0.048	1	09/24/20 08:35	09/24/20 18:13	EPA 7471B	1,7471B	AL
Nickel, Total	15.0		mg/kg	2.29	0.222	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Potassium, Total	523		mg/kg	229	13.2	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Selenium, Total	ND		mg/kg	1.83	0.237	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.917	0.260	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Sodium, Total	76.7	J	mg/kg	183	2.89	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Thallium, Total	ND		mg/kg	1.83	0.289	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Vanadium, Total	19.3		mg/kg	0.917	0.186	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV
Zinc, Total	43.9		mg/kg	4.59	0.269	2	09/24/20 08:00	09/24/20 19:53	EPA 3050B	1,6010D	BV



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-11 Batch: WG1413536-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Antimony, Total	ND		mg/kg	2.00	0.152	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Arsenic, Total	ND		mg/kg	0.400	0.083	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Barium, Total	ND		mg/kg	0.400	0.070	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Beryllium, Total	ND		mg/kg	0.200	0.013	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.400	0.039	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Calcium, Total	1.84	J	mg/kg	4.00	1.40	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Chromium, Total	ND		mg/kg	0.400	0.038	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Cobalt, Total	ND		mg/kg	0.800	0.066	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Copper, Total	ND		mg/kg	0.400	0.103	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Iron, Total	0.812	J	mg/kg	2.00	0.361	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Lead, Total	ND		mg/kg	2.00	0.107	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Magnesium, Total	ND		mg/kg	4.00	0.616	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Manganese, Total	ND		mg/kg	0.400	0.064	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Nickel, Total	ND		mg/kg	1.00	0.097	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Potassium, Total	ND		mg/kg	100	5.76	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Selenium, Total	ND		mg/kg	0.800	0.103	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Silver, Total	ND		mg/kg	0.400	0.113	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Sodium, Total	2.74	J	mg/kg	80.0	1.26	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Thallium, Total	ND		mg/kg	0.800	0.126	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Vanadium, Total	ND		mg/kg	0.400	0.081	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV
Zinc, Total	ND		mg/kg	2.00	0.117	1	09/24/20 08:00	09/24/20 16:35	1,6010D	BV

### Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-11 Batch: WG1413538-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	09/24/20 08:35	09/24/20 17:36	1,7471B	AL



**Project Name:** BEACON ISLAND

**Lab Number:** L2039249

**Project Number:** AT5596

**Report Date:** 09/25/20

## Method Blank Analysis Batch Quality Control

### Prep Information

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Digestion Method: EPA 7471B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1413536-2 SRM Lot Number: D109-540								
Aluminum, Total	68		-		50-150	-		
Antimony, Total	145		-		19-250	-		
Arsenic, Total	102		-		70-130	-		
Barium, Total	95		-		75-125	-		
Beryllium, Total	99		-		75-125	-		
Cadmium, Total	96		-		75-125	-		
Calcium, Total	98		-		73-128	-		
Chromium, Total	97		-		70-130	-		
Cobalt, Total	97		-		75-125	-		
Copper, Total	100		-		75-125	-		
Iron, Total	89		-		35-165	-		
Lead, Total	99		-		72-128	-		
Magnesium, Total	89		-		62-138	-		
Manganese, Total	91		-		74-126	-		
Nickel, Total	96		-		70-130	-		
Potassium, Total	90		-		59-141	-		
Selenium, Total	103		-		68-132	-		
Silver, Total	101		-		68-131	-		
Sodium, Total	106		-		35-165	-		
Thallium, Total	99		-		68-131	-		
Vanadium, Total	93		-		59-141	-		



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND

**Project Number:** AT5596

**Lab Number:** L2039249

**Report Date:** 09/25/20

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1413536-2 SRM Lot Number: D109-540					
Zinc, Total	97	-	70-130	-	
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1413538-2 SRM Lot Number: D109-540					
Mercury, Total	91	-	60-140	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039249  
**Report Date:** 09/25/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11    QC Batch ID: WG1413536-3    QC Sample: L2038941-01    Client ID: MS Sample												
Aluminum, Total	9060	158	9850	500	Q	-	-		75-125	-		20
Antimony, Total	ND	39.5	31.2	79		-	-		75-125	-		20
Arsenic, Total	9.99	9.49	22.1	128	Q	-	-		75-125	-		20
Barium, Total	51.0	158	198	93		-	-		75-125	-		20
Beryllium, Total	0.236	3.95	3.67	87		-	-		75-125	-		20
Cadmium, Total	ND	4.03	3.07	76		-	-		75-125	-		20
Calcium, Total	1900	791	2830	118		-	-		75-125	-		20
Chromium, Total	22.6	15.8	33.9	71	Q	-	-		75-125	-		20
Cobalt, Total	8.45	39.5	41.0	82		-	-		75-125	-		20
Copper, Total	20.6	19.8	46.6	132	Q	-	-		75-125	-		20
Iron, Total	12600	79.1	13800	1520	Q	-	-		75-125	-		20
Lead, Total	12.5	40.3	48.6	90		-	-		75-125	-		20
Magnesium, Total	4820	791	5180	46	Q	-	-		75-125	-		20
Manganese, Total	299	39.5	355	142	Q	-	-		75-125	-		20
Nickel, Total	23.1	39.5	53.6	77		-	-		75-125	-		20
Potassium, Total	3350	791	4000	82		-	-		75-125	-		20
Selenium, Total	0.140J	9.49	8.53	90		-	-		75-125	-		20
Silver, Total	ND	23.7	20.4	86		-	-		75-125	-		20
Sodium, Total	199	791	935	93		-	-		75-125	-		20
Thallium, Total	0.136J	9.49	7.69	81		-	-		75-125	-		20
Vanadium, Total	22.2	39.5	55.5	84		-	-		75-125	-		20

### Matrix Spike Analysis Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11    QC Batch ID: WG1413536-3    QC Sample: L2038941-01    Client ID: MS Sample									
Zinc, Total	35.5	39.5	70.6	89	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-11    QC Batch ID: WG1413538-3    QC Sample: L2039634-01    Client ID: MS Sample									
Mercury, Total	0.386	0.143	0.793	284	Q	-	80-120	-	20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039249

Report Date: 09/25/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1413536-4 QC Sample: L2038941-01 Client ID: DUP Sample						
Chromium, Total	22.6	22.7	mg/kg	0		20
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1413538-4 QC Sample: L2039634-01 Client ID: DUP Sample						
Mercury, Total	0.386	1.21	mg/kg	103	Q	20

# **INORGANICS & MISCELLANEOUS**

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-01

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-01 BORINGS: 5,6,8

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	82.3		%	0.100	NA	1	-	09/22/20 09:17	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	09/23/20 18:45	09/24/20 11:09	1,9010C/9012B	AG
Chromium, Hexavalent	ND		mg/kg	0.972	0.194	1	09/20/20 11:38	09/21/20 12:47	1,7196A	DR



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-02

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-02 BORINGS: 10,11,12

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	79.5		%	0.100	NA	1	-	09/22/20 09:17	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.25	1	09/23/20 18:45	09/24/20 11:10	1,9010C/9012B	AG
Chromium, Hexavalent	ND		mg/kg	1.01	0.201	1	09/20/20 11:38	09/21/20 12:47	1,7196A	DR



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-03

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-03 BORINGS: 13,15,16

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	81.2		%	0.100	NA	1	-	09/22/20 09:17	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.25	1	09/23/20 18:45	09/24/20 11:11	1,9010C/9012B	AG
Chromium, Hexavalent	ND		mg/kg	0.985	0.197	1	09/20/20 11:38	09/21/20 12:47	1,7196A	DR





Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-04

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-04 BORINGS: 17,18,19

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	80.2		%	0.100	NA	1	-	09/22/20 09:17	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.25	1	09/23/20 18:45	09/24/20 11:12	1,9010C/9012B	AG
Chromium, Hexavalent	ND		mg/kg	0.998	0.200	1	09/20/20 11:38	09/21/20 12:47	1,7196A	DR



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-05

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-05 BORINGS: 21,22,23

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	83.9		%	0.100	NA	1	-	09/22/20 09:17	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	09/23/20 18:45	09/24/20 11:13	1,9010C/9012B	AG
Chromium, Hexavalent	ND		mg/kg	0.954	0.191	1	09/20/20 11:38	09/21/20 12:47	1,7196A	DR



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-06

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-06 BORINGS: 24,25

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	78.8		%	0.100	NA	1	-	09/22/20 09:17	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.26	1	09/23/20 18:45	09/24/20 11:14	1,9010C/9012B	AG
Chromium, Hexavalent	ND		mg/kg	1.02	0.203	1	09/20/20 11:38	09/21/20 12:47	1,7196A	DR



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-07

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-07 BORINGS: 26,27

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	82.4		%	0.100	NA	1	-	09/22/20 09:17	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	09/23/20 18:45	09/24/20 11:17	1,9010C/9012B	AG
Chromium, Hexavalent	ND		mg/kg	0.971	0.194	1	09/20/20 11:38	09/21/20 12:47	1,7196A	DR



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-08

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-08 BORINGS: 28,29

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	86.5		%	0.100	NA	1	-	09/22/20 09:17	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	09/23/20 18:45	09/24/20 11:44	1,9010C/9012B	AG
Chromium, Hexavalent	ND		mg/kg	0.925	0.185	1	09/20/20 11:38	09/21/20 12:47	1,7196A	DR



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-09

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-09 BORINGS: 41,43

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	80.0		%	0.100	NA	1	-	09/22/20 09:17	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	09/23/20 18:45	09/24/20 11:21	1,9010C/9012B	AG
Chromium, Hexavalent	ND		mg/kg	1.00	0.200	1	09/20/20 11:38	09/21/20 12:47	1,7196A	DR



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-10

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-11 BORINGS: 30,31

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	86.7		%	0.100	NA	1	-	09/22/20 09:17	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.22	1	09/23/20 18:45	09/24/20 11:22	1,9010C/9012B	AG
Chromium, Hexavalent	ND		mg/kg	0.923	0.184	1	09/20/20 11:38	09/21/20 12:47	1,7196A	DR



Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039249-11

Date Collected: 09/16/20 10:00

Client ID: AT5596CECS-10 BORINGS: 44,45

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	84.9		%	0.100	NA	1	-	09/22/20 09:17	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	09/23/20 22:40	09/24/20 16:48	1,9010C/9012B	AG
Chromium, Hexavalent	0.306	J	mg/kg	0.942	0.188	1	09/22/20 20:03	09/24/20 13:20	1,7196A	DR





Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-10 Batch: WG1412278-1									
Chromium, Hexavalent	ND	mg/kg	0.800	0.160	1	09/20/20 11:38	09/21/20 12:47	1,7196A	DR
General Chemistry - Westborough Lab for sample(s): 01-10 Batch: WG1413168-1									
Cyanide, Total	ND	mg/kg	0.94	0.20	1	09/23/20 18:45	09/24/20 11:39	1,9010C/9012B	AG
General Chemistry - Westborough Lab for sample(s): 11 Batch: WG1413187-1									
Chromium, Hexavalent	ND	mg/kg	0.800	0.160	1	09/22/20 20:03	09/24/20 13:20	1,7196A	DR
General Chemistry - Westborough Lab for sample(s): 11 Batch: WG1413211-1									
Cyanide, Total	ND	mg/kg	0.92	0.19	1	09/23/20 22:40	09/24/20 16:30	1,9010C/9012B	AG

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039249

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-10 Batch: WG1412278-2								
Chromium, Hexavalent	93		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-10 Batch: WG1413168-2 WG1413168-3								
Cyanide, Total	34	Q	62	Q	80-120	63	Q	35
General Chemistry - Westborough Lab Associated sample(s): 11 Batch: WG1413187-2								
Chromium, Hexavalent	101		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 11 Batch: WG1413211-2 WG1413211-3								
Cyanide, Total	73	Q	42	Q	80-120	54	Q	35

### Matrix Spike Analysis Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039249

Project Number: AT5596

Report Date: 09/25/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1412278-4 QC Sample: L2039249-10 Client ID: AT5596CECS-11 BORINGS: 30,31												
Chromium, Hexavalent	ND	1200	1280	106	-	-	-	-	75-125	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1413168-4 WG1413168-5 QC Sample: L2039249-07 Client ID: AT5596CECS-07 BORINGS: 26,27												
Cyanide, Total	ND	12	12	99	11	99	99	9	75-125	9	9	35
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1413187-4 QC Sample: L2039249-11 Client ID: AT5596CECS-10 BORINGS: 44,45												
Chromium, Hexavalent	0.306J	813	790	97	-	-	-	-	75-125	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1413211-4 WG1413211-5 QC Sample: L2039211-14 Client ID: MS Sample												
Cyanide, Total	ND	11	11	100	11	100	100	0	75-125	0	0	35

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039249

Report Date: 09/25/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1412278-6 QC Sample: L2039249-10 Client ID: AT5596CECS-11 BORINGS: 30,31						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-11 QC Batch ID: WG1412837-1 QC Sample: L2039249-01 Client ID: AT5596CECS-01 BORINGS: 5,6,8						
Solids, Total	82.3	80.8	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1413187-6 QC Sample: L2039249-11 Client ID: AT5596CECS-10 BORINGS: 44,45						
Chromium, Hexavalent	0.306J	ND	mg/kg	NC		20

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Serial\_No:**09252013:14  
**Lab Number:** L2039249  
**Report Date:** 09/25/20

**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(*)
L2039249-01A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L2039249-01B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CU-TI(180),PB-TI(180),V-TI(180),CO-TI(180),FE-TI(180),MN-TI(180),MG-TI(180),HG-T(28),CA-TI(180),NA-TI(180),CD-TI(180),K-TI(180)
L2039249-01C	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		HEXCR-7196(30)
L2039249-01D	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-01E	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-02A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L2039249-02B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),SB-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),CU-TI(180),V-TI(180),CO-TI(180),FE-TI(180),MG-TI(180),MN-TI(180),HG-T(28),K-TI(180),CA-TI(180),CD-TI(180),NA-TI(180)
L2039249-02C	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		HEXCR-7196(30)
L2039249-02D	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-02E	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-03A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L2039249-03B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),SB-TI(180),CU-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),V-TI(180),CO-TI(180),FE-TI(180),MG-TI(180),MN-TI(180),HG-T(28),NA-TI(180),CA-TI(180),CD-TI(180),K-TI(180)
L2039249-03C	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		HEXCR-7196(30)
L2039249-03D	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(14)

\*Values in parentheses indicate holding time in days



**Project Name:** BEACON ISLAND**Lab Number:** L2039249**Project Number:** AT5596**Report Date:** 09/25/20**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2039249-03E	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-04A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L2039249-04B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),TL-TI(180),NI-TI(180),AL-TI(180),CR-TI(180),PB-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),HG-T(28),FE-TI(180),MG-TI(180),MN-TI(180),NA-TI(180),K-TI(180),CA-TI(180),CD-TI(180)
L2039249-04C	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		HEXCR-7196(30)
L2039249-04D	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-04E	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-05A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L2039249-05B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),ZN-TI(180),SB-TI(180),SE-TI(180),CU-TI(180),PB-TI(180),V-TI(180),CO-TI(180),FE-TI(180),MN-TI(180),HG-T(28),MG-TI(180),NA-TI(180),K-TI(180),CD-TI(180),CA-TI(180)
L2039249-05C	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		HEXCR-7196(30)
L2039249-05D	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-05E	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-06A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L2039249-06B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),AL-TI(180),CR-TI(180),TL-TI(180),PB-TI(180),ZN-TI(180),CU-TI(180),SE-TI(180),SB-TI(180),CO-TI(180),V-TI(180),MG-TI(180),MN-TI(180),FE-TI(180),HG-T(28),NA-TI(180),CD-TI(180),K-TI(180),CA-TI(180)
L2039249-06C	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		HEXCR-7196(30)
L2039249-06D	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-06E	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-07A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)

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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2039249-07B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),TL-TI(180),NI-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CU-TI(180),V-TI(180),CO-TI(180),MN-TI(180),HG-T(28),FE-TI(180),MG-TI(180),CA-TI(180),NA-TI(180),K-TI(180),CD-TI(180)
L2039249-07C	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		HEXCR-7196(30)
L2039249-07D	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-07E	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-08A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L2039249-08B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),SB-TI(180),SE-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),MG-TI(180),MN-TI(180),HG-T(28),FE-TI(180),NA-TI(180),CA-TI(180),CD-TI(180),K-TI(180)
L2039249-08C	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		HEXCR-7196(30)
L2039249-08D	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-08E	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-09A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L2039249-09B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),AL-TI(180),CR-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),SB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),HG-T(28),MG-TI(180),FE-TI(180),MN-TI(180),CD-TI(180),NA-TI(180),CA-TI(180),K-TI(180)
L2039249-09C	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		HEXCR-7196(30)
L2039249-09D	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-09E	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-10A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L2039249-10B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),PB-TI(180),CO-TI(180),V-TI(180),HG-T(28),FE-TI(180),MN-TI(180),MG-TI(180),CD-TI(180),NA-TI(180),CA-TI(180),K-TI(180)
L2039249-10C	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		HEXCR-7196(30)



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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2039249-10D	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-10E	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-11A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L2039249-11B	Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),CU-TI(180),SB-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),V-TI(180),CO-TI(180),MG-TI(180),HG-T(28),FE-TI(180),MN-TI(180),K-TI(180),NA-TI(180),CA-TI(180),CD-TI(180)
L2039249-11C	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		HEXCR-7196(30)
L2039249-11D	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)
L2039249-11E	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8081(14),NYTCL-8082(14)



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## 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.
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.

### Footnotes

Report Format: DU Report with 'J' Qualifiers



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- 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.

**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'.

**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. If a 'Total' result is requested, the results of its individual components will also be reported.

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.)

**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 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.

Report Format: DU Report with 'J' Qualifiers



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**Data Qualifiers**

- 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.

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## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## 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

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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 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### 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.

**EPA TO-12** Non-methane organics

**EPA 3C** Fixed gases

**Biological Tissue Matrix:** EPA 3050B

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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, SM4500CI-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.**

### 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.**

#### 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**

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



L2039249

No: 13471

~~L2038249~~



# ATLANTIC TESTING LABORATORIES

## Environmental Chain-Of-Custody Record

**Albany**  
22 Corporate Drive  
Clifton Park, NY 12095  
518/583-9144 (T)  
518/583-9166 (F)  
atl@atltesting.com

**Binghamton**  
126 Park Avenue  
Binghamton, NY 13903  
607/773-1812 (T)  
607/773-1835 (F)  
lab@atltesting.com

**Canton**  
6431 U.S. Highway 11  
Canton, NY 13617  
315/386-4578 (T)  
315/386-1012 (F)  
lab@atltesting.com

**Elmira**  
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607/737-0700 (T)  
607/737-0714 (F)  
lab@atltesting.com

**Plattsburgh**  
130 Arizona Ave  
Plattsburgh, NY 12903  
518/563-5878 (T)  
518/563-1321 (F)  
lab@atltesting.com

**Poughkeepsie**  
251 Upper North Road  
Highland, NY 12528  
845/691-6098 (T)  
845/691-6099 (F)  
lab@atltesting.com

**Rochester**  
3495 Winton Place  
Rochester, NY 14623  
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585/427-9021 (F)  
lab@atltesting.com

**Syracuse**  
9085 Court Street Road  
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315/699-5261 (T)  
315/699-3374 (F)  
lab@atltesting.com

**Utica**  
301 St. Anthony Street  
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315/735-3305 (T)  
315/735-0742 (F)  
lab@atltesting.com

**Watertown**  
26581 NYS Route 283  
Watertown, NY 13601  
315/786-7887 (T)  
315/786-2022 (F)  
lab@atltesting.com

Project No.		Client Name		QA/QC Code		Parameters						Report Distribution				
AT 5596		McFarland Johnson Inc.		<input type="checkbox"/> NYSDEC <input type="checkbox"/> SW-646 <input type="checkbox"/> NYSDOH <input type="checkbox"/> CLP <input type="checkbox"/> Other		TAL Metals	Hex. Chrom.	Total Cyanide	Semi VOC	Pesticides	PCB	TAT Required:	<input type="checkbox"/> 6hr <input type="checkbox"/> 12hr <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 5day <input checked="" type="checkbox"/> 10day <input type="checkbox"/> Other			
ATL Project Contact:		Project Location		E-mail Results:								Notes:		Laboratory Sample ID No.		Custody Seal: X= Intact
Project Name:		Glenmont, NY		CDashnaw@atltesting.com												
Date	Time	Field Sample No.	Sample Location	Sample Type	No. of Containers											
9/16	1000	AT5596CECS-01	Borings: 5, 6, 8	CS	5	X	X	X	X	X	X					
		AT5596CECS-02	Borings: 10, 11, 12	CS	5	X	X	X	X	X	X					
		AT5596CECS-03	Borings: 13, 15, 16	CS	5	X	X	X	X	X	X					
		AT5596CECS-04	Borings: 17, 18, 19	CS	5	X	X	X	X	X	X					
		AT5596CECS-05	Borings: 21, 22, 23	CS	5	X	X	X	X	X	X					
		AT5596CECS-06	Borings: 24, 25	CS	5	X	X	X	X	X	X					
		AT5596CECS-07	Borings: 26, 27	CS	5	X	X	X	X	X	X					
		AT5596CECS-08	Borings: 28, 29	CS	5	X	X	X	X	X	X					
		AT5596CECS-09	Borings: 41, 43	CS	5	X	X	X	X	X	X					
Samplers Name:		Matt Clum		Date:	09/17/20	Received for Name:		Philip W. Morrissey Jr		Date:		Shipment Rec'd Intact?				
Samplers Signature:		Kyle Crawford (for)		Time:		Laboratory Signature:		Philip W. Morrissey Jr		Time:		<input type="checkbox"/> YES <input type="checkbox"/> NO				
Samples Relinquished By:				Samples Received By:				Sample Type Code Key:				Laboratory Remarks				
Name:	Kyle Crawford	Date:	9/18	Name:	Jim Conby ATL	Date:	9/18/20	Description								
Signature:	Kyle Crawford	Time:		Signature:	Jim Conby	Time:	9:46	C	Composite	Q	QA/QC					
Name:	Jim Conby	Date:	9-18-20	Name:	Nick Thayer	Date:	9/18/20	G	Grab	O	Other					
Signature:	Jim Conby	Time:		Signature:	Nicholas Thayer	Time:	13:56	DW	Drinking Water	S	Soil					
								GW	Groundwater	SL	Sledge					
								WW	Wastewater	SW	Solid Waste					
								SM	Stormwater	B	Bulk					
								O	Oil	WP	Wipe					
								L	Liquid	A	Air					

Distribution: White with Samples  
Pink to ATL Files

Nick Thayer  
Nicholas Thayer 9/18/20 - 1343

Wm Mc 9/18/20 1343



L258199



# ATLANTIC TESTING LABORATORIES

## Environmental Chain-Of-Custody Record

**Albany**  
22 Corporate Drive  
Clifton Park, NY 12065  
518-883-9144 (T)  
518-883-9166 (F)  
atl@atl-testing.com

**Binghamton**  
126 Park Avenue  
Binghamton, NY 13903  
607-773-1812 (T)  
607-773-1835 (F)  
atl@atl-testing.com

**Canton**  
6431 U.S. Highway 11  
Canton, NY 13617  
315-386-4578 (T)  
315-386-1012 (F)  
atl@atl-testing.com

**Elmira**  
2330 Route 352  
Elmira, NY 14903  
607-737-0700 (T)  
607-737-0714 (F)  
atl@atl-testing.com

**Plattsburgh**  
130 Arizona Ave  
Plattsburgh, NY 12903  
518-563-5878 (T)  
518-562-1321 (F)  
atl@atl-testing.com

**Poughkeepsie**  
251 Upper North Road  
Highland, NY 12528  
845-691-8098 (T)  
845-691-8099 (F)  
atl@atl-testing.com

**Rochester**  
3485 Winton Place  
Rochester, NY 14623  
585-427-9020 (T)  
585-427-9021 (F)  
atl@atl-testing.com

**Syracuse**  
8085 Court Street Road  
Syracuse, NY 13200  
315-699-5281 (T)  
315-699-3374 (F)  
atl@atl-testing.com

**Utica**  
301 St. Anthony Street  
Utica, NY 13501  
315-735-3308 (T)  
315-735-0742 (F)  
atl@atl-testing.com

**Watertown**  
26581 NYS Route 283  
Watertown, NY 13601  
315-786-7887 (T)  
315-786-2022 (F)  
atl@atl-testing.com

Project No.		Client Name		OAK/C Code		Parameters						Report Distribution	
AT5596		McFarland Johnson Inc.		<input type="checkbox"/> NYSDEC <input type="checkbox"/> SW-846 <input type="checkbox"/> NYSDOH <input type="checkbox"/> CLP <input type="checkbox"/> Other		TAL Metals	Hex. Chrom.	Total Cyanide	Semi VOC	Pesticides	PCB	TAT Required:	<input type="checkbox"/> 6hr <input type="checkbox"/> 12hr <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 5day <input checked="" type="checkbox"/> 10day <input type="checkbox"/> Other
Page 2 of 2		ATL Project Contact: Cheyanne Dashnaw		Project Location: Glenmont, NY								E-mail Results: <u>cdashnaw@atl-testing.com</u>	
Project Name: Beacon Island		Date: 9/16		Time: 1000								Field Sample No.: AT5596CECS10	
Date: 9/16		Time: 1000		Field Sample No.: AT5596CECS10		Sample Location: Borings 44, 45		Sample Type: CS		No. of Containers: 5		<input checked="" type="checkbox"/> TAL Metals <input checked="" type="checkbox"/> Hex. Chrom. <input checked="" type="checkbox"/> Total Cyanide <input checked="" type="checkbox"/> Semi VOC <input checked="" type="checkbox"/> Pesticides <input checked="" type="checkbox"/> PCB	
Samplers Name: Knut Gliddi		Date: 9/17/20		Received for Name:		Date:		Shipment Rec'd Intact?		<input type="checkbox"/> YES <input type="checkbox"/> NO			
Samplers Signature: Kyle Crawford (for)		Time:		Laboratory Signature:		Time:		Philip W. Morrissey Jr Kyle Crawford					
Samples Relinquished By:				Samples Received By:				Sample Type Code Key:					
Name: Kyle Crawford		Date: 9/18		Name: Jim Conby AAL		Date: 9/18/20		Description:		Laboratory Remarks			
Signature: Kyle Crawford		Time:		Signature: Jim Conby		Time: 12:46		C Composite O OAK/OC G Grab O Other DW Drinking Water S Soil GW Groundwater SL Sludge WW Wastewater WS Solid Waste SM Stormwater B Bulk O Os WP Waste L Liquid A Air					
Name: Jim Conby		Date: 9-18-20		Name: Nicholas Thayer		Date: 9/18/20							
Signature: Jim Conby		Time:		Signature: Nicholas Thayer		Time: 13:50							

Distribution: White with Samples  
Pink to ATL Files





# ATLANTIC TESTING LABORATORIES

## Environmental Chain-Of-Custody Record

L2039249

No: 13471

~~L2038249~~

**Albany**  
22 Corporate Drive  
Clifton Park, NY 12095  
518/383-9144 (T)  
518/383-9166 (F)  
labAT1@atlantictesting.com

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607/773-1835 (F)  
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**Canton**  
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Canton, NY 13617  
315/386-4578 (T)  
315/386-1012 (F)  
labCT1@atlantictesting.com

**Elmira**  
2390 Route 352  
Elmira, NY 14903  
607/737-0700 (T)  
607/737-0714 (F)  
labET1@atlantictesting.com

**Plattsburgh**  
130 Arizona Ave  
Plattsburgh, NY 12903  
518/563-5878 (T)  
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**Poughkeepsie**  
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845/691-6099 (F)  
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**Rochester**  
3495 Winton Place  
Rochester, NY 14623  
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**Syracuse**  
8085 Court Street Road  
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315/699-3374 (F)  
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**Utica**  
301 St. Anthony Street  
Utica, NY 13501  
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315/735-0742 (F)  
labUT1@atlantictesting.com

**Watertown**  
26581 NYS Route 283  
Watertown, NY 13601  
315/786-7887 (T)  
315/786-2022 (F)  
labWT1@atlantictesting.com

Project No.		Client Name		QA/QC Code		Parameters						Report Distribution		
AT 5596		McFarland Johnson Inc.		<input type="checkbox"/> NYSDEC	<input type="checkbox"/> SW-846	TAL Metals	Hex. Chrom.	Total Granide	Semi VOC	Pesticides	PCB	TAT Required:	<input type="checkbox"/> 8hr <input type="checkbox"/> 12hr <input type="checkbox"/> 24hr	
Page 1 of 2				<input type="checkbox"/> NYSDOH	<input type="checkbox"/> CLP							E-mail Results:		<input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 5day
ATL Project Contact:		Cheyanne Dashnaw		Project Location:								labAT1@atlantictesting.com		<input checked="" type="checkbox"/> 10day
Project Name:		Beacon Island		Glenmont, NY		Notes		Laboratory Sample ID No.		Custody Seal: X= intact				
Date	Time	Field Sample No.	Sample Location	Sample Type	No. of Containers									
9/16	1000	AT5596CECS-01	Borings: 5, 6, 8	CS	5	X	X	X	X	X	X			
		AT5596CECS-02	Borings: 10, 11, 12	CS	5	X	X	X	X	X	X			
		AT5596CECS-03	Borings: 13, 15, 16	CS	5	X	X	X	X	X	X			
		AT5596CECS-04	Borings: 17, 18, 19	CS	5	X	X	X	X	X	X			
		AT5596CECS-05	Borings: 21, 22, 23	CS	5	X	X	X	X	X	X			
		AT5596CECS-06	Borings: 24, 25	CS	5	X	X	X	X	X	X			
		AT5596CECS-07	Borings: 26, 27	CS	5	X	X	X	X	X	X			
		AT5596CECS-08	Borings: 41, 43	CS	5	X	X	X	X	X	X			
		AT5596CECS-09	Borings: 44, 45	CS	5	X	X	X	X	X	X			
Samplers Name:		Matt Clum		Date:	09/17/20	Received for Name:				Date:		Shipment Rec'd Intact?		
Samplers Signature:		Kyle Crawford (for)		Time:		Laboratory Signature:				Time:		<input type="checkbox"/> YES <input type="checkbox"/> NO		
Samples Relinquished By:				Samples Received By:				Sample Type Code Key:		Laboratory Remarks:				
Name:	Kyle Crawford	Date:	9/18	Name:	Jim Conby AAL	Date:	9/18/20	Description:						
Signature:	Kyle Crawford	Time:		Signature:	Jim Conby	Time:	9:46	C	Composite	Q	QA/QC			
Name:	Jim Conby	Date:	9-18-20	Name:	Nick Thayer	Date:	9/18/20	G	Grat.	O	Other			
Signature:	Jim Conby	Time:		Signature:	Nick Thayer	Time:	13:56	Matrix:						
								DW	Drinking Water	S	Soil			
								GW	Groundwater	SL	Sludge			
								WW	Wastewater	WS	Solid Waste			
								SM	Stormwater	B	Bulk			
								O	Oil	WP	Wipe			
								L	Liquid	A	Air			

Distribution: White with Samples  
Pink to ATL Files

Nick Thayer  
Nicholas Thayer 9/18/20 - 1343  
Wen M  
9/18/20 1343



~~L2039249~~



# ATLANTIC TESTING LABORATORIES

## Environmental Chain-Of-Custody Record

**Albany**  
22 Corporate Drive  
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518/383-9144 (T)  
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**Plattsburgh**  
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518/562-1321 (F)  
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**Poughkeepsie**  
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**Rochester**  
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315/699-3374 (F)  
atlst@atlantictesting.com

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315/786-2022 (F)  
atlwt@atlantictesting.com

Project No.		Client Name		QA/QC Code		Parameters						Report Distribution		Custody Seal: X= Intact			
AT5596		McFarland Johnson Inc.		<input type="checkbox"/> NYSDEC	<input type="checkbox"/> SW-846	TAL Metals	Hex. Chrom.	Total Cyanide	Semi VOC	Pesticides	PCB	TAT Required:	<input type="checkbox"/> 6hr <input type="checkbox"/> 12hr <input type="checkbox"/> 24hr				
Page 2 of 2				<input type="checkbox"/> NYSDOH	<input type="checkbox"/> CLP							E-mail Results:	<input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 5day				
ATL Project Contact:		Cheyanne Dashnaw		Project Location								X 10day			<input type="checkbox"/> Other		CDashnaw@atlantictesting.com
Project Name:		Beacon Island		Glenmont, NY								@atlantictesting.com		Laboratory Sample ID No.		Notes	
Date	Time	Field Sample No.	Sample Location	Sample Type	No. of Containers												
9/11/20	1000	AT5596-02511	Borings: 30, 31	CS	5	X	X	X	X	X	X						

*Kyle Crawford*

Samplers Name:	Knut Gliiddi	Date:	9/17/20	Received for Name:		Date:		Shipment Rec'd Intact?
Samplers Signature:	<i>Kyle Crawford (for)</i>	Time:		Laboratory Signature:		Time:		<input type="checkbox"/> YES <input type="checkbox"/> NO

Samples Relinquished By:				Samples Received By:				Sample Type Code Key:				Laboratory Remarks:
Name:	Date:	Signature:	Time:	Name:	Date:	Signature:	Time:	Description	Code	Matrix	Code	
Kyle Crawford	9/18	<i>Kyle Crawford</i>		Jim Conby AAL	9/18/20	<i>Jim Conby</i>	7:46	C Composite	O	QA/QC		
Jim Conby	9-18-20	<i>Jim Conby</i>		Nicholas Thayer	9/18/20	<i>Nicholas Thayer</i>	13:50	G Grab	O	Other		
								DW Drinking Water	S	Soil		
								GW Groundwater	SL	Sludge		
								IWW Wastewater	WS	Solid Waste		
								SW Stormwater	B	Bulk		
								O Oil	WP	Wipe		
								L Liquid	A	Air		

*Nicholas Thayer*  
*Nicholas Thayer* 9/18/20 - 1843 *mmmm* 9/18/20 1813

Distribution: White with Samples  
Pink to ATL Files



## ANALYTICAL REPORT

Lab Number:	L2039252
Client:	Atlantic Testing Laboratories, Limited 22 Corporate Drive Clifton Park, NY 12065
ATTN:	Cheyenne Dashnaw
Phone:	(518) 383-9144
Project Name:	BEACON ISLAND
Project Number:	AT5596
Report Date:	09/25/20

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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](http://www.alphalab.com)



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2039252-01	AT5596CE01	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-02	AT5596CE02	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-03	AT5596CE03	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-04	AT5596CE04	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-05	AT5596CE05	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-06	AT5596CE06	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-07	AT5596CE07	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-08	AT5596CE08	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-09	AT5596CE09	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-10	AT5596CE10	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-11	AT5596CE11	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-12	AT5596CE12	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-13	AT5596CE13	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-14	AT5596CE14	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-15	AT5596CE15	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-16	AT5596CE16	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-17	AT5596CE17	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-18	AT5596CE18	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-19	AT5596CE19	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-20	AT5596CE20	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-21	AT5596CE21	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20
L2039252-22	AT5596CE22	SOIL	GLENMONT, NY	09/16/20 10:00	09/18/20

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

### 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.

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**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

### 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

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

L2039252-17: The internal standard (IS) response for 1,4-dichlorobenzene-d4 (49%) was outside the acceptance criteria; however, re-analysis achieved similar results: chlorobenzene-d5 (19%), 1,4-dichlorobenzene-d4 (3%) and the surrogate recoveries for 1,2-dichloroethane-d4 (143%), toluene-d8 (199%), 4-bromofluorobenzene (208%) and dibromofluoromethane (155%). The results of both analyses are reported. The WG1414605-5 Method Blank, associated with L2039252-05, -07, -10, -14, and -15, has a concentration above the reporting limit for bromomethane. Since the samples were non-detect to the RL for this target analyte, no further actions were taken. The results of the original analysis are reported.

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:  Melissa Sturgis

Title: Technical Director/Representative

Date: 09/25/20

# ORGANICS

# VOLATILES



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-01  
 Client ID: AT5596CE01  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 09:33  
 Analyst: AD  
 Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.3	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.15	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.13	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.28	1
Tetrachloroethene	ND		ug/kg	0.53	0.21	1
Chlorobenzene	ND		ug/kg	0.53	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.74	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.53	0.18	1
Bromodichloromethane	ND		ug/kg	0.53	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.53	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.53	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.53	0.17	1
Bromoform	ND		ug/kg	4.2	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.53	0.18	1
Benzene	ND		ug/kg	0.53	0.18	1
Toluene	ND		ug/kg	1.1	0.58	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.2	0.99	1
Bromomethane	ND		ug/kg	2.1	0.62	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1



Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-01  
 Client ID: AT5596CE01  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.53	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.60	1
o-Xylene	ND		ug/kg	1.1	0.31	1
Xylenes, Total	ND		ug/kg	1.1	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.14	1
Dibromomethane	ND		ug/kg	2.1	0.25	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	0.97	1
Acetone	ND		ug/kg	11	5.1	1
Carbon disulfide	ND		ug/kg	11	4.8	1
2-Butanone	ND		ug/kg	11	2.4	1
Vinyl acetate	ND		ug/kg	11	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.14	1
2-Hexanone	ND		ug/kg	11	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.53	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.15	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.2	0.18	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.2	0.69	1
Acrylonitrile	ND		ug/kg	4.2	1.2	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-01  
**Client ID:** AT5596CE01  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.1	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.36	1
1,4-Dioxane	ND		ug/kg	85	37.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.19	1
p-Ethyltoluene	ND		ug/kg	2.1	0.41	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.36	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.3	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	98		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-02  
 Client ID: AT5596CE02  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 09:58  
 Analyst: AD  
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.8	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.14	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.58	0.23	1
Chlorobenzene	ND		ug/kg	0.58	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.6	0.80	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	0.19	1
Bromodichloromethane	ND		ug/kg	0.58	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.58	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.58	0.18	1
Bromoform	ND		ug/kg	4.6	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	0.19	1
Benzene	ND		ug/kg	0.58	0.19	1
Toluene	ND		ug/kg	1.2	0.63	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.6	1.1	1
Bromomethane	ND		ug/kg	2.3	0.67	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.52	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-02  
 Client ID: AT5596CE02  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.58	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.65	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.27	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.0	1
Acetone	30		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.2	1
2-Butanone	3.7	J	ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.5	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.32	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.58	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.19	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.3	0.14	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.6	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.12	1
Naphthalene	ND		ug/kg	4.6	0.75	1
Acrylonitrile	ND		ug/kg	4.6	1.3	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-02  
 Client ID: AT5596CE02  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.37	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.31	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.38	1
1,4-Dioxane	ND		ug/kg	92	40.	1
p-Diethylbenzene	ND		ug/kg	2.3	0.20	1
p-Ethyltoluene	ND		ug/kg	2.3	0.44	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.3	0.22	1
Ethyl ether	ND		ug/kg	2.3	0.39	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	127		70-130
Dibromofluoromethane	97		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-03  
 Client ID: AT5596CE03  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 10:23  
 Analyst: AD  
 Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.0	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.28	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.60	0.23	1
Chlorobenzene	ND		ug/kg	0.60	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.8	0.83	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	0.60	0.20	1
Bromodichloromethane	ND		ug/kg	0.60	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.33	1
cis-1,3-Dichloropropene	ND		ug/kg	0.60	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.60	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.60	0.19	1
Bromoform	ND		ug/kg	4.8	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.60	0.20	1
Benzene	ND		ug/kg	0.60	0.20	1
Toluene	ND		ug/kg	1.2	0.65	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.8	1.1	1
Bromomethane	ND		ug/kg	2.4	0.70	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.54	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-03  
**Client ID:** AT5596CE03  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.60	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.67	1
o-Xylene	ND		ug/kg	1.2	0.35	1
Xylenes, Total	ND		ug/kg	1.2	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.8	1
Carbon disulfide	ND		ug/kg	12	5.4	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.60	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.8	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.8	0.78	1
Acrylonitrile	ND		ug/kg	4.8	1.4	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-03  
**Client ID:** AT5596CE03  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
1,4-Dioxane	ND		ug/kg	96	42.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.21	1
p-Ethyltoluene	ND		ug/kg	2.4	0.46	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.41	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	97		70-130



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-04  
 Client ID: AT5596CE04  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 10:48  
 Analyst: AD  
 Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.8	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.14	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.58	0.23	1
Chlorobenzene	ND		ug/kg	0.58	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.6	0.81	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	0.19	1
Bromodichloromethane	ND		ug/kg	0.58	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.58	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.58	0.18	1
Bromoform	ND		ug/kg	4.6	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	0.19	1
Benzene	ND		ug/kg	0.58	0.19	1
Toluene	ND		ug/kg	1.2	0.63	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.6	1.1	1
Bromomethane	ND		ug/kg	2.3	0.68	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-04  
**Client ID:** AT5596CE04  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.58	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.65	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.5	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.32	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.58	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.19	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.3	0.14	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.6	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.6	0.76	1
Acrylonitrile	ND		ug/kg	4.6	1.3	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-04  
 Client ID: AT5596CE04  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.39	1
1,4-Dioxane	ND		ug/kg	93	41.	1
p-Diethylbenzene	ND		ug/kg	2.3	0.21	1
p-Ethyltoluene	ND		ug/kg	2.3	0.45	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.3	0.22	1
Ethyl ether	ND		ug/kg	2.3	0.40	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	138	Q	70-130
Dibromofluoromethane	97		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-05  
 Client ID: AT5596CE05  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 20:08  
 Analyst: NLK  
 Percent Solids: 73%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.6	3.0	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.19	1
Chloroform	ND		ug/kg	2.0	0.18	1
Carbon tetrachloride	ND		ug/kg	1.3	0.30	1
1,2-Dichloropropane	ND		ug/kg	1.3	0.16	1
Dibromochloromethane	ND		ug/kg	1.3	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.3	0.35	1
Tetrachloroethene	ND		ug/kg	0.66	0.26	1
Chlorobenzene	ND		ug/kg	0.66	0.17	1
Trichlorofluoromethane	ND		ug/kg	5.3	0.92	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.34	1
1,1,1-Trichloroethane	ND		ug/kg	0.66	0.22	1
Bromodichloromethane	ND		ug/kg	0.66	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.36	1
cis-1,3-Dichloropropene	ND		ug/kg	0.66	0.21	1
1,3-Dichloropropene, Total	ND		ug/kg	0.66	0.21	1
1,1-Dichloropropene	ND		ug/kg	0.66	0.21	1
Bromoform	ND		ug/kg	5.3	0.32	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.66	0.22	1
Benzene	ND		ug/kg	0.66	0.22	1
Toluene	ND		ug/kg	1.3	0.72	1
Ethylbenzene	ND		ug/kg	1.3	0.18	1
Chloromethane	ND		ug/kg	5.3	1.2	1
Bromomethane	ND		ug/kg	2.6	0.76	1
Vinyl chloride	ND		ug/kg	1.3	0.44	1
Chloroethane	ND		ug/kg	2.6	0.60	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.31	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.18	1

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-05  
 Client ID: AT5596CE05  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.66	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	2.6	0.19	1
1,3-Dichlorobenzene	ND		ug/kg	2.6	0.20	1
1,4-Dichlorobenzene	ND		ug/kg	2.6	0.22	1
Methyl tert butyl ether	ND		ug/kg	2.6	0.26	1
p/m-Xylene	ND		ug/kg	2.6	0.74	1
o-Xylene	ND		ug/kg	1.3	0.38	1
Xylenes, Total	ND		ug/kg	1.3	0.38	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.23	1
1,2-Dichloroethene, Total	ND		ug/kg	1.3	0.18	1
Dibromomethane	ND		ug/kg	2.6	0.31	1
Styrene	ND		ug/kg	1.3	0.26	1
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Acetone	ND		ug/kg	13	6.3	1
Carbon disulfide	ND		ug/kg	13	6.0	1
2-Butanone	ND		ug/kg	13	2.9	1
Vinyl acetate	ND		ug/kg	13	2.8	1
4-Methyl-2-pentanone	ND		ug/kg	13	1.7	1
1,2,3-Trichloropropane	ND		ug/kg	2.6	0.17	1
2-Hexanone	ND		ug/kg	13	1.6	1
Bromochloromethane	ND		ug/kg	2.6	0.27	1
2,2-Dichloropropane	ND		ug/kg	2.6	0.27	1
1,2-Dibromoethane	ND		ug/kg	1.3	0.37	1
1,3-Dichloropropane	ND		ug/kg	2.6	0.22	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.66	0.17	1
Bromobenzene	ND		ug/kg	2.6	0.19	1
n-Butylbenzene	ND		ug/kg	1.3	0.22	1
sec-Butylbenzene	ND		ug/kg	1.3	0.19	1
tert-Butylbenzene	ND		ug/kg	2.6	0.16	1
o-Chlorotoluene	ND		ug/kg	2.6	0.25	1
p-Chlorotoluene	ND		ug/kg	2.6	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	1.3	1
Hexachlorobutadiene	ND		ug/kg	5.3	0.22	1
Isopropylbenzene	ND		ug/kg	1.3	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.14	1
Naphthalene	ND		ug/kg	5.3	0.86	1
Acrylonitrile	ND		ug/kg	5.3	1.5	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-05  
 Client ID: AT5596CE05  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.3	0.22	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.6	0.42	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.6	0.36	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.6	0.25	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.6	0.44	1
1,4-Dioxane	ND		ug/kg	100	46.	1
p-Diethylbenzene	ND		ug/kg	2.6	0.23	1
p-Ethyltoluene	ND		ug/kg	2.6	0.51	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.6	0.25	1
Ethyl ether	ND		ug/kg	2.6	0.45	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.6	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	106		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-06  
 Client ID: AT5596CE06  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/25/20 15:12  
 Analyst: MKS  
 Percent Solids: 62%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	8.0	3.7	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.23	1
Chloroform	ND		ug/kg	2.4	0.22	1
Carbon tetrachloride	ND		ug/kg	1.6	0.37	1
1,2-Dichloropropane	ND		ug/kg	1.6	0.20	1
Dibromochloromethane	ND		ug/kg	1.6	0.22	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.43	1
Tetrachloroethene	ND		ug/kg	0.80	0.31	1
Chlorobenzene	ND		ug/kg	0.80	0.20	1
Trichlorofluoromethane	ND		ug/kg	6.4	1.1	1
1,2-Dichloroethane	ND		ug/kg	1.6	0.41	1
1,1,1-Trichloroethane	ND		ug/kg	0.80	0.27	1
Bromodichloromethane	ND		ug/kg	0.80	0.17	1
trans-1,3-Dichloropropene	ND		ug/kg	1.6	0.44	1
cis-1,3-Dichloropropene	ND		ug/kg	0.80	0.25	1
1,3-Dichloropropene, Total	ND		ug/kg	0.80	0.25	1
1,1-Dichloropropene	ND		ug/kg	0.80	0.25	1
Bromoform	ND		ug/kg	6.4	0.39	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.80	0.26	1
Benzene	ND		ug/kg	0.80	0.26	1
Toluene	ND		ug/kg	1.6	0.87	1
Ethylbenzene	ND		ug/kg	1.6	0.22	1
Chloromethane	ND		ug/kg	6.4	1.5	1
Bromomethane	ND		ug/kg	3.2	0.93	1
Vinyl chloride	ND		ug/kg	1.6	0.54	1
Chloroethane	ND		ug/kg	3.2	0.72	1
1,1-Dichloroethene	ND		ug/kg	1.6	0.38	1
trans-1,2-Dichloroethene	ND		ug/kg	2.4	0.22	1

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-06  
 Client ID: AT5596CE06  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.80	0.22	1
1,2-Dichlorobenzene	ND		ug/kg	3.2	0.23	1
1,3-Dichlorobenzene	ND		ug/kg	3.2	0.24	1
1,4-Dichlorobenzene	ND		ug/kg	3.2	0.27	1
Methyl tert butyl ether	ND		ug/kg	3.2	0.32	1
p/m-Xylene	ND		ug/kg	3.2	0.90	1
o-Xylene	ND		ug/kg	1.6	0.46	1
Xylenes, Total	ND		ug/kg	1.6	0.46	1
cis-1,2-Dichloroethene	ND		ug/kg	1.6	0.28	1
1,2-Dichloroethene, Total	ND		ug/kg	1.6	0.22	1
Dibromomethane	ND		ug/kg	3.2	0.38	1
Styrene	ND		ug/kg	1.6	0.31	1
Dichlorodifluoromethane	ND		ug/kg	16	1.5	1
Acetone	210		ug/kg	16	7.7	1
Carbon disulfide	ND		ug/kg	16	7.3	1
2-Butanone	38		ug/kg	16	3.5	1
Vinyl acetate	ND		ug/kg	16	3.4	1
4-Methyl-2-pentanone	ND		ug/kg	16	2.0	1
1,2,3-Trichloropropane	ND		ug/kg	3.2	0.20	1
2-Hexanone	ND		ug/kg	16	1.9	1
Bromochloromethane	ND		ug/kg	3.2	0.33	1
2,2-Dichloropropane	ND		ug/kg	3.2	0.32	1
1,2-Dibromoethane	ND		ug/kg	1.6	0.45	1
1,3-Dichloropropane	ND		ug/kg	3.2	0.27	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.80	0.21	1
Bromobenzene	ND		ug/kg	3.2	0.23	1
n-Butylbenzene	ND		ug/kg	1.6	0.27	1
sec-Butylbenzene	ND		ug/kg	1.6	0.23	1
tert-Butylbenzene	ND		ug/kg	3.2	0.19	1
o-Chlorotoluene	ND		ug/kg	3.2	0.30	1
p-Chlorotoluene	ND		ug/kg	3.2	0.17	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.8	1.6	1
Hexachlorobutadiene	ND		ug/kg	6.4	0.27	1
Isopropylbenzene	ND		ug/kg	1.6	0.17	1
p-Isopropyltoluene	ND		ug/kg	1.6	0.17	1
Naphthalene	ND		ug/kg	6.4	1.0	1
Acrylonitrile	ND		ug/kg	6.4	1.8	1



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-06  
 Client ID: AT5596CE06  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.6	0.27	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.2	0.51	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.2	0.43	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.2	0.31	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.2	0.53	1
1,4-Dioxane	ND		ug/kg	130	56.	1
p-Diethylbenzene	ND		ug/kg	3.2	0.28	1
p-Ethyltoluene	ND		ug/kg	3.2	0.61	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.2	0.30	1
Ethyl ether	ND		ug/kg	3.2	0.54	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.0	2.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	106		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-07  
 Client ID: AT5596CE07  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 21:00  
 Analyst: NLK  
 Percent Solids: 77%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.9	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.59	0.23	1
Chlorobenzene	ND		ug/kg	0.59	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.8	0.83	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.59	0.20	1
Bromodichloromethane	ND		ug/kg	0.59	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.59	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.59	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.59	0.19	1
Bromoform	ND		ug/kg	4.8	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.59	0.20	1
Benzene	0.20	J	ug/kg	0.59	0.20	1
Toluene	ND		ug/kg	1.2	0.64	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.8	1.1	1
Bromomethane	ND		ug/kg	2.4	0.69	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.54	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-07  
 Client ID: AT5596CE07  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.59	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.66	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.7	1
Carbon disulfide	ND		ug/kg	12	5.4	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.59	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.8	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.8	0.77	1
Acrylonitrile	ND		ug/kg	4.8	1.4	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-07  
 Client ID: AT5596CE07  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
1,4-Dioxane	ND		ug/kg	95	42.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.21	1
p-Ethyltoluene	ND		ug/kg	2.4	0.46	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.40	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.9	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	100		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-08  
 Client ID: AT5596CE08  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 12:28  
 Analyst: AD  
 Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.0	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.28	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.60	0.23	1
Chlorobenzene	ND		ug/kg	0.60	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.8	0.83	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	0.60	0.20	1
Bromodichloromethane	ND		ug/kg	0.60	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.33	1
cis-1,3-Dichloropropene	ND		ug/kg	0.60	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.60	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.60	0.19	1
Bromoform	ND		ug/kg	4.8	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.60	0.20	1
Benzene	ND		ug/kg	0.60	0.20	1
Toluene	ND		ug/kg	1.2	0.65	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.8	1.1	1
Bromomethane	ND		ug/kg	2.4	0.70	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.54	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-08  
 Client ID: AT5596CE08  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.60	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.67	1
o-Xylene	ND		ug/kg	1.2	0.35	1
Xylenes, Total	ND		ug/kg	1.2	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.8	1
Carbon disulfide	ND		ug/kg	12	5.4	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.60	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.8	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.8	0.78	1
Acrylonitrile	ND		ug/kg	4.8	1.4	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-08  
**Client ID:** AT5596CE08  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
1,4-Dioxane	ND		ug/kg	96	42.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.21	1
p-Ethyltoluene	ND		ug/kg	2.4	0.46	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.41	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	98		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-09  
 Client ID: AT5596CE09  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 12:53  
 Analyst: AD  
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.1	2.8	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.18	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.28	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.61	0.24	1
Chlorobenzene	ND		ug/kg	0.61	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.9	0.84	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	0.61	0.20	1
Bromodichloromethane	ND		ug/kg	0.61	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.33	1
cis-1,3-Dichloropropene	ND		ug/kg	0.61	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.61	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.61	0.19	1
Bromoform	ND		ug/kg	4.9	0.30	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.61	0.20	1
Benzene	ND		ug/kg	0.61	0.20	1
Toluene	ND		ug/kg	1.2	0.66	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.9	1.1	1
Bromomethane	ND		ug/kg	2.4	0.71	1
Vinyl chloride	ND		ug/kg	1.2	0.41	1
Chloroethane	ND		ug/kg	2.4	0.55	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.17	1



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-09  
 Client ID: AT5596CE09  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.61	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.21	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.68	1
o-Xylene	ND		ug/kg	1.2	0.35	1
Xylenes, Total	ND		ug/kg	1.2	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	2.4	0.29	1
Styrene	ND		ug/kg	1.2	0.24	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.8	1
Carbon disulfide	ND		ug/kg	12	5.5	1
2-Butanone	ND		ug/kg	12	2.7	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.25	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.34	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.61	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.18	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.9	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.9	0.79	1
Acrylonitrile	ND		ug/kg	4.9	1.4	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-09  
**Client ID:** AT5596CE09  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.39	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.33	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
1,4-Dioxane	ND		ug/kg	97	43.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.22	1
p-Ethyltoluene	ND		ug/kg	2.4	0.47	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.41	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.1	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	98		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-10  
 Client ID: AT5596CE10  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 21:26  
 Analyst: NLK  
 Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.5	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	ND		ug/kg	0.55	0.21	1
Chlorobenzene	ND		ug/kg	0.55	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.4	0.76	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.55	0.18	1
Bromodichloromethane	ND		ug/kg	0.55	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.55	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.55	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.55	0.17	1
Bromoform	ND		ug/kg	4.4	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.55	0.18	1
Benzene	ND		ug/kg	0.55	0.18	1
Toluene	ND		ug/kg	1.1	0.59	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.4	1.0	1
Bromomethane	ND		ug/kg	2.2	0.64	1
Vinyl chloride	ND		ug/kg	1.1	0.37	1
Chloroethane	ND		ug/kg	2.2	0.49	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-10  
 Client ID: AT5596CE10  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.55	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.61	1
o-Xylene	ND		ug/kg	1.1	0.32	1
Xylenes, Total	ND		ug/kg	1.1	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.2	0.26	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.3	1
Carbon disulfide	ND		ug/kg	11	5.0	1
2-Butanone	ND		ug/kg	11	2.4	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.55	0.14	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.4	0.18	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.4	0.71	1
Acrylonitrile	ND		ug/kg	4.4	1.2	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-10  
 Client ID: AT5596CE10  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.36	1
1,4-Dioxane	ND		ug/kg	88	38.	1
p-Diethylbenzene	ND		ug/kg	2.2	0.19	1
p-Ethyltoluene	ND		ug/kg	2.2	0.42	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.21	1
Ethyl ether	ND		ug/kg	2.2	0.37	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.5	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	101		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-11  
 Client ID: AT5596CE11  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 13:43  
 Analyst: AD  
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.5	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.55	0.22	1
Chlorobenzene	ND		ug/kg	0.55	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.4	0.77	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.55	0.18	1
Bromodichloromethane	ND		ug/kg	0.55	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.55	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.55	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.55	0.18	1
Bromoform	ND		ug/kg	4.4	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.55	0.18	1
Benzene	ND		ug/kg	0.55	0.18	1
Toluene	ND		ug/kg	1.1	0.60	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.4	1.0	1
Bromomethane	ND		ug/kg	2.2	0.64	1
Vinyl chloride	ND		ug/kg	1.1	0.37	1
Chloroethane	ND		ug/kg	2.2	0.50	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.15	1

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-11  
 Client ID: AT5596CE11  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.55	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.62	1
o-Xylene	ND		ug/kg	1.1	0.32	1
Xylenes, Total	ND		ug/kg	1.1	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.2	0.26	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.3	1
Carbon disulfide	ND		ug/kg	11	5.0	1
2-Butanone	ND		ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.31	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.55	0.15	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.4	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.4	0.72	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-11  
**Client ID:** AT5596CE11  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.36	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.37	1
1,4-Dioxane	ND		ug/kg	89	39.	1
p-Diethylbenzene	ND		ug/kg	2.2	0.20	1
p-Ethyltoluene	ND		ug/kg	2.2	0.42	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.21	1
Ethyl ether	ND		ug/kg	2.2	0.38	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.5	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	101		70-130



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-12  
 Client ID: AT5596CE12  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 14:08  
 Analyst: AD  
 Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.3	2.9	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.18	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.2	0.29	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.16	1
Dibromochloromethane	ND		ug/kg	1.2	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.34	1
Tetrachloroethene	ND		ug/kg	0.63	0.25	1
Chlorobenzene	ND		ug/kg	0.63	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.0	0.88	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	0.63	0.21	1
Bromodichloromethane	ND		ug/kg	0.63	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.34	1
cis-1,3-Dichloropropene	ND		ug/kg	0.63	0.20	1
1,3-Dichloropropene, Total	ND		ug/kg	0.63	0.20	1
1,1-Dichloropropene	ND		ug/kg	0.63	0.20	1
Bromoform	ND		ug/kg	5.0	0.31	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.63	0.21	1
Benzene	ND		ug/kg	0.63	0.21	1
Toluene	ND		ug/kg	1.2	0.68	1
Ethylbenzene	ND		ug/kg	1.2	0.18	1
Chloromethane	ND		ug/kg	5.0	1.2	1
Bromomethane	ND		ug/kg	2.5	0.73	1
Vinyl chloride	ND		ug/kg	1.2	0.42	1
Chloroethane	ND		ug/kg	2.5	0.57	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.17	1

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-12  
 Client ID: AT5596CE12  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.63	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	0.22	1
Methyl tert butyl ether	ND		ug/kg	2.5	0.25	1
p/m-Xylene	ND		ug/kg	2.5	0.70	1
o-Xylene	ND		ug/kg	1.2	0.37	1
Xylenes, Total	ND		ug/kg	1.2	0.37	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.22	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	2.5	0.30	1
Styrene	ND		ug/kg	1.2	0.25	1
Dichlorodifluoromethane	ND		ug/kg	12	1.2	1
Acetone	41		ug/kg	12	6.1	1
Carbon disulfide	ND		ug/kg	12	5.7	1
2-Butanone	7.8	J	ug/kg	12	2.8	1
Vinyl acetate	ND		ug/kg	12	2.7	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.5	0.16	1
2-Hexanone	ND		ug/kg	12	1.5	1
Bromochloromethane	ND		ug/kg	2.5	0.26	1
2,2-Dichloropropane	ND		ug/kg	2.5	0.25	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.35	1
1,3-Dichloropropane	ND		ug/kg	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.63	0.17	1
Bromobenzene	ND		ug/kg	2.5	0.18	1
n-Butylbenzene	ND		ug/kg	1.2	0.21	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
tert-Butylbenzene	ND		ug/kg	2.5	0.15	1
o-Chlorotoluene	ND		ug/kg	2.5	0.24	1
p-Chlorotoluene	ND		ug/kg	2.5	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	1.2	1
Hexachlorobutadiene	ND		ug/kg	5.0	0.21	1
Isopropylbenzene	ND		ug/kg	1.2	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.14	1
Naphthalene	ND		ug/kg	5.0	0.82	1
Acrylonitrile	ND		ug/kg	5.0	1.4	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-12  
 Client ID: AT5596CE12  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.22	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	0.40	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.5	0.34	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.5	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.5	0.42	1
1,4-Dioxane	ND		ug/kg	100	44.	1
p-Diethylbenzene	ND		ug/kg	2.5	0.22	1
p-Ethyltoluene	ND		ug/kg	2.5	0.48	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.5	0.24	1
Ethyl ether	ND		ug/kg	2.5	0.43	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.3	1.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	98		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-13  
 Client ID: AT5596CE13  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 14:33  
 Analyst: AD  
 Percent Solids: 76%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.3	2.9	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.18	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.3	0.29	1
1,2-Dichloropropane	ND		ug/kg	1.3	0.16	1
Dibromochloromethane	ND		ug/kg	1.3	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.3	0.34	1
Tetrachloroethene	ND		ug/kg	0.63	0.25	1
Chlorobenzene	ND		ug/kg	0.63	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.1	0.88	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	0.63	0.21	1
Bromodichloromethane	ND		ug/kg	0.63	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.34	1
cis-1,3-Dichloropropene	ND		ug/kg	0.63	0.20	1
1,3-Dichloropropene, Total	ND		ug/kg	0.63	0.20	1
1,1-Dichloropropene	ND		ug/kg	0.63	0.20	1
Bromoform	ND		ug/kg	5.1	0.31	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.63	0.21	1
Benzene	ND		ug/kg	0.63	0.21	1
Toluene	ND		ug/kg	1.3	0.69	1
Ethylbenzene	ND		ug/kg	1.3	0.18	1
Chloromethane	ND		ug/kg	5.1	1.2	1
Bromomethane	ND		ug/kg	2.5	0.74	1
Vinyl chloride	ND		ug/kg	1.3	0.42	1
Chloroethane	ND		ug/kg	2.5	0.57	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.17	1

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-13  
 Client ID: AT5596CE13  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.63	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	0.22	1
Methyl tert butyl ether	ND		ug/kg	2.5	0.25	1
p/m-Xylene	ND		ug/kg	2.5	0.71	1
o-Xylene	ND		ug/kg	1.3	0.37	1
Xylenes, Total	ND		ug/kg	1.3	0.37	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.22	1
1,2-Dichloroethene, Total	ND		ug/kg	1.3	0.17	1
Dibromomethane	ND		ug/kg	2.5	0.30	1
Styrene	ND		ug/kg	1.3	0.25	1
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Acetone	ND		ug/kg	13	6.1	1
Carbon disulfide	ND		ug/kg	13	5.8	1
2-Butanone	ND		ug/kg	13	2.8	1
Vinyl acetate	ND		ug/kg	13	2.7	1
4-Methyl-2-pentanone	ND		ug/kg	13	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.5	0.16	1
2-Hexanone	ND		ug/kg	13	1.5	1
Bromochloromethane	ND		ug/kg	2.5	0.26	1
2,2-Dichloropropane	ND		ug/kg	2.5	0.26	1
1,2-Dibromoethane	ND		ug/kg	1.3	0.35	1
1,3-Dichloropropane	ND		ug/kg	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.63	0.17	1
Bromobenzene	ND		ug/kg	2.5	0.18	1
n-Butylbenzene	ND		ug/kg	1.3	0.21	1
sec-Butylbenzene	ND		ug/kg	1.3	0.18	1
tert-Butylbenzene	ND		ug/kg	2.5	0.15	1
o-Chlorotoluene	ND		ug/kg	2.5	0.24	1
p-Chlorotoluene	ND		ug/kg	2.5	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	1.3	1
Hexachlorobutadiene	ND		ug/kg	5.1	0.21	1
Isopropylbenzene	ND		ug/kg	1.3	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.14	1
Naphthalene	ND		ug/kg	5.1	0.82	1
Acrylonitrile	ND		ug/kg	5.1	1.4	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-13  
 Client ID: AT5596CE13  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.3	0.22	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	0.41	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.5	0.34	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.5	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.5	0.42	1
1,4-Dioxane	ND		ug/kg	100	44.	1
p-Diethylbenzene	ND		ug/kg	2.5	0.22	1
p-Ethyltoluene	ND		ug/kg	2.5	0.48	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.5	0.24	1
Ethyl ether	ND		ug/kg	2.5	0.43	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.3	1.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	99		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-14  
 Client ID: AT5596CE14  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 21:51  
 Analyst: NLK  
 Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.7	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.57	0.22	1
Chlorobenzene	ND		ug/kg	0.57	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.6	0.80	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	0.57	0.19	1
Bromodichloromethane	ND		ug/kg	0.57	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.31	1
cis-1,3-Dichloropropene	ND		ug/kg	0.57	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.57	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.57	0.18	1
Bromoform	ND		ug/kg	4.6	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.57	0.19	1
Benzene	ND		ug/kg	0.57	0.19	1
Toluene	ND		ug/kg	1.1	0.62	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.6	1.1	1
Bromomethane	ND		ug/kg	2.3	0.66	1
Vinyl chloride	ND		ug/kg	1.1	0.38	1
Chloroethane	ND		ug/kg	2.3	0.52	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-14  
**Client ID:** AT5596CE14  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.57	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.64	1
o-Xylene	ND		ug/kg	1.1	0.33	1
Xylenes, Total	ND		ug/kg	1.1	0.33	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.27	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.5	1
Carbon disulfide	ND		ug/kg	11	5.2	1
2-Butanone	ND		ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.5	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.14	1
2-Hexanone	ND		ug/kg	11	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.32	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.57	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.19	1
sec-Butylbenzene	ND		ug/kg	1.1	0.17	1
tert-Butylbenzene	ND		ug/kg	2.3	0.14	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.4	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.6	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.6	0.74	1
Acrylonitrile	ND		ug/kg	4.6	1.3	1



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-14  
 Client ID: AT5596CE14  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.1	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.37	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.31	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.38	1
1,4-Dioxane	ND		ug/kg	92	40.	1
p-Diethylbenzene	ND		ug/kg	2.3	0.20	1
p-Ethyltoluene	ND		ug/kg	2.3	0.44	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.3	0.22	1
Ethyl ether	ND		ug/kg	2.3	0.39	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.7	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	102		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-15  
 Client ID: AT5596CE15  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 22:17  
 Analyst: NLK  
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.4	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.13	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	ND		ug/kg	0.54	0.21	1
Chlorobenzene	ND		ug/kg	0.54	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.3	0.74	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.54	0.18	1
Bromodichloromethane	ND		ug/kg	0.54	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.54	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.54	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.54	0.17	1
Bromoform	ND		ug/kg	4.3	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.54	0.18	1
Benzene	ND		ug/kg	0.54	0.18	1
Toluene	ND		ug/kg	1.1	0.58	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.3	1.0	1
Bromomethane	ND		ug/kg	2.1	0.62	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-15  
**Client ID:** AT5596CE15  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.54	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.22	1
p/m-Xylene	ND		ug/kg	2.1	0.60	1
o-Xylene	ND		ug/kg	1.1	0.31	1
Xylenes, Total	ND		ug/kg	1.1	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.1	0.26	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	0.98	1
Acetone	ND		ug/kg	11	5.2	1
Carbon disulfide	ND		ug/kg	11	4.9	1
2-Butanone	ND		ug/kg	11	2.4	1
Vinyl acetate	ND		ug/kg	11	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.54	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.1	0.13	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.3	0.18	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.3	0.70	1
Acrylonitrile	ND		ug/kg	4.3	1.2	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-15  
**Client ID:** AT5596CE15  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.1	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.36	1
1,4-Dioxane	ND		ug/kg	86	38.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.19	1
p-Ethyltoluene	ND		ug/kg	2.1	0.41	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.36	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.4	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-16  
 Client ID: AT5596CE16  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 13:54  
 Analyst: MKS  
 Percent Solids: 79%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.9	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.59	0.23	1
Chlorobenzene	ND		ug/kg	0.59	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.7	0.82	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.59	0.20	1
Bromodichloromethane	ND		ug/kg	0.59	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.59	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.59	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.59	0.19	1
Bromoform	ND		ug/kg	4.7	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.59	0.20	1
Benzene	0.44	J	ug/kg	0.59	0.20	1
Toluene	ND		ug/kg	1.2	0.64	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.7	1.1	1
Bromomethane	ND		ug/kg	2.4	0.69	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.54	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039252**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039252-16  
 Client ID: AT5596CE16  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.59	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.66	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.7	1
Carbon disulfide	ND		ug/kg	12	5.4	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.59	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.7	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.7	0.77	1
Acrylonitrile	ND		ug/kg	4.7	1.4	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-16  
 Client ID: AT5596CE16  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
1,4-Dioxane	ND		ug/kg	95	42.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.21	1
p-Ethyltoluene	ND		ug/kg	2.4	0.46	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.40	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.9	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	104		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-17  
 Client ID: AT5596CE17  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 14:22  
 Analyst: MKS  
 Percent Solids: 73%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.3	2.9	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.18	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.3	0.29	1
1,2-Dichloropropane	ND		ug/kg	1.3	0.16	1
Dibromochloromethane	ND		ug/kg	1.3	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.3	0.34	1
Tetrachloroethene	0.25	J	ug/kg	0.63	0.25	1
Chlorobenzene	ND		ug/kg	0.63	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.0	0.88	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	0.63	0.21	1
Bromodichloromethane	ND		ug/kg	0.63	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.34	1
cis-1,3-Dichloropropene	ND		ug/kg	0.63	0.20	1
1,3-Dichloropropene, Total	ND		ug/kg	0.63	0.20	1
1,1-Dichloropropene	ND		ug/kg	0.63	0.20	1
Bromoform	ND		ug/kg	5.0	0.31	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.63	0.21	1
Benzene	ND		ug/kg	0.63	0.21	1
Toluene	ND		ug/kg	1.3	0.68	1
Ethylbenzene	ND		ug/kg	1.3	0.18	1
Chloromethane	ND		ug/kg	5.0	1.2	1
Bromomethane	ND		ug/kg	2.5	0.73	1
Vinyl chloride	ND		ug/kg	1.3	0.42	1
Chloroethane	ND		ug/kg	2.5	0.57	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.17	1



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-17  
**Client ID:** AT5596CE17  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.63	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	0.22	1
Methyl tert butyl ether	ND		ug/kg	2.5	0.25	1
p/m-Xylene	ND		ug/kg	2.5	0.70	1
o-Xylene	ND		ug/kg	1.3	0.37	1
Xylenes, Total	ND		ug/kg	1.3	0.37	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.22	1
1,2-Dichloroethene, Total	ND		ug/kg	1.3	0.17	1
Dibromomethane	ND		ug/kg	2.5	0.30	1
Styrene	ND		ug/kg	1.3	0.25	1
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Acetone	ND		ug/kg	13	6.1	1
Carbon disulfide	ND		ug/kg	13	5.7	1
2-Butanone	ND		ug/kg	13	2.8	1
Vinyl acetate	ND		ug/kg	13	2.7	1
4-Methyl-2-pentanone	ND		ug/kg	13	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.5	0.16	1
2-Hexanone	ND		ug/kg	13	1.5	1
Bromochloromethane	ND		ug/kg	2.5	0.26	1
2,2-Dichloropropane	ND		ug/kg	2.5	0.25	1
1,2-Dibromoethane	ND		ug/kg	1.3	0.35	1
1,3-Dichloropropane	ND		ug/kg	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.63	0.17	1
Bromobenzene	ND		ug/kg	2.5	0.18	1
n-Butylbenzene	ND		ug/kg	1.3	0.21	1
sec-Butylbenzene	ND		ug/kg	1.3	0.18	1
tert-Butylbenzene	ND		ug/kg	2.5	0.15	1
o-Chlorotoluene	ND		ug/kg	2.5	0.24	1
p-Chlorotoluene	ND		ug/kg	2.5	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	1.2	1
Hexachlorobutadiene	ND		ug/kg	5.0	0.21	1
Isopropylbenzene	ND		ug/kg	1.3	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.14	1
Naphthalene	ND		ug/kg	5.0	0.82	1
Acrylonitrile	ND		ug/kg	5.0	1.4	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-17  
**Client ID:** AT5596CE17  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.3	0.22	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	0.40	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.5	0.34	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.5	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.5	0.42	1
1,4-Dioxane	ND		ug/kg	100	44.	1
p-Diethylbenzene	ND		ug/kg	2.5	0.22	1
p-Ethyltoluene	ND		ug/kg	2.5	0.48	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.5	0.24	1
Ethyl ether	ND		ug/kg	2.5	0.43	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.3	1.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	128		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	127		70-130
Dibromofluoromethane	110		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-17 R  
 Client ID: AT5596CE17  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/25/20 08:34  
 Analyst: MV  
 Percent Solids: 73%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	3.3	J	ug/kg	6.4	2.9	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.19	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.3	0.30	1
1,2-Dichloropropane	ND		ug/kg	1.3	0.16	1
Dibromochloromethane	ND		ug/kg	1.3	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.3	0.34	1
Tetrachloroethene	3.8		ug/kg	0.64	0.25	1
Chlorobenzene	ND		ug/kg	0.64	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.1	0.89	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.33	1
1,1,1-Trichloroethane	ND		ug/kg	0.64	0.21	1
Bromodichloromethane	ND		ug/kg	0.64	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.35	1
cis-1,3-Dichloropropene	ND		ug/kg	0.64	0.20	1
1,3-Dichloropropene, Total	ND		ug/kg	0.64	0.20	1
1,1-Dichloropropene	ND		ug/kg	0.64	0.20	1
Bromoform	ND		ug/kg	5.1	0.32	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.64	0.21	1
Benzene	ND		ug/kg	0.64	0.21	1
Toluene	2.9		ug/kg	1.3	0.70	1
Ethylbenzene	ND		ug/kg	1.3	0.18	1
Chloromethane	ND		ug/kg	5.1	1.2	1
Bromomethane	ND		ug/kg	2.6	0.74	1
Vinyl chloride	ND		ug/kg	1.3	0.43	1
Chloroethane	ND		ug/kg	2.6	0.58	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.18	1

**Project Name:** BEACON ISLAND**Lab Number:** L2039252**Project Number:** AT5596**Report Date:** 09/25/20**SAMPLE RESULTS**

Lab ID: L2039252-17 R

Date Collected: 09/16/20 10:00

Client ID: AT5596CE17

Date Received: 09/18/20

Sample Location: GLENMONT, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.64	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	2.6	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	2.6	0.19	1
1,4-Dichlorobenzene	ND		ug/kg	2.6	0.22	1
Methyl tert butyl ether	ND		ug/kg	2.6	0.26	1
p/m-Xylene	ND		ug/kg	2.6	0.72	1
o-Xylene	ND		ug/kg	1.3	0.37	1
Xylenes, Total	ND		ug/kg	1.3	0.37	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.22	1
1,2-Dichloroethene, Total	ND		ug/kg	1.3	0.18	1
Dibromomethane	ND		ug/kg	2.6	0.30	1
Styrene	ND		ug/kg	1.3	0.25	1
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Acetone	ND		ug/kg	13	6.2	1
Carbon disulfide	ND		ug/kg	13	5.8	1
2-Butanone	ND		ug/kg	13	2.8	1
Vinyl acetate	ND		ug/kg	13	2.8	1
4-Methyl-2-pentanone	ND		ug/kg	13	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.6	0.16	1
2-Hexanone	ND		ug/kg	13	1.5	1
Bromochloromethane	ND		ug/kg	2.6	0.26	1
2,2-Dichloropropane	ND		ug/kg	2.6	0.26	1
1,2-Dibromoethane	ND		ug/kg	1.3	0.36	1
1,3-Dichloropropane	ND		ug/kg	2.6	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.64	0.17	1
Bromobenzene	ND		ug/kg	2.6	0.19	1
n-Butylbenzene	ND		ug/kg	1.3	0.21	1
sec-Butylbenzene	ND		ug/kg	1.3	0.19	1
tert-Butylbenzene	ND		ug/kg	2.6	0.15	1
o-Chlorotoluene	ND		ug/kg	2.6	0.24	1
p-Chlorotoluene	ND		ug/kg	2.6	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	1.3	1
Hexachlorobutadiene	ND		ug/kg	5.1	0.22	1
Isopropylbenzene	ND		ug/kg	1.3	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.14	1
Naphthalene	2.1	J	ug/kg	5.1	0.83	1
Acrylonitrile	ND		ug/kg	5.1	1.5	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-17 R  
 Client ID: AT5596CE17  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.3	0.22	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.6	0.41	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.6	0.35	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.6	0.25	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.6	0.43	1
1,4-Dioxane	ND		ug/kg	100	45.	1
p-Diethylbenzene	ND		ug/kg	2.6	0.23	1
p-Ethyltoluene	ND		ug/kg	2.6	0.49	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.6	0.24	1
Ethyl ether	ND		ug/kg	2.6	0.44	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.4	1.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	143	Q	70-130
Toluene-d8	199	Q	70-130
4-Bromofluorobenzene	208	Q	70-130
Dibromofluoromethane	155	Q	70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-18  
 Client ID: AT5596CE18  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 14:49  
 Analyst: MKS  
 Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.7	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.57	0.22	1
Chlorobenzene	ND		ug/kg	0.57	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.6	0.79	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	0.57	0.19	1
Bromodichloromethane	ND		ug/kg	0.57	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.31	1
cis-1,3-Dichloropropene	ND		ug/kg	0.57	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.57	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.57	0.18	1
Bromoform	ND		ug/kg	4.6	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.57	0.19	1
Benzene	ND		ug/kg	0.57	0.19	1
Toluene	ND		ug/kg	1.1	0.62	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.6	1.1	1
Bromomethane	ND		ug/kg	2.3	0.66	1
Vinyl chloride	ND		ug/kg	1.1	0.38	1
Chloroethane	ND		ug/kg	2.3	0.52	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-18  
**Client ID:** AT5596CE18  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.57	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.64	1
o-Xylene	ND		ug/kg	1.1	0.33	1
Xylenes, Total	ND		ug/kg	1.1	0.33	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.27	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	20		ug/kg	11	5.5	1
Carbon disulfide	ND		ug/kg	11	5.2	1
2-Butanone	3.4	J	ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.3	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.32	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.57	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.19	1
sec-Butylbenzene	0.22	J	ug/kg	1.1	0.17	1
tert-Butylbenzene	ND		ug/kg	2.3	0.13	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.4	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.6	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.6	0.74	1
Acrylonitrile	ND		ug/kg	4.6	1.3	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-18  
 Client ID: AT5596CE18  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.1	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.37	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.31	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.38	1
1,4-Dioxane	ND		ug/kg	91	40.	1
p-Diethylbenzene	0.24	J	ug/kg	2.3	0.20	1
p-Ethyltoluene	ND		ug/kg	2.3	0.44	1
1,2,4,5-Tetramethylbenzene	1.3	J	ug/kg	2.3	0.22	1
Ethyl ether	ND		ug/kg	2.3	0.39	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.7	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	105		70-130



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-19  
 Client ID: AT5596CE19  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 15:16  
 Analyst: MKS  
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.0	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.60	0.23	1
Chlorobenzene	ND		ug/kg	0.60	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.8	0.83	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	0.60	0.20	1
Bromodichloromethane	ND		ug/kg	0.60	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.60	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.60	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.60	0.19	1
Bromoform	ND		ug/kg	4.8	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.60	0.20	1
Benzene	ND		ug/kg	0.60	0.20	1
Toluene	ND		ug/kg	1.2	0.65	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.8	1.1	1
Bromomethane	ND		ug/kg	2.4	0.69	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.54	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-19  
 Client ID: AT5596CE19  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.60	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.67	1
o-Xylene	ND		ug/kg	1.2	0.35	1
Xylenes, Total	ND		ug/kg	1.2	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.7	1
Carbon disulfide	ND		ug/kg	12	5.4	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.60	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.8	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.8	0.77	1
Acrylonitrile	ND		ug/kg	4.8	1.4	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-19  
 Client ID: AT5596CE19  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
1,4-Dioxane	ND		ug/kg	95	42.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.21	1
p-Ethyltoluene	ND		ug/kg	2.4	0.46	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.41	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	102		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-20  
 Client ID: AT5596CE20  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 15:43  
 Analyst: MKS  
 Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.1	2.8	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.18	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.28	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.61	0.24	1
Chlorobenzene	ND		ug/kg	0.61	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.9	0.84	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	0.61	0.20	1
Bromodichloromethane	ND		ug/kg	0.61	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.33	1
cis-1,3-Dichloropropene	ND		ug/kg	0.61	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.61	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.61	0.19	1
Bromoform	ND		ug/kg	4.9	0.30	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.61	0.20	1
Benzene	2.9		ug/kg	0.61	0.20	1
Toluene	1.4		ug/kg	1.2	0.66	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.9	1.1	1
Bromomethane	ND		ug/kg	2.4	0.71	1
Vinyl chloride	ND		ug/kg	1.2	0.41	1
Chloroethane	ND		ug/kg	2.4	0.55	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.17	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-20  
**Client ID:** AT5596CE20  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.61	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.21	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.68	1
o-Xylene	ND		ug/kg	1.2	0.35	1
Xylenes, Total	ND		ug/kg	1.2	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	2.4	0.29	1
Styrene	ND		ug/kg	1.2	0.24	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	51		ug/kg	12	5.8	1
Carbon disulfide	ND		ug/kg	12	5.5	1
2-Butanone	6.6	J	ug/kg	12	2.7	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.25	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.34	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.61	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.18	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.9	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.9	0.79	1
Acrylonitrile	ND		ug/kg	4.9	1.4	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-20  
 Client ID: AT5596CE20  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.39	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.33	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.41	1
1,4-Dioxane	ND		ug/kg	97	43.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.22	1
p-Ethyltoluene	ND		ug/kg	2.4	0.47	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.41	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.1	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	102		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-21  
 Client ID: AT5596CE21  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 16:10  
 Analyst: MKS  
 Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.3	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	ND		ug/kg	0.53	0.21	1
Chlorobenzene	ND		ug/kg	0.53	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.73	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.53	0.18	1
Bromodichloromethane	ND		ug/kg	0.53	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.53	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.53	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.53	0.17	1
Bromoform	ND		ug/kg	4.2	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.53	0.17	1
Benzene	ND		ug/kg	0.53	0.17	1
Toluene	ND		ug/kg	1.0	0.57	1
Ethylbenzene	ND		ug/kg	1.0	0.15	1
Chloromethane	ND		ug/kg	4.2	0.98	1
Bromomethane	ND		ug/kg	2.1	0.61	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-21  
**Client ID:** AT5596CE21  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.53	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.59	1
o-Xylene	ND		ug/kg	1.0	0.31	1
Xylenes, Total	ND		ug/kg	1.0	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.1	0.25	1
Styrene	ND		ug/kg	1.0	0.21	1
Dichlorodifluoromethane	ND		ug/kg	10	0.96	1
Acetone	ND		ug/kg	10	5.1	1
Carbon disulfide	ND		ug/kg	10	4.8	1
2-Butanone	ND		ug/kg	10	2.3	1
Vinyl acetate	ND		ug/kg	10	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.53	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.15	1
n-Butylbenzene	ND		ug/kg	1.0	0.18	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.2	0.18	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.2	0.68	1
Acrylonitrile	ND		ug/kg	4.2	1.2	1



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-21  
**Client ID:** AT5596CE21  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**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/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.35	1
1,4-Dioxane	ND		ug/kg	84	37.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.19	1
p-Ethyltoluene	ND		ug/kg	2.1	0.40	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.36	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.3	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	105		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-22  
 Client ID: AT5596CE22  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 09/24/20 16:37  
 Analyst: MKS  
 Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.6	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.56	0.22	1
Chlorobenzene	ND		ug/kg	0.56	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.4	0.77	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	0.56	0.19	1
Bromodichloromethane	ND		ug/kg	0.56	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.56	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.56	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.56	0.18	1
Bromoform	ND		ug/kg	4.4	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.56	0.18	1
Benzene	ND		ug/kg	0.56	0.18	1
Toluene	ND		ug/kg	1.1	0.60	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.4	1.0	1
Bromomethane	ND		ug/kg	2.2	0.65	1
Vinyl chloride	ND		ug/kg	1.1	0.37	1
Chloroethane	ND		ug/kg	2.2	0.50	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.15	1

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-22  
 Client ID: AT5596CE22  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.56	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.62	1
o-Xylene	ND		ug/kg	1.1	0.32	1
Xylenes, Total	ND		ug/kg	1.1	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.2	0.26	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.4	1
Carbon disulfide	ND		ug/kg	11	5.1	1
2-Butanone	ND		ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.31	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.56	0.15	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.19	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.4	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.4	0.72	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

Lab ID: L2039252-22  
 Client ID: AT5596CE22  
 Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00  
 Date Received: 09/18/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.36	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.37	1
1,4-Dioxane	ND		ug/kg	89	39.	1
p-Diethylbenzene	ND		ug/kg	2.2	0.20	1
p-Ethyltoluene	ND		ug/kg	2.2	0.43	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.21	1
Ethyl ether	ND		ug/kg	2.2	0.38	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	104		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/24/20 08:43  
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,08-09,11-13 Batch: WG1414189-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/24/20 08:43  
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,08-09,11-13 Batch: WG1414189-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	0.18	J	ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/24/20 08:43  
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,08-09,11-13 Batch: WG1414189-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	0.27	J	ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	0.11	J	ug/kg	1.0	0.11
Naphthalene	1.0	J	ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	0.88	J	ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	0.59	J	ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	0.23	J	ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	96		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/24/20 11:38  
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 16-22 Batch: WG1414312-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/24/20 11:38  
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 16-22 Batch: WG1414312-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/24/20 11:38  
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 16-22 Batch: WG1414312-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	97		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/24/20 18:51  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,07,10,14-15 Batch: WG1414605-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	2.0		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/24/20 18:51  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,07,10,14-15 Batch: WG1414605-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	0.20	J	ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	0.22	J	ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/24/20 18:51  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,07,10,14-15 Batch: WG1414605-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	0.42	J	ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	0.30	J	ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	98		70-130

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/25/20 07:14  
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 06,17 Batch: WG1414642-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/25/20 07:14  
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 06,17 Batch: WG1414642-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/25/20 07:14  
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 06,17 Batch: WG1414642-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	0.26	J	ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	0.79	J	ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	0.61	J	ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	0.48	J	ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,08-09,11-13 Batch: WG1414189-3 WG1414189-4								
Methylene chloride	101		100		70-130	1		30
1,1-Dichloroethane	110		108		70-130	2		30
Chloroform	107		107		70-130	0		30
Carbon tetrachloride	120		118		70-130	2		30
1,2-Dichloropropane	114		113		70-130	1		30
Dibromochloromethane	102		103		70-130	1		30
1,1,2-Trichloroethane	100		102		70-130	2		30
Tetrachloroethene	118		115		70-130	3		30
Chlorobenzene	100		99		70-130	1		30
Trichlorofluoromethane	128		93		70-139	32	Q	30
1,2-Dichloroethane	105		106		70-130	1		30
1,1,1-Trichloroethane	120		117		70-130	3		30
Bromodichloromethane	113		114		70-130	1		30
trans-1,3-Dichloropropene	108		109		70-130	1		30
cis-1,3-Dichloropropene	122		122		70-130	0		30
1,1-Dichloropropene	127		124		70-130	2		30
Bromoform	96		98		70-130	2		30
1,1,2,2-Tetrachloroethane	92		91		70-130	1		30
Benzene	114		112		70-130	2		30
Toluene	98		96		70-130	2		30
Ethylbenzene	108		106		70-130	2		30
Chloromethane	108		104		52-130	4		30
Bromomethane	89		87		57-147	2		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,08-09,11-13 Batch: WG1414189-3 WG1414189-4								
Vinyl chloride	102		100		67-130	2		30
Chloroethane	79		78		50-151	1		30
1,1-Dichloroethene	124		122		65-135	2		30
trans-1,2-Dichloroethene	115		114		70-130	1		30
Trichloroethene	122		122		70-130	0		30
1,2-Dichlorobenzene	78		93		70-130	18		30
1,3-Dichlorobenzene	98		97		70-130	1		30
1,4-Dichlorobenzene	96		96		70-130	0		30
Methyl tert butyl ether	109		110		66-130	1		30
p/m-Xylene	111		110		70-130	1		30
o-Xylene	116		115		70-130	1		30
cis-1,2-Dichloroethene	113		113		70-130	0		30
Dibromomethane	109		109		70-130	0		30
Styrene	112		112		70-130	0		30
Dichlorodifluoromethane	125		121		30-146	3		30
Acetone	99		98		54-140	1		30
Carbon disulfide	109		107		59-130	2		30
2-Butanone	101		99		70-130	2		30
Vinyl acetate	108		108		70-130	0		30
4-Methyl-2-pentanone	101		100		70-130	1		30
1,2,3-Trichloropropane	92		93		68-130	1		30
2-Hexanone	92		92		70-130	0		30
Bromochloromethane	110		111		70-130	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,08-09,11-13 Batch: WG1414189-3 WG1414189-4								
2,2-Dichloropropane	124		120		70-130	3		30
1,2-Dibromoethane	99		99		70-130	0		30
1,3-Dichloropropane	97		97		69-130	0		30
1,1,1,2-Tetrachloroethane	104		105		70-130	1		30
Bromobenzene	101		100		70-130	1		30
n-Butylbenzene	96		102		70-130	6		30
sec-Butylbenzene	106		104		70-130	2		30
tert-Butylbenzene	109		106		70-130	3		30
o-Chlorotoluene	100		98		70-130	2		30
p-Chlorotoluene	104		103		70-130	1		30
1,2-Dibromo-3-chloropropane	93		102		68-130	9		30
Hexachlorobutadiene	108		75		67-130	36	Q	30
Isopropylbenzene	110		108		70-130	2		30
p-Isopropyltoluene	110		108		70-130	2		30
Naphthalene	101		80		70-130	23		30
Acrylonitrile	106		106		70-130	0		30
n-Propylbenzene	106		104		70-130	2		30
1,2,3-Trichlorobenzene	99		78		70-130	24		30
1,2,4-Trichlorobenzene	103		76		70-130	30		30
1,3,5-Trimethylbenzene	107		105		70-130	2		30
1,2,4-Trimethylbenzene	107		106		70-130	1		30
1,4-Dioxane	94		99		65-136	5		30
p-Diethylbenzene	100		106		70-130	6		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,08-09,11-13 Batch: WG1414189-3 WG1414189-4								
p-Ethyltoluene	109		106		70-130	3		30
1,2,4,5-Tetramethylbenzene	86		103		70-130	18		30
Ethyl ether	111		111		67-130	0		30
trans-1,4-Dichloro-2-butene	98		99		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	91		91		70-130
Toluene-d8	91		91		70-130
4-Bromofluorobenzene	107		107		70-130
Dibromofluoromethane	94		94		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 16-22 Batch: WG1414312-3 WG1414312-4								
Methylene chloride	92		88		70-130	4		30
1,1-Dichloroethane	103		99		70-130	4		30
Chloroform	95		93		70-130	2		30
Carbon tetrachloride	94		94		70-130	0		30
1,2-Dichloropropane	105		101		70-130	4		30
Dibromochloromethane	93		90		70-130	3		30
1,1,2-Trichloroethane	103		99		70-130	4		30
Tetrachloroethene	92		91		70-130	1		30
Chlorobenzene	96		94		70-130	2		30
Trichlorofluoromethane	64	Q	64	Q	70-139	0		30
1,2-Dichloroethane	106		103		70-130	3		30
1,1,1-Trichloroethane	93		92		70-130	1		30
Bromodichloromethane	97		97		70-130	0		30
trans-1,3-Dichloropropene	115		109		70-130	5		30
cis-1,3-Dichloropropene	110		107		70-130	3		30
1,1-Dichloropropene	101		100		70-130	1		30
Bromoform	98		98		70-130	0		30
1,1,2,2-Tetrachloroethane	114		111		70-130	3		30
Benzene	101		97		70-130	4		30
Toluene	104		101		70-130	3		30
Ethylbenzene	103		100		70-130	3		30
Chloromethane	124		126		52-130	2		30
Bromomethane	64		68		57-147	6		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 16-22 Batch: WG1414312-3 WG1414312-4								
Vinyl chloride	108		108		67-130	0		30
Chloroethane	77		76		50-151	1		30
1,1-Dichloroethene	63	Q	63	Q	65-135	0		30
trans-1,2-Dichloroethene	89		95		70-130	7		30
Trichloroethene	97		96		70-130	1		30
1,2-Dichlorobenzene	94		93		70-130	1		30
1,3-Dichlorobenzene	96		96		70-130	0		30
1,4-Dichlorobenzene	95		94		70-130	1		30
Methyl tert butyl ether	107		102		66-130	5		30
p/m-Xylene	104		101		70-130	3		30
o-Xylene	104		101		70-130	3		30
cis-1,2-Dichloroethene	93		90		70-130	3		30
Dibromomethane	93		92		70-130	1		30
Styrene	98		96		70-130	2		30
Dichlorodifluoromethane	98		100		30-146	2		30
Acetone	122		119		54-140	2		30
Carbon disulfide	66		65		59-130	2		30
2-Butanone	103		99		70-130	4		30
Vinyl acetate	114		108		70-130	5		30
4-Methyl-2-pentanone	121		116		70-130	4		30
1,2,3-Trichloropropane	117		115		68-130	2		30
2-Hexanone	118		113		70-130	4		30
Bromochloromethane	90		88		70-130	2		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 16-22 Batch: WG1414312-3 WG1414312-4								
2,2-Dichloropropane	105		104		70-130	1		30
1,2-Dibromoethane	98		96		70-130	2		30
1,3-Dichloropropane	107		103		69-130	4		30
1,1,1,2-Tetrachloroethane	95		93		70-130	2		30
Bromobenzene	93		93		70-130	0		30
n-Butylbenzene	113		111		70-130	2		30
sec-Butylbenzene	106		104		70-130	2		30
tert-Butylbenzene	104		102		70-130	2		30
o-Chlorotoluene	111		109		70-130	2		30
p-Chlorotoluene	113		110		70-130	3		30
1,2-Dibromo-3-chloropropane	100		102		68-130	2		30
Hexachlorobutadiene	82		84		67-130	2		30
Isopropylbenzene	105		103		70-130	2		30
p-Isopropyltoluene	105		105		70-130	0		30
Naphthalene	102		103		70-130	1		30
Acrylonitrile	105		100		70-130	5		30
n-Propylbenzene	110		107		70-130	3		30
1,2,3-Trichlorobenzene	94		96		70-130	2		30
1,2,4-Trichlorobenzene	96		98		70-130	2		30
1,3,5-Trimethylbenzene	108		105		70-130	3		30
1,2,4-Trimethylbenzene	111		108		70-130	3		30
1,4-Dioxane	120		112		65-136	7		30
p-Diethylbenzene	107		106		70-130	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 16-22 Batch: WG1414312-3 WG1414312-4								
p-Ethyltoluene	110		107		70-130	3		30
1,2,4,5-Tetramethylbenzene	107		106		70-130	1		30
Ethyl ether	73		72		67-130	1		30
trans-1,4-Dichloro-2-butene	128		126		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	108		110		70-130
Toluene-d8	104		102		70-130
4-Bromofluorobenzene	119		115		70-130
Dibromofluoromethane	91		92		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07,10,14-15 Batch: WG1414605-3 WG1414605-4								
Methylene chloride	92		89		70-130	3		30
1,1-Dichloroethane	94		90		70-130	4		30
Chloroform	91		90		70-130	1		30
Carbon tetrachloride	96		94		70-130	2		30
1,2-Dichloropropane	90		90		70-130	0		30
Dibromochloromethane	93		90		70-130	3		30
1,1,2-Trichloroethane	92		88		70-130	4		30
Tetrachloroethene	95		93		70-130	2		30
Chlorobenzene	88		88		70-130	0		30
Trichlorofluoromethane	96		92		70-139	4		30
1,2-Dichloroethane	91		89		70-130	2		30
1,1,1-Trichloroethane	93		91		70-130	2		30
Bromodichloromethane	88		89		70-130	1		30
trans-1,3-Dichloropropene	93		90		70-130	3		30
cis-1,3-Dichloropropene	90		91		70-130	1		30
1,1-Dichloropropene	96		95		70-130	1		30
Bromoform	95		92		70-130	3		30
1,1,1,2-Tetrachloroethane	89		87		70-130	2		30
Benzene	90		90		70-130	0		30
Toluene	92		90		70-130	2		30
Ethylbenzene	91		90		70-130	1		30
Chloromethane	94		88		52-130	7		30
Bromomethane	113		108		57-147	5		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07,10,14-15 Batch: WG1414605-3 WG1414605-4								
Vinyl chloride	93		90		67-130	3		30
Chloroethane	92		90		50-151	2		30
1,1-Dichloroethene	97		93		65-135	4		30
trans-1,2-Dichloroethene	98		95		70-130	3		30
Trichloroethene	90		90		70-130	0		30
1,2-Dichlorobenzene	90		92		70-130	2		30
1,3-Dichlorobenzene	93		94		70-130	1		30
1,4-Dichlorobenzene	93		94		70-130	1		30
Methyl tert butyl ether	94		89		66-130	5		30
p/m-Xylene	91		90		70-130	1		30
o-Xylene	89		90		70-130	1		30
cis-1,2-Dichloroethene	94		92		70-130	2		30
Dibromomethane	92		92		70-130	0		30
Styrene	90		91		70-130	1		30
Dichlorodifluoromethane	97		91		30-146	6		30
Acetone	100		89		54-140	12		30
Carbon disulfide	91		86		59-130	6		30
2-Butanone	87		82		70-130	6		30
Vinyl acetate	93		88		70-130	6		30
4-Methyl-2-pentanone	94		86		70-130	9		30
1,2,3-Trichloropropane	89		87		68-130	2		30
2-Hexanone	94		86		70-130	9		30
Bromochloromethane	96		93		70-130	3		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07,10,14-15 Batch: WG1414605-3 WG1414605-4								
2,2-Dichloropropane	97		94		70-130	3		30
1,2-Dibromoethane	93		89		70-130	4		30
1,3-Dichloropropane	90		87		69-130	3		30
1,1,1,2-Tetrachloroethane	90		90		70-130	0		30
Bromobenzene	92		91		70-130	1		30
n-Butylbenzene	93		94		70-130	1		30
sec-Butylbenzene	93		94		70-130	1		30
tert-Butylbenzene	92		93		70-130	1		30
o-Chlorotoluene	92		90		70-130	2		30
p-Chlorotoluene	91		91		70-130	0		30
1,2-Dibromo-3-chloropropane	96		91		68-130	5		30
Hexachlorobutadiene	91		94		67-130	3		30
Isopropylbenzene	94		94		70-130	0		30
p-Isopropyltoluene	94		94		70-130	0		30
Naphthalene	91		91		70-130	0		30
Acrylonitrile	93		86		70-130	8		30
n-Propylbenzene	93		93		70-130	0		30
1,2,3-Trichlorobenzene	95		97		70-130	2		30
1,2,4-Trichlorobenzene	96		97		70-130	1		30
1,3,5-Trimethylbenzene	92		92		70-130	0		30
1,2,4-Trimethylbenzene	93		93		70-130	0		30
1,4-Dioxane	118		103		65-136	14		30
p-Diethylbenzene	95		96		70-130	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07,10,14-15 Batch: WG1414605-3 WG1414605-4								
p-Ethyltoluene	94		94		70-130	0		30
1,2,4,5-Tetramethylbenzene	92		94		70-130	2		30
Ethyl ether	94		90		67-130	4		30
trans-1,4-Dichloro-2-butene	95		90		70-130	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		97		70-130
Toluene-d8	102		100		70-130
4-Bromofluorobenzene	101		99		70-130
Dibromofluoromethane	105		102		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 06,17 Batch: WG1414642-3 WG1414642-4								
Methylene chloride	86		90		70-130	5		30
1,1-Dichloroethane	79		84		70-130	6		30
Chloroform	93		99		70-130	6		30
Carbon tetrachloride	107		116		70-130	8		30
1,2-Dichloropropane	78		81		70-130	4		30
Dibromochloromethane	113		116		70-130	3		30
1,1,2-Trichloroethane	102		104		70-130	2		30
Tetrachloroethene	104		110		70-130	6		30
Chlorobenzene	97		101		70-130	4		30
Trichlorofluoromethane	116		123		70-139	6		30
1,2-Dichloroethane	93		98		70-130	5		30
1,1,1-Trichloroethane	104		112		70-130	7		30
Bromodichloromethane	101		107		70-130	6		30
trans-1,3-Dichloropropene	106		110		70-130	4		30
cis-1,3-Dichloropropene	93		99		70-130	6		30
1,1-Dichloropropene	101		107		70-130	6		30
Bromoform	121		122		70-130	1		30
1,1,2,2-Tetrachloroethane	103		100		70-130	3		30
Benzene	87		92		70-130	6		30
Toluene	96		100		70-130	4		30
Ethylbenzene	100		106		70-130	6		30
Chloromethane	81		87		52-130	7		30
Bromomethane	92		93		57-147	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 06,17 Batch: WG1414642-3 WG1414642-4								
Vinyl chloride	98		105		67-130	7		30
Chloroethane	82		88		50-151	7		30
1,1-Dichloroethene	97		102		65-135	5		30
trans-1,2-Dichloroethene	92		97		70-130	5		30
Trichloroethene	94		101		70-130	7		30
1,2-Dichlorobenzene	102		104		70-130	2		30
1,3-Dichlorobenzene	102		104		70-130	2		30
1,4-Dichlorobenzene	103		104		70-130	1		30
Methyl tert butyl ether	105		109		66-130	4		30
p/m-Xylene	100		105		70-130	5		30
o-Xylene	97		102		70-130	5		30
cis-1,2-Dichloroethene	90		96		70-130	6		30
Dibromomethane	96		99		70-130	3		30
Styrene	102		108		70-130	6		30
Dichlorodifluoromethane	133		141		30-146	6		30
Acetone	73		70		54-140	4		30
Carbon disulfide	76		81		59-130	6		30
2-Butanone	79		80		70-130	1		30
Vinyl acetate	78		81		70-130	4		30
4-Methyl-2-pentanone	92		95		70-130	3		30
1,2,3-Trichloropropane	106		104		68-130	2		30
2-Hexanone	91		93		70-130	2		30
Bromochloromethane	95		99		70-130	4		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 06,17 Batch: WG1414642-3 WG1414642-4								
2,2-Dichloropropane	103		110		70-130	7		30
1,2-Dibromoethane	107		109		70-130	2		30
1,3-Dichloropropane	101		105		69-130	4		30
1,1,1,2-Tetrachloroethane	112		118		70-130	5		30
Bromobenzene	104		106		70-130	2		30
n-Butylbenzene	98		101		70-130	3		30
sec-Butylbenzene	102		106		70-130	4		30
tert-Butylbenzene	104		106		70-130	2		30
o-Chlorotoluene	104		105		70-130	1		30
p-Chlorotoluene	103		104		70-130	1		30
1,2-Dibromo-3-chloropropane	110		112		68-130	2		30
Hexachlorobutadiene	118		126		67-130	7		30
Isopropylbenzene	104		105		70-130	1		30
p-Isopropyltoluene	104		107		70-130	3		30
Naphthalene	101		104		70-130	3		30
Acrylonitrile	78		80		70-130	3		30
n-Propylbenzene	101		102		70-130	1		30
1,2,3-Trichlorobenzene	107		110		70-130	3		30
1,2,4-Trichlorobenzene	107		110		70-130	3		30
1,3,5-Trimethylbenzene	104		106		70-130	2		30
1,2,4-Trimethylbenzene	103		104		70-130	1		30
1,4-Dioxane	111		118		65-136	6		30
p-Diethylbenzene	104		106		70-130	2		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 06,17 Batch: WG1414642-3 WG1414642-4								
p-Ethyltoluene	103		104		70-130	1		30
1,2,4,5-Tetramethylbenzene	106		108		70-130	2		30
Ethyl ether	94		99		67-130	5		30
trans-1,4-Dichloro-2-butene	91		91		70-130	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		106		70-130
Toluene-d8	101		102		70-130
4-Bromofluorobenzene	98		97		70-130
Dibromofluoromethane	102		104		70-130



# **INORGANICS & MISCELLANEOUS**

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-01  
**Client ID:** AT5596CE01  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	88.7		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-02

Client ID: AT5596CE02

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.5		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-03

Client ID: AT5596CE03

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.5		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-04

Client ID: AT5596CE04

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.5		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-05  
**Client ID:** AT5596CE05  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	73.1		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-06  
**Client ID:** AT5596CE06  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	61.8		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-07

Client ID: AT5596CE07

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	76.6		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI





Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-08

Client ID: AT5596CE08

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.6		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-09

Client ID: AT5596CE09

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.8		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-10

Client ID: AT5596CE10

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.7		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-11  
**Client ID:** AT5596CE11  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	82.4		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-12  
**Client ID:** AT5596CE12  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	71.9		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-13

Client ID: AT5596CE13

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	76.0		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-14

Client ID: AT5596CE14

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.2		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-15

Client ID: AT5596CE15

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.6		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI





Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-16

Client ID: AT5596CE16

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.9		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-17

Client ID: AT5596CE17

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	72.8		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-18

Client ID: AT5596CE18

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.6		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-19

Client ID: AT5596CE19

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.8		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-20

Client ID: AT5596CE20

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.7		%	0.100	NA	1	-	09/22/20 09:32	121,2540G	RI



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

**SAMPLE RESULTS**

**Lab ID:** L2039252-21  
**Client ID:** AT5596CE21  
**Sample Location:** GLENMONT, NY

**Date Collected:** 09/16/20 10:00  
**Date Received:** 09/18/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	85.9		%	0.100	NA	1	-	09/22/20 09:25	121,2540G	RI



Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

## SAMPLE RESULTS

Lab ID: L2039252-22

Client ID: AT5596CE22

Sample Location: GLENMONT, NY

Date Collected: 09/16/20 10:00

Date Received: 09/18/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.0		%	0.100	NA	1	-	09/22/20 09:25	121,2540G	RI



## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: BEACON ISLAND

Project Number: AT5596

Lab Number: L2039252

Report Date: 09/25/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-20 QC Batch ID: WG1412833-1 QC Sample: L2039252-01 Client ID: AT5596CE01						
Solids, Total	88.7	88.8	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 21-22 QC Batch ID: WG1412834-1 QC Sample: L2039435-01 Client ID: DUP Sample						
Solids, Total	93.2	92.5	%	1		20



**Project Name:** BEACON ISLAND**Lab Number:** L2039252**Project Number:** AT5596**Report Date:** 09/25/20**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(*)
L2039252-01A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-01B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-01X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-01Y	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-01Z	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-02A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-02B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-02X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-02Y	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-02Z	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-03A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-03B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-03X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-03Y	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-03Z	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-04A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-04B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-04X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-04Y	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-04Z	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-05A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-05B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-05X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)

**Project Name:** BEACON ISLAND**Lab Number:** L2039252**Project Number:** AT5596**Report Date:** 09/25/20**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2039252-05Y	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-05Z	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-06A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-06B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-06X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-06Y	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-06Z	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-07A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-07B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-07X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-07Y	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-07Z	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-08A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-08B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-08X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-08Y	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-08Z	Vial Water preserved split	A	NA		4.0	Y	Absent	23-SEP-20 04:24	NYTCL-8260(14)
L2039252-09A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-09B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-09X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-09Y	Vial Water preserved split	A	NA		4.0	Y	Absent	24-SEP-20 04:58	NYTCL-8260(14)
L2039252-09Z	Vial Water preserved split	A	NA		4.0	Y	Absent	24-SEP-20 04:58	NYTCL-8260(14)
L2039252-10A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-10B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-10X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-10Y	Vial Water preserved split	A	NA		4.0	Y	Absent	24-SEP-20 04:58	NYTCL-8260(14)
L2039252-10Z	Vial Water preserved split	A	NA		4.0	Y	Absent	24-SEP-20 04:58	NYTCL-8260(14)
L2039252-11A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2039252-11B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-11X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-11Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-11Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-12A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-12B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-12X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-12Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-12Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-13A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-13B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-13X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-13Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-13Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-14A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-14B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-14X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-14Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-14Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-15A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-15B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-15X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-15Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-15Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-16A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-16B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-16X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-16Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)

Project Name: BEACON ISLAND

Lab Number: L2039252

Project Number: AT5596

Report Date: 09/25/20

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2039252-16Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-17A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-17B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-17X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-17Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-17Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-18A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-18B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-18X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-18Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-18Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-19A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-19B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-19X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-19Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-19Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-20A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-20B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-20X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-20Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-20Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-21A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-21B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-21X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-21Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-21Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-22A	Plastic 2oz unpreserved for TS	A	NA		4.0	Y	Absent		TS(7)
L2039252-22B	Vial Large Septa unpreserved (4oz)	A	NA		4.0	Y	Absent		NYTCL-8260(14)

**Project Name:** BEACON ISLAND

**Project Number:** AT5596

Serial\_No:09252017:02

**Lab Number:** L2039252

**Report Date:** 09/25/20

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2039252-22X	Vial MeOH preserved split	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L2039252-22Y	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)
L2039252-22Z	Vial Water preserved split	A	NA		4.0	Y	Absent	<b>24-SEP-20 04:58</b>	NYTCL-8260(14)

**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

## 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.
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.

### Footnotes

Report Format: DU Report with 'J' Qualifiers



**Project Name:** BEACON ISLAND  
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- 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.

**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'.

**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. If a 'Total' result is requested, the results of its individual components will also be reported.

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.)

**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 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.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** BEACON ISLAND  
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**Data Qualifiers**

- 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.



**Project Name:** BEACON ISLAND  
**Project Number:** AT5596

**Lab Number:** L2039252  
**Report Date:** 09/25/20

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## 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

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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 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### 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.

**EPA TO-12** Non-methane organics

**EPA 3C** Fixed gases

**Biological Tissue Matrix:** EPA 3050B

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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, SM4500CI-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.**

### 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.**

#### 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.



# ATLANTIC TESTING LABORATORIES

## Environmental Chain-Of-Custody Record

No: 13474

L2037252

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607/773-1835 (F)  
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315/386-1012 (F)  
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315/786-2022 (F)  
labWT@atlantictesting.com

Project No.		Client Name			QA/QC Code		Parameters					Report Distribution			
AT5596 Page 1 of 3		McFarland Johnson Inc			<input type="checkbox"/> NYSDEC	<input type="checkbox"/> SW-846	VOL EPA Meth.					TAT Required:	<input type="checkbox"/> 6hr <input type="checkbox"/> 12hr <input type="checkbox"/> 24hr		
ATL Project Contact: Cheyanne Dashnaw		Project Location: Glenmont, NY			<input type="checkbox"/> NYSDOH	<input type="checkbox"/> CLP						E-mail Results:	<input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 5day	<input checked="" type="checkbox"/> 10day	C Dashnaw
Project Name: Beacon Island		Sample Type: GS			No. of Containers: 2							Notes:	<input type="checkbox"/> Other	<input type="checkbox"/> Other	@atlantictesting.com
Date	Time	Field Sample No.	Sample Location		Sample Type	No. of Containers						Laboratory Sample ID No.			
9/16	1000	AT5596CE01	Boring 5	0'-5' bgs	GS	2	X								
		AT5596CE02	Boring 6	10'-15' bgs	GS	2	X								
		AT5596CE03	Boring 8	5'-10' bgs	GS	2	X								
		AT5596CE04	Boring 11	15'-20' bgs	GS	2	X								
		AT5596CE05	Boring 12	0'-5' bgs	GS	2	X								
		AT5596CE06	Boring 13	10'-15' bgs	GS	2	X								
		AT5596CE07	Boring 15	5'-10' bgs	GS	2	X								
		AT5596CE08	Boring 16	15'-20' bgs	GS	2	X								
		AT5596CE09	Boring 17	0'-5' bgs	GS	2	X								
Samplers Name: Matt Cium		Date: 9/17/20	Received for Name:							Date:	Shipment Rec'd Intact?				
Samplers Signature: Kyle Crawford (for)		Time:	Laboratory Signature:							Time:	<input type="checkbox"/> YES <input type="checkbox"/> NO				
Samples Relinquished By:			Samples Received By:			Sample Type Code Key:			Laboratory Remarks						
Name: Kyle Crawford	Date: 9/18	Name: Jim Corley ARZ	Date: 9/18/20	Description:											
Signature: Kyle Crawford	Time:	Signature: Jim Corley	Time: 9:46	C Composite	Q QA/QC										
				G Grab	O Other										
				Matrix:											
				DW Drinking Water	S Soil										
				GW Groundwater	SL Sludge										
				WW Wastewater	WS Solid Waste										
				SM Stormwater	B Bulk										
				O Oil	WP Wipe										
				L Liquid	A Air										
Name: Jim Corley		Date: 9/18	Name: Nick Thayer		Date: 9/18/20										
Signature: Jim Corley		Time:	Signature: N Thayer		Time: 13:56										

Nick Thayer 9/18/20 1843 cumma 9/18/20 1843

Distribution: White with Samples  
Pink to ATL Files

ENV-001B





# ATLANTIC TESTING LABORATORIES

## Environmental Chain-Of-Custody Record

No: 13476

L239252

- |   |  |   |   |  |   |  |   |   |  |
|---|--|---|---|--|---|--|---|---|--|
| <b>Albany</b><br>22 Corporate Drive<br>Clifton Park, NY 12065<br>518/583-9144 (T)<br>518/583-9166 (F)<br>info@atlantictesting.com | <b>Binghamton</b><br>126 Park Avenue<br>Binghamton, NY 13903<br>607/773-1812 (T)<br>607/773-1835 (F)<br>info@atlantictesting.com | <b>Canton</b><br>6431 U.S. Highway 11<br>Canton, NY 13617<br>315/386-4578 (T)<br>315/386-1012 (F)<br>info@atlantictesting.com | <b>Elmira</b><br>2330 Route 352<br>Elmira, NY 14803<br>607/737-0700 (T)<br>607/737-0714 (F)<br>info@atlantictesting.com | <b>Plattsburgh</b><br>130 Arizona Ave<br>Plattsburgh, NY 12903<br>518/563-5878 (T)<br>518/562-1321 (F)<br>info@atlantictesting.com | <b>Poughkeepsie</b><br>251 Upper North Road<br>Highland, NY 12528<br>845/891-8098 (T)<br>845/891-8099 (F)<br>info@atlantictesting.com | <b>Rochester</b><br>3495 Winton Place<br>Rochester, NY 14623<br>585/427-9020 (T)<br>585/427-9021 (F)<br>info@atlantictesting.com | <b>Syracuse</b><br>6085 Court Street Road<br>Syracuse, NY 13206<br>315/699-5281 (T)<br>315/699-3374 (F)<br>info@atlantictesting.com | <b>Utica</b><br>301 St. Anthony Street<br>Utica, NY 13501<br>315/735-3309 (T)<br>315/735-0742 (F)<br>info@atlantictesting.com | <b>Watertown</b><br>26581 NYS Route 283<br>Watertown, NY 13601<br>315/786-7887 (T)<br>315/786-2022 (F)<br>info@atlantictesting.com |
|---|--|---|---|--|---|--|---|---|--|

Project No. <b>AT5596</b> Page <u>2</u> of <u>3</u>		Client Name <b>McFarland Johnson Inc</b>				QA/QC Code <input type="checkbox"/> NYSDEC <input type="checkbox"/> SW-846 <input type="checkbox"/> NYSDOH <input type="checkbox"/> CLP <input type="checkbox"/> Other		Parameters				Report Distribution TAT Required: <input type="checkbox"/> 6hr <input type="checkbox"/> 12hr <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 5day <input checked="" type="checkbox"/> 10day <input type="checkbox"/> Other E-mail Results: <b>cdashnaw</b> <b>labsat</b> @atlantictesting.com		Custody Seal: X = intact
ATL Project Contact: <b>Chyanne Dashnaw</b>		Project Name: <b>Beacon Island</b>				Project Location <b>Glenmont, NY</b>		VOL EPA Meth.				Notes		
Date	Time	Field Sample No.	Sample Location		Sample Type	No. of Containers	Laboratory Sample ID No.							
<b>9/11/20</b>	<b>1000</b>	<b>AT5596CE10</b>	<b>Boring 18 10'-15' bgs</b>		<b>GS</b>	<b>2</b>	<b>X</b>							
		<b>AT5596CE11</b>	<b>Boring 19 5'-10' bgs</b>		<b>GS</b>	<b>2</b>	<b>X</b>							
		<b>AT5596CE12</b>	<b>Boring 21 15'-20' bgs</b>		<b>GS</b>	<b>2</b>	<b>X</b>							
		<b>AT5596CE13</b>	<b>Boring 22 5'-10' bgs</b>		<b>GS</b>	<b>2</b>	<b>X</b>							
		<b>AT5596CE14</b>	<b>Boring 23 15'-20' bgs</b>		<b>GS</b>	<b>2</b>	<b>X</b>							
		<b>AT5596CE15</b>	<b>Boring 26 0'-5' bgs</b>		<b>GS</b>	<b>2</b>	<b>X</b>							
		<b>AT5596CE16</b>	<b>Boring 28 10'-15' bgs</b>		<b>GS</b>	<b>2</b>	<b>X</b>							
		<b>AT5596CE17</b>	<b>Boring 41 5'-10' bgs</b>		<b>GS</b>	<b>2</b>	<b>X</b>							
		<b>AT5596CE18</b>	<b>Boring 43 15'-20' bgs</b>		<b>GS</b>	<b>2</b>	<b>X</b>							
Samplers Name: <b>Knut Gliddi</b>		Date: <b>9/11/20</b>		Received for Name:		Date:		Shipment Rec'd Intact?						
Samplers Signature: <b>Kyle Crawford (for)</b>		Time:		Laboratory Signature:		Time:		<input type="checkbox"/> YES <input type="checkbox"/> NO						
Samples Relinquished By:				Samples Received By:				Sample Type Code Key:		Laboratory Remarks:				
Name:	<b>Kyle Crawford</b>		Date:	<b>9/11/20</b>		Name:	<b>Jim Conley</b>		Description:					
Signature:	<b>Kyle Crawford</b>		Time:			Signature:	<b>Jim Conley</b>		Matrix:					
Name:	<b>Jim Conley</b>		Date:	<b>9/15/20</b>		Name:	<b>Nick Thayer</b>		DW Drinking Water					
Signature:	<b>Jim Conley</b>		Time:			Signature:	<b>N Thayer</b>		GW Groundwater					
								WW Wastewater						
								SM Stormwater						
								O Oil						
								L Liquid						
								S Soil						
								SL Sludge						
								WS Solid Waste						
								B Bulk						
								WP Wipe						
								A Air						

**Nick Thayer** 9/18/20 1843 **Wendy** 9/15/20 1843

Distribution: White with Samples  
Pink to ATL Files





# ATLANTIC TESTING LABORATORIES

## Environmental Chain-Of-Custody Record

No: 13475  
L239252

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**Watertown**  
26581 NYS Route 283  
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315/786-7887 (T)  
315/786-2022 (F)  
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Project No.		Client Name			QA/QC Code		Parameters				Report Distribution			
AT5596		McFarland Johnson, Inc			<input type="checkbox"/> NYSDEC	<input type="checkbox"/> SW-846	VOC EPA Meth.						TAT Required:	<input type="checkbox"/> 6hr <input type="checkbox"/> 12hr <input type="checkbox"/> 24hr
Page 3 of 3					<input type="checkbox"/> NYSDOH	<input type="checkbox"/> CLP							E-mail Results:	<input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 5day
ATL Project Contact:		Cheyanne Dashnaw			Project Location									<input checked="" type="checkbox"/> 10day
Project Name:		Beacon Island			Glenmont, NY									<input type="checkbox"/> Other
Date	Time	Field Sample No.	Sample Location		Sample Type	No. of Containers							Notes	Laboratory Sample ID No.
9/16	1000	AT5596LE19	Boring 44 0'-5' bgs		GS	2	X							
		AT5596LE20	Boring 45 10'-15' bgs		GS	2	X							
		AT5596LE21	Boring 30 5'-10' bgs		GS	2	X							
		AT5596LE22	Boring 31 15'-20' bgs		GS	2	X							

*Kyle Crawford*

Samplers Name:	Knut Gliddi	Date:	9/17/20	Received for Name:		Date:		Shipment Rec'd Intact?
Samplers Signature:	<i>Kyle Crawford (for)</i>	Time:		Laboratory Signature:		Time:		<input type="checkbox"/> YES <input type="checkbox"/> NO

Samples Relinquished By:				Samples Received By:				Sample Type Code Key:				Laboratory Remarks	
Name:	Kyle Crawford	Date:	9/18	Name:	Jim Conley AA	Date:	9/18/20	C	Composite	O	QA/QC		
Signature:	<i>Kyle Crawford</i>	Time:		Signature:	<i>Jim Conley</i>	Time:	9:46	G	Grab	D	Other		
Name:	Jim Conley	Date:	9/18	Name:	Nick Thayer	Date:	9/18/20	DW	Drinking Water	S	Soil		
Signature:	<i>Jim Conley</i>	Time:		Signature:	<i>N Thayer</i>	Time:	13:56	GW	Groundwater	SL	Sludge		
								WW	Wastewater	WS	Solid Waste		
								SM	Sewerwater	B	Bulk		
								O	Oil	WP	Wipe		
								L	Liquid	A	Air		

*Nick Thayer 9/18/20 1843* *mem m* *9/18/20 1843*

Distribution: White with Samples  
Pink to ATL Files

**APPENDIX F**

**SUMMARY OF LABORATORY ANALYSIS RESULTS**

**Table F-1  
Summary of Laboratory Analysis Results- VOC  
Soil Samples Collected September 16, 2020**

Sample Location	Boring 5	Boring 6	Boring 8	Boring 11	Boring 12	Boring 13	Boring 15	Boring 16	Boring 17	Boring 18	Boring 19	6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level	6 NYCRR Part 360 Fill Material Beneficial Use Criteria		
	Sample ID	AT5596 CE01	AT5596 CE02	AT5596 CE03	AT5596 CE04	AT5596 CE05	AT5596 CE06	AT5596 CE07	AT5596 CE08	AT5596 CE09	AT5596 CE10				AT5596 CE11	General Fill	Restricted-Use Fill
Sample Depth*	0' - 5'	10' -15'	5' - 10'	15' - 20'	0' - 5'	10' -15'	5' - 10'	15' - 20'	0' - 5'	10' -15'	5' - 10'						
<b>VOC(ppm)</b>																	
Acetone	ND	0.03	ND	ND	ND	<b>0.21</b>	ND	ND	ND	ND	ND	0.05	500	1,000	0.05	0.05	0.05
2-Butanone (MEK)	ND	0.0037	ND	ND	ND	0.038	ND	ND	ND	ND	ND	0.12	500	1,000	0.12	0.12	0.12
Benzene	ND	ND	ND	ND	ND	ND	0.0002	ND	ND	ND	ND	0.06	44	89	0.06	0.06	0.06
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---
Sample Location	Boring 21	Boring 22	Boring 23	Boring 26	Boring 28	Boring 41	Boring 43	Boring 44	Boring 45	Boring 30	Boring 31	6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level	6 NYCRR Part 360 Fill Material Beneficial Use Criteria		
	Sample ID	AT5596 CE12	AT5596 CE013	AT5596 CE14	AT5596 CE15	AT5596 CE16	AT5596 CE17	AT5596 CE18	AT5596 CE19	AT5596 CE20	AT5596 CE21				AT5596 CE22	General Fill	Restricted-Use Fill
Sample Depth*	15' - 20'	5' - 10'	15' - 20'	0' - 5'	10' -15'	5' - 10'	15' - 20'	0' - 5'	10' -15'	15' - 20'	15' - 20'						
<b>VOC(ppm)</b>																	
Acetone	0.041	ND	ND	ND	ND	ND	0.02	ND	<b>0.051</b>	ND	ND	0.05	500	1,000	0.05	0.05	0.05
2-Butanone (MEK)	0.0078	ND	ND	ND	ND	ND	0.0034	ND	0.0066	ND	ND	0.12	500	1,000	0.12	0.12	0.12
Benzene	ND	ND	ND	ND	0.00044	ND	ND	ND	0.0029	ND	ND	0.06	44	89	0.06	0.06	0.06
Tetrachloroethene	ND	ND	ND	ND	ND	0.0038	ND	ND	ND	ND	ND	1.3	150	300	1.3	1.3	1.3
Methylene chloride	ND	ND	ND	ND	ND	0.0033	ND	ND	ND	ND	ND	0.05	500	1,000	0.05	0.05	0.05
Toulene	ND	ND	ND	ND	ND	0.0029	ND	ND	0.0014	ND	ND	0.7	500	1,000	0.7	0.7	0.7
Naphthalene	ND	ND	ND	ND	ND	0.0021	ND	ND	ND	ND	ND	12	500	1,000	12	12	12
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	0.00022	ND	ND	ND	ND	11	500	1,000	11	11	11
p-Diethylbenzene	ND	ND	ND	ND	ND	ND	0.00024	ND	ND	ND	ND	---	---	---	---	---	---
1,2,4,5-Tetramethylbenzene	ND	ND	ND	ND	ND	ND	0.0013	ND	ND	ND	ND	---	---	---	---	---	---
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---

**NOTES:**

Samples collected as grab samples from selected boring locations.

See Sample Location Plan in Appendix A.

\*= Depth in feet below existing ground surface.

Samples collected by representatives of Atlantic Testing Laboratories, Limited on September 16, 2020, and analyzed by Alpha Analytical, Inc. (NYSDOH ELAP No. 11148).

Copies of the laboratory report and sample custody documentation are contained in Appendix C.

ppm= parts per millions

VOC= volatile organic compounds

ND= Not detectable above laboratory method detection limit

NYSDEC Unrestricted Use Soil Cleanup Levels were obtained from 6 NYCRR Part 375 (Unrestricted Use Soil Cleanup Objectives) or the NYSDEC Final Commissioner Policy, CP-51, dated October 21, 2010 (most restrictive of available standards for Supplemental Soil Cleanup Objectives).

NYSDEC Commercial Soil Cleanup Levels and Industrial Soil Cleanup Levels were obtained from the corresponding standards listed in 6 NYCRR Part 375 or NYSDEC CP-51.

6 NYCRR Part 360 Fill Material Beneficial Criteria were obtained from the Maximum Contaminant Levels description in Table 2 of 6 NYCRR Part 360.13(f).

Values in bold exceed the NYSDEC Unrestricted Use Soil Cleanup Levels. Values in bold and italics exceed the NYSDEC General Fill Material Beneficial Use Criteria.

**Table F-2**  
**Summary of Laboratory Analysis Results-Semi-VOC, PCB, Cyanide, Pesticides, and Metals**  
**Soil Samples Collected September 16, 2020**

Sample Location	Borings 5, 6, and 8	Borings 10, 11, and 12	Borings 13, 15, and 16	Borings 17, 18, and 19	Borings 21, 22, and 23	Borings 24 and 25	Borings 26 and 27	Borings 28 and 29	Borings 41 and 43	Borings 44 and 45	Borings 30 and 31	6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP- 360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP- 360 Industrial Soil Cleanup Level	6 NYCRR Part 360 Fill Material Beneficial Use Criteria***		
															General Fill	Restricted- Use Fill	Limited-Use Fill
Sample ID	AT5596 CECS01	AT5596 CECS02	AT5596 CECS03	AT5596 CECS04	AT5596 CECS05	AT5596 CECS06	AT5596 CECS07	AT5596 CECS08	AT5596 CECS09	AT5596 CECS10	AT5596 CECS11						
Sample Depth*	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'						
<b>Semi-VOC(ppm)</b>																	
Fluoranthene	0.14	ND	ND	ND	0.25	ND	ND	0.17	0.14	0.024	0.15	100	500	1,000	100	100	100
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.034	ND	12	500	1,000	12	12	12
Benzo(a)anthracene	0.13	ND	ND	ND	0.16	ND	ND	0.13	0.066	ND	0.11	1	5.6	11	1	See BAPE	See BAPE
Benzo(a)pyrene	0.1	ND	ND	ND	0.13	ND	ND	0.15	0.067	ND	0.088	1	1	1.1	1	See BAPE	See BAPE
Benzo(b)fluoranthene	0.13	ND	ND	ND	0.15	ND	ND	0.14	0.072	ND	0.093	1	5.6	11	1	See BAPE	See BAPE
Benzo(k)fluoranthene	0.032	ND	ND	ND	0.055	ND	ND	0.048	ND	ND	0.044	0.8	56	110	1	See BAPE	See BAPE
Chrysene	0.091	ND	ND	ND	0.14	ND	ND	0.11	0.059	0.02	0.085	1	56	110	1	See BAPE	See BAPE
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	0.058	ND	ND	ND	20	500	1,000	98	98	98
Benzo(ghi)perylene	0.056	ND	ND	ND	0.042	ND	ND	0.069	0.033	ND	0.03	100	500	1,000	100	100	100
Phenanthrene	0.058	ND	ND	ND	0.077	ND	ND	0.094	0.091	ND	0.062	100	500	1,000	100	100	100
Indeno(1,2,3-cd)pyrene	0.057	ND	ND	ND	0.059	ND	ND	0.074	0.037	0.024	0.04	0.5	5.6	11	0.5	See BAPE	See BAPE
Pyrene	0.14	ND	ND	ND	0.22	ND	ND	0.18	0.14	0.024	0.13	100	500	1,000	100	100	100
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.036	ND	0.41	---	---	---	---	---
3-Methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	0.082	ND	ND	---	---	---	---	---	---
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---
Total Benzo(a)pyrene Equivalent**	0.136	ND	ND	ND	0.174	ND	ND	0.190	0.085	0.003	0.118	---	---	---	---	3	3
<b>PCB(ppm)</b>																	
Total PCB	0.0093	0.0272	0.0121	ND	ND	ND	ND	ND	0.00927	ND	ND	0.1	1	25	1	1	1
<b>Cyanide (ppm)</b>																	
Cyanide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	27	27	10,000	27	27	27
<b>Pesticides (ppm)</b>																	
Dieldrin	ND	0.000972	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.005	1.4	2.8	0.039	0.039	0.039
4,4'- DDE	ND	0.0016	ND	ND	0.000683	ND	ND	ND	<b>0.00724</b>	ND	ND	0.0033	62	120	1.8	1.8	1.8
4,4'- DDD	ND	<b>0.00592</b>	0.000828	ND	ND	ND	ND	ND	<b>0.00672</b>	ND	ND	0.0033	92	180	2.6	2.6	2.6
4,4'- DDT	ND	0.00202	ND	ND	ND	ND	ND	ND	0.00242	ND	ND	0.0033	47	94	1.7	1.7	1.7
trans-Chlordane	0.00122	0.00135	0.000729	ND	0.00201	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---
<b>Hexavalent Chromium (ppm)</b>																	
Hexavalent Chromium	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.306	ND	1	400	800	19	19	19



**Table F-2 (continued)**  
**Summary of Laboratory Analysis Results-Semi-VOC, PCB, Cyanide, Pesticides, and Metals**  
**Soil Samples Collected September 16, 2020**

Sample Location	Borings 5, 6, and 8	Borings 10, 11, and 12	Borings 13, 15, and 16	Borings 17, 18, and 19	Borings 21, 22, and 23	Borings 24 and 25	Borings 26 and 27	Borings 28 and 29	Borings 41 and 43	Borings 44 and 45	Borings 30 and 31	6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP- 360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP- 360 Industrial Soil Cleanup Level	6 NYCRR Part 360 Fill Material Beneficial Use Criteria***		
															General Fill	Restricted- Use Fill	Limited-Use Fill
Sample ID	AT5596 CECS01	AT5596 CECS02	AT5596 CECS03	AT5596 CECS04	AT5596 CECS05	AT5596 CECS06	AT5596 CECS07	AT5596 CECS08	AT5596 CECS09	AT5596 CECS10	AT5596 CECS11						
Sample Depth*	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'	0' - 20'						
<b>TAL Metals (ppm)</b>																	
Aluminum	6,650	8,720	9,590	6,920	7,560	<b>10,900</b>	8,490	6,520	<b>12,700</b>	6,780	7,050	10,000	---	---	---	---	---
Antimony	0.432	0.928	0.508	0.365	0.353	0.819	0.936	1.12	0.714	0.789	0.704	12	---	---	---	---	---
Arsenic	7.02	<b>16.4</b>	6.69	9.68	11.7	3.54	4.9	5.04	6.99	4.56	3.31	13	16	16	16	16	16
Barium	71.6	180	119	74.7	146	77.6	71.8	51.4	93.6	59.9	60.3	350	400	10,000	350	350	400
Beryllium	0.432	0.701	0.592	0.272	0.586	0.647	0.501	0.338	0.655	0.376	0.401	7.2	590	2,700	14	14	590
Calcium	5,840	5,380	5,430	6,650	4,100	3,090	6,950	3,940	<b>26,900</b>	5,130	5,330	10,000	---	---	---	---	---
Chromium	9.96	13.1	13.4	10.6	12.9	14.9	12.4	12.1	17.3	13.8	10.6	30	1,500	6,800	NS	NS	1,500
Cobalt	6.32	5.87	6.36	6.96	5.82	7.17	8.34	7.72	11.8	6.9	7.54	20	---	---	---	---	---
Copper	15.1	24.9	30.3	13.6	13.7	12.3	20.2	19.4	28.5	12.0	15.1	50	270	10,000	270	270	270
Iron	<b>16,300</b>	<b>24,000</b>	<b>22,800</b>	<b>21,300</b>	<b>15,300</b>	<b>22,000</b>	<b>19,400</b>	<b>16,600</b>	<b>28,800</b>	<b>18,400</b>	<b>16,500</b>	2,000	---	---	---	---	---
Lead	7.87	12.7	8.68	9.82	12.5	9.26	10.0	19.0	14.0	7.38	11.1	63	1,000	3,900	400	400	1,000
Magnesium	4,060	2,350	2,760	3,810	2,740	3,850	4,390	4,070	9,500	3,400	4,030	---	---	---	---	---	---
Manganese	186	127	204	384	188	261	311	347	525	237	296	1,600	10,000	10,000	2,000	2,000	10,000
Mercury	ND	ND	ND	0.072	ND	ND	ND	0.077	ND	ND	ND	0.18	2.8	5.7	0.73	0.73	2.8
Nickel	13.1	20.7	<b>30.2</b>	74.1	13.9	18.8	22.0	15.0	26.2	15.0	17.8	30	310	10,000	130	130	310
Potassium	428	701	669	620	596	477	550	409	1,360	523	581	---	---	---	---	---	---
Selenium	ND	1.03	0.240	0.496	0.325	ND	0.463	0.382	0.278	ND	ND	3.9	1,500	6,800	4	4	1,500
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	1,500	6,800	8.3	8.3	1,500
Sodium	104	260	237	126	176	44.3	70.0	37.1	131	76.7	65.5	---	---	---	---	---	---
Thallium	ND	0.312	ND	ND	ND	ND	ND	0.284	ND	ND	ND	5	---	---	---	---	---
Vanadium	14.9	<b>53.0</b>	<b>94.4</b>	<b>586</b>	26.6	20.1	35.4	13.7	22.0	19.3	25.5	39	---	---	---	---	---
Zinc	38.9	34.8	56.4	42.7	33.3	66.2	53.6	55.6	63.8	43.9	51.2	109	10,000	10,000	2,200	2,200	10,000
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---

**NOTES:**  
Samples collected as composite comprised of 8 to 12 grab samples of a designated section of the soil borings.  
Samples collected by representatives of Atlantic Testing Laboratories, Limited on September 16 2020, and analyzed by Alpha Analytical, Inc. (NYSDOH ELAP No. 11148).  
Copies of the laboratory report and sample custody documentation are contained in Appendix C.  
\*= Depth in feet below top of sediment  
Semi-VOC= semi-volatile organic compounds  
PCB= polychlorinated biphenyls  
TAL Metals= Target Analyte List Metals  
See Sample Location Plan in Appendix A.  
ppm = parts per million, or mg/kg.  
ND = Not detected above laboratory method detection limit  
NA = Not Applicable Regulated Level Under 6 NYCRR PART 375  
NYSDEC Unrestricted Use Soil Cleanup Levels were obtained from 6 NYCRR Part 375 (Unrestricted Use Soil Cleanup Objectives) or the NYSDEC Final Commissioner Policy, CP-51, dated October 21, 2010 (most restrictive of available standards for Supplemental Soil Cleanup Objectives). NYSDEC Commercial Soil Cleanup Levels and Industrial Soil Cleanup Levels were obtained from the corresponding standards listed in 6 NYCRR Part 375 or NYSDEC CP-51.  
6 NYCRR Part 360 Fill Material Beneficial Criteria were obtained from the Maximum Contaminant Levels description in Table 2 of 6 NYCRR Part 360.13(f).  
\*\*\*= Benzo(a)pyrene (BAPE) equivalent is calculated using the following formula: BAPE= 1 x conc. Benzo(a)pyrene + 0.1 x [conc. Benz(a)anthracene + conc. Benzo(b)fluoranthene + conc. Benzo(k)fluoranthene + conc. Dibenz(a,h)anthracene + conc. Indeno(1,2,3-c,d)pyrene] + 0.01 x conc. Chrysene (All concentrations in mg/kg or ppm, dry weight).  
\*\*\*= For Nassau and Suffolk Counties, additional restrictions apply (reference 6 NYCRR Part 360.13(f)).  
Values in bold exceed the NYSDEC Unrestricted Use Soil Cleanup Levels. Values in bold and italics exceed the NYSDEC General Fill Material Beneficial Use Criteria.



# Geotechnical Engineering Report

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**Proposed Marmen Manufacturing Facility  
Port of Albany, New York**

February 4, 2022

Terracon Project No. JB215020

**Prepared for:**

McFarland-Johnson, Inc.  
Saratoga Springs, New York

**Prepared by:**

Terracon Consultants - NY, Inc.  
Albany, New York



February 4, 2022

McFarland-Johnson, Inc.  
66 Railroad Place – Suite 402  
Saratoga Springs, NY 12866



Attn: Mr. Steven Boisvert, P.E.  
p: (518) 580-9380  
e: sboisvert@mjinc.com

Re: Geotechnical Engineering Report  
Proposed Marmen Manufacturing Facility  
Port of Albany, New York  
Terracon Project No. JB215020

Dear Mr. Boisvert:

We have completed the Geotechnical Engineering services for the referenced project. This study was performed in general accordance with Terracon proposal no. PJB215020 and the agreement for subconsultant professional services between McFarland-Johnson and Terracon entered into on or about June 1, 2021. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations, floor slabs and pavements for the project.

Terracon submitted a draft geotechnical report for this project in October 2021, and we understand the design team has completed their review of the draft report. This final report has been prepared cognizant of comments made through the review and evaluation process and has been updated and/or revised accordingly.

We appreciate the opportunity to be of service to you. If you have any questions concerning this report or if we may be of further service, please contact us at your convenience.

Sincerely,

**Terracon Consultants-NY, Inc.**

John S. Hutchison, P.E.  
Senior Engineer

Joseph Robichaud, Jr., P.E.  
Principal / Office Manager

Fred Dente, P.E.  
Independent Consultant

## REPORT TOPICS

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**Note:** This report was originally delivered in a web-based format. **Orange Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the **GeoReport** logo will bring you back to this page. For more interactive features, please view your project online at [client.terracon.com](http://client.terracon.com).

## ATTACHMENTS

**EXPLORATION AND TESTING PROCEDURES**  
**SITE LOCATION AND EXPLORATION PLANS**  
**EXPLORATION RESULTS**  
**SUPPORTING INFORMATION**

**Note:** Refer to each individual Attachment for a listing of contents

**Geotechnical Engineering Report**  
**Proposed Marmen Manufacturing Facility**  
**Port of Albany, New York**  
**Terracon Project No. JB215020**  
**February 4, 2022**

## **INTRODUCTION**

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed Marmen manufacturing facility on Beacon Island at the Port of Albany, New York. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site preparation and earthwork
- Seismic site classification
- Slope stability
- Foundation design and construction
- Floor slab design and construction
- Pavement design and construction
- Retaining wall design and construction
- Frost considerations

The geotechnical engineering scope of services for this project included the advancement of 18 conventional test borings to depths ranging from 30.1 to 165.0 feet below existing site grades, completion of 12 test pits to depths between 11.5 and 16 feet, site reconnaissance by a geotechnical engineer, laboratory testing of selected soil samples, and preparation of this summary report.

Previous subsurface and/or geotechnical investigations have been completed by Dente/Terracon and others on the Beacon Island site. These include:

- Environmental Subsurface Investigation and Soil Sampling – ATL, October 2020
- Subsurface Exploration Data Report (for Wharf) – CME Associates, October 2020
- Subsurface Investigation (at Bridge Site) – ATL, May 2020
- Supplemental Geotechnical Report – Dente/Terracon, July 2017
- Preliminary Geotechnical Evaluation – CME Associates, April 2017
- Phase II Environmental Site Assessment – Bergmann Associates, April 2017

Information from these previous studies has been considered in the preparation of this report and is included herein where referenced and as applicable.

Note that an additional six boreholes were included in a contingency work scope which was ultimately not carried out, as the information from the base scope boreholes coupled with that from the previous investigations at the site was ultimately judged sufficient for the purposes of this study.

Maps indicating the site and test boring locations are included as the attached **Site Location** and **Exploration Plan**, respectively.

## SITE CONDITIONS

Existing conditions at the site are summarized in the following table:

Item	Description
<b>Parcel Information</b>	The project site is located in the town of Bethlehem, New York along the west side of the Hudson River, south of the currently developed portion of the Port of Albany and the point at which the Normanskill Creek empties into the river. The site is about 80 acres in size, with geographic coordinates at the approximate center of the parcel at 42.6038° N, 73.7656° W.
<b>Existing Improvements</b>	None, other than an abandoned railroad spur.
<b>Current Ground Cover</b>	Woods and heavy vegetation currently comprise the ground cover across much of the site, although some trails and traveled ways have been established in places. A clearing exists at the south end of the site.
<b>Existing Topography</b>	Topographic mapping provided for our use indicates that existing landside grades currently range between elevations of about 7 and 21 feet, and slope down accordingly along the banks of the tidally influenced river and creek where mean high water level is reportedly elevation 3.8 feet.
<b>Geology</b>	NYS geologic mapping indicates alluvial deposits in the site locale. Previous subsurface investigations in the area indicate the site is mantled with fill materials and river sediments, followed in sequence with depth by alluvial deposits, glaciolacustrine silt and clay, glacial till and ultimately shale bedrock.

The site is situated in an area once occupied by Beacon Island and a portion of Cabbage Island in the Hudson River, along with side channels of the river that separated the islands from both the mainland and from one another. Review of available historical topographic and aerial imaging reveals that previously submerged portions of the site have been filled over the last 100 years or so, in effect joining the site with the mainland.

As has been described in the previously referenced reports, much of this filling occurred through the placement of waste coal ash from the power generating station just south of the site. The plant was coal fired upon its construction in the early 1950s until about 1970, when its boilers were converted to use fuel oil and later natural gas. Waste coal ash during the plant's coal burning years was disposed of on the project site, primarily on the site's west side and at its south end. The method of placement of the coal ash is unknown with certainty, but is believed to have been transported in bulk and pushed/tracked into place as opposed to hydraulically placed.

## **PROJECT DESCRIPTION**

### **General**

As we understand it, the project entails construction of a new industrial facility where off-shore wind turbine supports will be manufactured. In general, this will involve the fabrication of large cylindrical tower sections and transition pieces from flat steel stock. Raw material will arrive at the existing Port of Albany north of the site and will be transported to the site via a new bridge which is to be built across the Normanskill Creek (we have addressed the bridge in a separate geotechnical report). Finished product will be shipped out from a wharf to be constructed near the site's northeast corner (note that the wharf is being designed by others and is not addressed herein).

The facility will be comprised of four separate buildings (Buildings A thru D), along with a gravel surfaced yard area for the storage/staging of finished tower sections and transition pieces prior to shipment from the wharf. The function and relative size of each proposed building are outlined as follows:

- Building A – Plate Preparation and Welding (291,617 sq.ft.)
- Building B – Welding Finishing (89,074 sq.ft.)
- Building C – Blast-Metallization-Paint (142,371 sq.ft.)
- Building D – Internal Assembly/Finishing (67,217 sq.ft.)

Plans call for these to be single-story, high-bay, slab-on-grade buildings with pre-fabricated metal superstructures. No below grade levels are planned, although one or more service pits up to 8 feet in depth will be included in Buildings A and C. The buildings and some areas about their exterior will include rails embedded in the slabs to facilitate production flow and material transport with tower rotators and transfer cars on the rails. The buildings will also feature overhead cranes for picking and moving materials and equipment about their interiors.

In the gravel surfaced yard area, the tower sections will be staged/stored horizontally, and the transition pieces will be staged/stored vertically. The fabricated product will be moved about using large reach stackers and self-propelled modular transporters (SPMTs) as described below. Curbs will in general define the limits of the yard area, beyond which grades will slope down to the river or creek.

### **Anticipated Loads**

Generally speaking, the products to be manufactured at the facility, the materials from which they will be fabricated, and the equipment required to move these items about are all rather large and heavy. Marmen has furnished a load case document outlining a number of anticipated loading conditions associated with the anticipated material handling and plant operations. These include:

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Load Case	Description
A	Tower rotator on rails
B	Transfer car on rails
C	Steel shells on slab
D	Metallization transfer car
E	Plate trailer, 130,000 lb. tandem axle
F	36,000 lb. capacity forklift
G	70,000 lb. capacity forklift
H	HLM 3500 reach stacker (loaded)
J	HLM 3500 reach stacker (unladen)
K	Tower section and transition piece storage

As we understand it, load cases A thru D in the table above represent those which will act on rails embedded in the building or exterior slabs, or those which will be imparted on the slabs themselves, whereas load cases E thru J may act on either the slabs or on the gravel surfaced yard area. Load case K represents storage of the manufactured product which will take place only in the yard area east of the buildings.

For the purposes of this evaluation, we understand that combined live and dead loads within the building and exterior slab areas will not exceed 600 pounds per square foot (psf) when aggregated across a given building (or slab) footprint. Individual building column loads, when coupled with crane loads, are not expected to exceed 256 kips at Buildings B thru D. At Building A this load combination is anticipated to be upwards of 899 kips, or in the most extreme case 1365 kips assuming maximum snow, crane and operational loads all coinciding which, in the event this were to occur, would be transient. The design team has informed us that there are no substantial reciprocating loads.

Among the transport vehicles which will traverse the gravel surfaced yard, it appears the loaded reach stacker represents the most severe case. The reach stacker laden front axle design load is 449 metric tons (495 tons imperial) which will ride on five large tires inflated to 8.0 bar (117.6 psi) each. Total area under the front axle is about 156 sq.ft., resulting in an overall unit ground pressure of about 6,300 psf beneath the axle.



Although not listed among the load cases, self-propelled modular transporters (SPMTs) will also traverse the yard. Each SPMT has a design laden gross weight of 240 metric tons (265 tons imperial) which will ride on 16 polyfilled tires. Total area under the carriage is about 146 sq.ft., resulting in an overall unit ground pressure of about 3,600 psf beneath the carriage. It is understood that both the reach stackers and SPMTs will be restricted from areas west of Buildings A, B and C, and north of Buildings C and D.

We understand that fabricated tower sections will be upwards of 10 meters (32.8 feet) in diameter, 50 meters (164 feet) in length and will weigh up to 800 metric tons (1,760,000 pounds), while the transition pieces will be upwards of 10 meters (32.8 feet) in diameter, 35 meters (115 feet) in length and will weigh up to 800 metric tons (1,760,000 pounds).

As detailed in load case K, plans call for the tower sections to be staged horizontally on moveable storage fixtures, one on each end. Each fixture is to have two bearing plates which will bear on the gravel yard surface, each plate 20 sq.ft. in plan area, this resulting in a unit contact pressure upwards of 22,000 psf as currently planned.

The transition pieces are to be staged in a vertical position, on modular jersey barrier-like units 1.25 meters (4.1 feet) wide at their base and 10 to 14 meters (32.8 to 45.9 feet) in length. Each transition piece is to be supported on three units, with resulting contact pressures at the base of the units bearing on the gravel yard surface between 3,300 psf and 4,700 psf.

### **Tolerable Settlements**

The Marmen load case document outlines tolerances for relative rail displacements and accommodating these will largely be a function of slab stiffness, as we understand it.

The document lists maximum allowable settlement at exterior man door and garage door slabs as 1 inch relative to the building, and maximum allowable settlement at interior and exterior slabs with rails as ½ inch relative to the rails and/or building.

While we have not been provided with allowable settlement for the buildings as a whole, it is our understanding that steel framed, metal clad structures of this type are relatively settlement tolerant, and displacements of two to three inches can usually be accommodated without causing a structural concern.

In the yard area, we understand the end user acknowledges rutting, aggregate kick-out and/or settlement of the aggregate surface will occur with use over time, and that they will re-dress and re-level the yard area surface as needed. It is further understood that settlement beneath the tower section storage fixtures need only be limited such that the tower sections remain off the ground, while allowable differential settlement beneath the transition piece modular units is reportedly 3 inches.

## Proposed Grades

Finish floor elevation at each of the proposed buildings is 21.0 feet, which in general is several feet or more above existing site grades within the proposed building footprints. The approximate difference in elevation between existing site grades and proposed finished floor level at each building is summarized as follows:

Building	Approx. Existing Grade Elev. (ft)	Finished Floor Elev. (ft)	Difference Between Exist. Grade and Finished Floor (ft)
A	13 to 19	21.0	2 to 8 overall (but generally in the range of 6 to 8)
B	11 to 17	21.0	4 to 10 overall (but generally in the range of 8 to 10)
C	7 to 13	21.0	8 to 14 overall (but generally in the range of 10 to 12)
D	7 to 19	21.0	2 to 14 overall (but generally in the range of 2 to 4)

From the buildings and progressing eastward across the yard area, proposed grades slope gently toward the river at an inclination of about 3 percent or flatter, to elevations between about 13 and 16 feet. Both cuts and fills will be required in the yard area to establish finish grades, which are as much as 6 feet lower than existing grade in places, and in general up to about 8 feet higher than existing grade. New fill approaching 14 feet in thickness will be required in a limited area about Building D.

As previously noted, curbs will in general define the limits of the yard area, beyond which grades will slope down to the river (or creek as applicable), at inclinations typically between 1V:3H and 1V:4H. Additionally, a retaining wall is planned on the west side of Building C. The wall will be approximately 780 feet in total length, with retained height upwards of about 13 feet.

It is also our understanding that disturbance to the existing shoreline(s) is to be minimized so as to preserve existing trees and whatever visual screening from the waterways they provide.

## Retaining Walls

Plans call for a retaining wall on the west side of Building C. The wall will be approximately 780 feet in total length, with retained height upwards of about 13 feet. As currently envisioned this will be a mechanically stabilized earth (MSE) type wall.

## Exclusions

Finally, we note that incoming raw materials will initially be received at another site, this located at 700 Smith Boulevard in the currently developed portion of the Port. Plans at that location call for a 20,000 sq.ft. receiving and pre-assembly building (Building E), along with temporary storage of steel plates, flanges and miscellaneous items in an accompanying yard area. We have addressed Building E and the proposed bridge at the north end of Beacon Island in separate reports issued in January 2022.

This report does not address the proposed access road linking the subject site to River Road/NYS Route 144 or the proposed automobile parking areas west of the buildings at the subject site. We are currently awaiting authorization from National Grid to complete test borings in their right-of-way as a basis for evaluating the potential impacts of these features from a geotechnical standpoint and providing earthwork recommendations as appropriate.

If any of the above information is incorrect, please let us know so we can review the conclusions and recommendations provided in this report for applicability to the actual design and update the report as appropriate.

As the design of the project progresses and site grading plans and structural loads are fully developed, we should be retained to assess such additional information relative to the recommendations contained herein.

## SUBSURFACE CHARACTERIZATION

We have developed a general characterization of the subsurface conditions based upon our review of the subsurface exploration results (from this and previous studies), geologic setting and our understanding of the project. This characterization, termed GeoModel, forms the basis of our geotechnical analysis and evaluation of site preparation and foundation options. Conditions encountered at each exploration point are indicated on the individual subsurface logs. The logs can be found in the **Exploration Results** and the GeoModel in the **Figures** sections of this report.

### Subsurface Profile

The following model layers were identified within the subsurface profile. For a more detailed view of the model layers with depths at each boring location, refer to the GeoModel.

Model Layer	Layer Name	General Description
1	Fill	In general coal ash on the west side and south end of the site. Elsewhere sand, silt, gravel and/or clay in varying proportion, along with occasional organics and/or foreign material such as cinders, slag, brick, metal, wood.

<b>2</b>	<b>Alluvium</b>	Sand with lesser amounts of gravel, frequently intermixed or interbedded with silts and/or clays. Relatively minor amounts of organics common.
<b>3</b>	<b>Silt and Clay</b>	Glaciolacustrine silt and clay deposit.
<b>4</b>	<b>Glacial Till</b>	Fine sand and silt with embedded coarser sands, gravel, rock fragments. Some cobbles and boulders. Sometimes clayey.
<b>5</b>	<b>Bedrock</b>	Shale bedrock. Upper few feet relatively weathered.

Surface Materials and Fill Soils

Although generally somewhat brushy and/or wooded, topsoil was generally scarce in the coal ash disposal areas. Elsewhere, topsoil or forest mat was present at the ground surface at thicknesses between about 0.3 and 1.0 feet as indicated on the test pit logs. We note the indicated topsoil thicknesses should be regarded as a rough approximation only and should not be relied upon for construction quantity estimates; contractors are advised to make their own estimates or determination of topsoil thickness and quality for bidding purposes.

Beneath whatever surface organic materials were present, fill and/or suspected fill soils were found at most locations, extending to depths between about 3 to as much as 29 feet below existing grade. Coal ash was the most prevalent fill material as outlined below. Otherwise, the fills generally consisted of sand, silt, gravel and/or clay in varying proportion, along with occasional organics and/or foreign material such as cinders, slag, brick, metal and wood. Some of these materials likely represent river sediments, reworked native soils or dredge spoil. The relative density of the non-coal ash fill as indicated by measured SPT N-values was most often in the loose to medium dense range.

As has been described in the previously referenced reports, much of the filling on the site has occurred through the bulk placement of waste coal ash from the south adjoining power generating station. The plant was coal fired upon its construction in the early 1950s until about 1970, when its boilers were converted to use other fuels. Waste coal ash during the plant’s coal burning years was disposed of on the project site, primarily along the site’s west side and at its south end. The method of placement of the coal ash is unknown but is believed to have been transported in bulk and pushed/tracked into place as opposed to hydraulically placed. Relative density of the coal ash indicated by measured SPT N-values was typically very loose, and it was noted that some vibration of the ground was evident underfoot as a large tracked excavator traversed the ground surface in the coal ash area while moving from location to location in the course of excavating the test pits.

Laboratory testing of coal ash samples recovered from the site indicates it is comprised primarily of silt (66 to 76 percent by weight) and fine sand (19 to 27 percent) sized particles and classifies among the ML group using the Unified Soil Classification System (USCS). Coarser sand and clay size particles are present in trace amounts. Maximum dry density of the coal ash as determined by ASTM D1557 (modified Proctor) was between 61.8 and 64.2 pounds per cubic foot (pcf) with

optimum moisture content between 38.2 and 42.1 percent. These results are in keeping with what would be expected based on published accounts concerning the engineering properties of coal ash. Relatively minor amounts of organics were commonly noted in the ash fill as well, but overall the material was found to be rather consistent in composition.

It should be noted here that beneficial reuse of coal ash as a building material is not uncommon in the construction industry. In addition to its use as an additive in concrete, coal ash is generally regarded as suitable for construction of engineered structural fills for building sites, foundations and embankments, among other applications. Its usefulness as such is outlined in ASTM E2277, which cites low unit weight and relatively high shear strength, along with ease of handling and compaction as positive attributes of coal ash.

That said, the uncontrolled manner in which the material was placed is a concern as it relates to site development, and what follows herein should be viewed in this context. We regard the other miscellaneous fills and river sediments similarly (in the absence of gross debris, organics, or whatever otherwise unsuitable materials may be found). And despite the overall potential usefulness of coal ash as a fill material, the Ductile Iron Pipe Research Association (DIPRA) considers coal ash a known corrosive environment. Accordingly, the ash should be considered potentially aggressive to ductile iron piping systems and possibly other buried metallic pipes/elements placed within it.

Finally, while not found to be prevalent across the site, it should be understood that localized pockets of coarse, unsuitable debris may be present in places, as evidenced by buried railroad ties identified by Bergmann in the course of their 2017 study. The railroad ties were found at test pit TP-8 (located along the access road in southeast portion of site) between the depths of 8 and 12 feet below grade. Also note that fill materials and native soils were found to be similar in composition in places, rendering distinction between them difficult; the depth of fill as indicated on the logs should be considered approximate.

#### Alluvial Soils

Native soils beneath the existing fill materials were found to consist of alluvium, typically composed of sands with lesser amounts of gravel, frequently intermixed or interbedded with silt and/or clay. Relatively minor amounts of organics were commonly noted in these soils also. The alluvial soils extended to depths of about 25 to 55 feet (or as little as 20 feet at B-21-11) and exhibited a typically loose relative density. In the instances where the recovered soils were primarily fine-grained, their relative consistency was most often very soft.

#### Silt and Clay

Underlying the alluvium was a lacustrine silt and clay deposit which extended to depths of about 40 to 155 feet, generally increasing in depth to the east and more markedly to the south across the site. The silts and clays in this deposit were characteristically gray in color and very soft in relative consistency. Layers consisting primarily of silt were occasionally found therein. An

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exception to this is noted at borehole B-21-11, where no lacustrine soils were found between the alluvium and an unusually shallow glacial till deposit at a depth of 20 feet.

Laboratory testing performed on selected soil samples indicates that the gray silt and clay soils at this site are typically low to medium plasticity silts/clays categorized as CL or CL-ML in the USCS. A tabular summary of the most recent laboratory test results on these cohesive soils is provided below.

Boring/Test Pit ID	Depth (ft)	Natural Water Content (%)	Liquid Limit	Plasticity Index
B-21-7	60-62	26.4	NP	NP
B-21-17	40-42	30.5	31	12
B-21-18	35-37	35.5	33	11
B-21-20	40-42	33.2	31	11
B-21-23	110-112	20.6	23	6
TP-21-3	6-6.5	19.6	33	14
TP-21-7	3-3.5	18.9	33	12

As indicated in the table above, measured liquid limits ranged from 23 to 33 percent, and corresponding plasticity indices ranged from 6 to 14 percent. The natural moisture content of these soils ranged from 20.6 to 35.5 percent and was typically nearer the liquid limit in the deeper deposits. Laboratory testing results on the silt and clay deposit from previous studies have been similar. UU triaxial shear testing from previous studies also indicates its undrained shear strength is between about 580 and 640 psf.

Previous consolidation testing on the silt and clay deposit at the Beacon Island site and our experience with these Glacial Lake Albany lacustrine soils in the region indicate these deposits have been preconsolidated; that is, they have been subjected to stresses greater than current overburden pressures and have consolidated under these excess pressures. The preconsolidation is believed to be the result of a combination of stresses induced through desiccation, or drying, caused by the regional lowering of the water table during the geologic past and by loading from overburden soils which existed previously in the area but have since been eroded.

The available information indicates a net preconsolidation pressure of 4,000 psf or greater in the upper silt and clay; the net preconsolidation pressure and over-consolidation ratio (OCR) typically diminish with increasing depth. Previous cone penetrometer testing performed across the Beacon Island site indicates the OCR ranges from upwards of about 6 in the upper overburden soils to about 1.2 or less at depths greater than 100 feet. Undrained shear strengths of 500 to 750 psf are



typical for the gray Glacial Lake Albany silts and clays in the region, this consistent with the results of UU triaxial testing previously completed at the site as noted above.

### Glacial Till

Glacial till soils were found beneath the lacustrine silts and clays at most locations, although no till was encountered atop the underlying bedrock at boreholes B-21-10 and B-21-15. The till typically consisted of fine sand and silt (occasionally clayey) with embedded coarser sands, gravel and rock fragments, and was generally between about 3 and 12 feet in thickness (or as much as 22 feet thick at borehole B-21-17). Its relative density was most often in the dense to very dense range.

Cobbles and boulders are common in glacial till soils in the region and were frequently encountered in the till at this site as well. Note that the split spoon sampler employed in the SPT testing has an inside diameter of 1.375 inches which thereby limits recovery of coarser material and the extent to which coarser materials are represented in laboratory gradation testing. We also note that granular seams or layers within the till soils and at the till/bedrock interface may be more permeable than the surrounding soils and rock and may be under a slight artesian pressure.

### Bedrock

Bedrock was encountered at depths between 45 and 159 feet below the existing ground surface, generally increasing in depth to the east and more markedly to the south across the site. This correlates with a bedrock surface elevation in the range of about -34 to -143 feet (below MSL). Note that rock may also have been encountered (or nearly so) upon refusal of the drill tooling at a depth of 30.1 feet (approx. elevation -19 feet) in borehole B-21-11, although this was not confirmed through rock coring at this location.

The upper few feet of rock were typically relatively weathered. Confirmatory rock core sampling of the less weathered underlying rock in general revealed weak shale with very close to moderate joint, fracture and/or bedding spacing at a relatively high angle. Bands or layers of medium strong sandstone or graywacke were occasionally encountered, as were occasional siltstone seams and quartz veins. Rock quality designation (RQD) ranged from 8 (very poor) to 58 (fair) and averaged about 38 percent overall.

For information purposes, the Geologic Map of New York (New York State Education Department, 1970) maps bedrock underlying the project area as Normanskill shale with minor constituents of mudstone and sandstone, along with shale and graywacke of the Austin Glen Formation.

## **Groundwater Conditions**

Based on the recovery of wet soil samples and groundwater level measurements from this and previous investigations, groundwater in general appears to about 3 to 14 feet below the existing ground surface, this corresponding to groundwater elevations in the range of approximately 3 to 14 feet.

Mean high water in the Hudson River/Normanskill Creek is at an elevation of about 4 feet, and groundwater is in general expected at or near this level. A number of observation wells from previous investigations were observed on the site, and water level readings taken in these wells during this investigation tend to support this conclusion. Note however that these waters are tidal, normally within a range of about four to five feet, and tides are therefore expected to routinely affect water levels in and around the site. Information provided for our use indicates that extreme floodwaters may rise to about elevation 18 feet or more.

Additionally, as evidenced by some of the shallower observed water levels, locally perched or trapped groundwater may be present at times within the upper soils, particularly during seasonally wet periods and following heavy or extended periods of precipitation.

Groundwater elevations at the site should be expected to vary with seasonal fluctuations in precipitation and runoff, and with rising and falling water levels in the Hudson River. Tidal changes in the Hudson River are also expected to influence groundwater levels within a few hundred feet of shore to some degree daily. Additionally, grade adjustments on and around the site, surrounding drainage improvements and/or periodic flooding may also affect the water table.

## **GEOTECHNICAL OVERVIEW**

### **General Discussion**

In our opinion, the investigation completed at the project site revealed subsurface conditions that, with the exception of the coal ash fill, are typical along the Hudson River in the Albany area. The conditions are also generally consistent with those revealed through previous investigations at the site. The upper soils are composed of coal ash, miscellaneous fill and river sediments which are underlain by, in sequence with depth, alluvium, soft silt and clay, glacial till and ultimately shale bedrock. Groundwater is expected at or near the level of the river, or roughly 3 to 14 feet below existing site grades.

From a geotechnical standpoint, the site presents some challenges in the context of the proposed construction and planned heavy industrial loading. There are a number of factors which will impact on site development including:

- The bulk uncontrolled coal ash fill, along with other miscellaneous fills and river sediments
- Extensive cut and fill requirements
- Soft clays at depth which are subject to time-dependent consolidation settlement
- Weak subgrades relative to vehicular and material loading in yard area

Some key points for each of these factors are discussed in the following paragraphs, together with our recommended development approach.



It should be understood that the performance of the planned buildings and site features will ultimately be dependent upon successful implementation of the earthworks recommended herein. Retaining Terracon for construction period geotechnical observation, testing and consulting services will maintain continuity between the design and construction phases which can minimize risks and provide cost saving benefits to the Owner.

In general, the footprints of Buildings A, B and C are situated over the coal ash fill in their entirety, while miscellaneous fills consisting of sand, silt and clay with lesser amounts of foreign matter are present in the area of Building D. The uncontrolled coal ash fill, together with the other miscellaneous fills and river sediments, are not considered suitable for direct support of conventional shallow spread foundations and slab-on-grade construction. These materials offer marginal or unreliable bearing capacity and are subject to excessive post-construction settlement in the absence of some means to improve them.

To this end, we have evaluated a number of ground improvement methods in terms of their potential to enhance the bearing capacity and settlement characteristics of the existing fills and native deposits in-place, considering likely cost, impact to schedule and so on. These include deep dynamic compaction (DDC), rammed aggregate piers and soil mixing, along with full or partial undercuts and replacement. Each of these options was ultimately dismissed, either on the basis of technical feasibility or perceived benefit relative to time and expense. Additionally, note that none of these options would relieve the necessity to preload the building pads and allow time sufficient for consolidation settlement of the deep soft clays to occur, as outlined subsequently herein.

Taking into account that several feet of new fill is required to raise site grades beneath the buildings, and to the extent the proposed buildings and rail embedded slabs are not highly sensitive to settlement, consideration may be given to their support on unit mat type foundations, provided the mats are made sufficiently stiff to resist discrete concentrated loads beneath columns, rails, etc. and distribute these over broader areas of the mat. While all fills required to raise site grades should consist of suitable soils, we recommend the mats rest on no less than three feet of imported select structural fill to ensure the quality, uniformity and integrity of materials directly beneath the foundations.

The use of mat foundations will require preloading the building pads and exterior rail areas with the subgrade fill required to establish proposed grades, together with a surcharge approximating the average building live and dead loads the foundation subgrades will support. Doing so as a means of improvement will allow the underlying fills, river sediments and deep clays to consolidate under the weight of these loads and limit post-construction settlement. Plans should include a sufficient waiting period for the time-dependent settlement to occur, estimated at upwards of three to four months. To the extent possible, whatever filling is required in the yard area should also occur early in the construction schedule so as to limit post-construction settlements there.

It should be understood the mat foundation option is offered as a relatively cost-effective and expedient means of developing the site considering the rather poor soil conditions and proposed

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usage. Assuming the recommendations herein are adhered to, we expect that post-construction settlements will remain within tolerable levels and overall performance of the foundations and buildings will be satisfactory. That said, a good deal of uncertainty remains concerning what is or may be buried in the bulk uncontrolled fills across the site, and the owner and/or end user must be willing to accept some accompanying risk of excessive settlement in exchange for the benefit to cost and schedule represented by the mat option. If this uncertainty cannot be accepted, the buildings and slabs should be supported on end bearing steel piles driven to refusal on bedrock.

Similarly, to the extent existing fills are left in place beneath new pavements in the storage/staging yard area, the owner and/or end user must accept some degree of risk that excessive long-term settlements may occur. As previously indicated, buried railroad ties were disclosed in a test pit during a previous investigation, and this test pit was located in the currently proposed yard area. Heavy proof rolling of exposed subgrades as described herein will help to identify unsuitable subgrades and mitigate, but not eliminate, the risk of long-term settlement. An exceptionally heavy reinforced aggregate pavement section has been developed in consideration of the appreciable reach stacker, SPMT and material storage area loads, together with the marginal subgrade conditions which now exist.

Selective reuse of suitable onsite cut materials will be possible beneath building pads and yard areas, with some limitations as discussed in the **Earthwork** section herein. Whatever environmental considerations are involved with the handling and/or reuse of coal ash and/or other materials on the site are beyond the scope of this report and have been addressed in the Soil Management Plan by ATL (October 2020). Additionally, as previously indicated, the Ductile Iron Pipe Research Association (DIPRA) considers coal ash a known corrosive environment, and the ash should therefore be considered potentially aggressive to ductile iron piping systems and possibly other buried metallic pipes/elements placed within it.

Finally, limited vibration resulting from heavy equipment tracking across the ground surface was felt underfoot in the coal ash areas during the course of the investigation. It is possible a tendency for this to occur in association with heavy or reciprocating equipment will remain post-construction, in spite of the additional filling required to establish proposed grades. If the potential for such nuisance vibrations is perceived as a problem, this should be further studied by the end user and design team.

The following sections of this report provide more detailed recommendations to assist in planning for the geotechnical aspects of the project. We should be provided with the opportunity to review plans and specifications prior to their release for bidding to confirm that our recommendations were properly understood and implemented, and to allow us to refine our recommendations, if warranted, based upon the final design. The **General Comments** section provides an understanding of the report limitations.

## **SEISMIC CONSIDERATIONS**

The seismic design requirements for buildings and other structures are based on Seismic Design Category. Assignment of seismic Site Class is required to determine the Seismic Design Category for a structure. The Site Class is based on the upper 100 feet of the site profile defined by a weighted average value of either shear wave velocity, standard penetration resistance or undrained shear strength pursuant to Section 20.4 of ASCE 7 and the International Building Code (IBC).

### **Seismic Site Classification**

In our estimation, assignment of seismic Site Class D (stiff soil profile) for the project is justifiable. This determination is made based upon the results of shear wave velocity testing in seismic cone penetrometer tests previously completed at the site. Additional cone tests or geophysical testing may be performed to confirm this determination if desired.

### **Liquefaction**

An evaluation of the potential for soil liquefaction to occur was made using the computer software program Liquefy Pro by CivilTech Corporation. An earthquake magnitude of 6.0 was assumed, and a peak ground acceleration (PGA) of 0.09g for the project area was used, this representing a two percent probability of exceedance in 50 years (2,500 year return period, as obtained from USGS earthquake hazards mapping). Based on these parameters and site specific conditions determined through the subsurface investigation, the calculated factor of safety against liquefaction is greater than 1.2. As such, liquefaction potential at the project site is considered low. However, seismically induced ground surface settlements may occur over the general area, with those at the project site estimated to not exceed 0.5 inch.

## **EARTHWORK**

Earthwork is anticipated to include clearing and grubbing, stabilization of subgrade surfaces as necessary, bulk cuts and fills, preloading/surcharging the buildings pads, excavation for foundation construction and associated backfill. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include critical quality criteria as necessary to render the site in the state considered suitable in our geotechnical engineering evaluation for new foundations and aggregate-surfaced pavement sections.

Construction site safety is the sole responsibility of the contractor, who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety or the contractor's activities; such responsibility is neither implied nor shall it be inferred.

## **Site Preparation**

Site preparation should begin with stripping of existing topsoil and surficial organic matter as applicable from the new building and yard areas. Any remains of former structures or obviously unsuitable materials that may be found should also be removed.

Prior to placing fills to raise grades and/or after cuts are made to the plan subgrade elevations, the exposed grades should be heavily and thoroughly proof-rolled using a steel drum roller with a static weight of at least 10 tons. The roller should operate in its vibratory mode, unless requested otherwise by the Geotechnical Engineer observing the work, and travel at a speed not exceeding three feet per second (two miles per hour). The roller should complete at least eight passes over all subgrade surfaces (four each in opposing directions). The method of proof-rolling may be modified by the Geotechnical Engineer based upon the conditions revealed at the time of construction.

Soft areas identified by the proof-rolling should be investigated to determine the cause and stabilized accordingly. These investigations may include the excavation of test pits. If existing fills are found and determined by to be unsuitable by the Geotechnical Engineer, they should be removed and replaced as deemed necessary.

## **Settlement and Preloading**

Plans indicate about 2 to 14 feet of new fills are required to raise site grades in the building areas, this representing a net increase in load intensity of roughly 200 to 1800 psf on the underlying subgrades. Added to this will be the building and operational loads which we understand will be no greater than 600 psf when aggregated across a given building (or slab) footprint. In our estimation, new loads of this magnitude will result in stresses at depth which approach but do not exceed preconsolidation pressures in the deep clay deposit, limiting settlements in the clay deposit to those in the recompression range.

Settlements will occur throughout the existing fills and overburden soils in response these loads. In general, the degree of settlement is expected to vary with the height of fill required to establish proposed grades, but we estimate that maximum settlements will be between roughly 4 and 6 inches beneath the building pads. As these estimated settlements are beyond that which are considered typical and tolerable, a preloading and settlement monitoring plan targeted at limiting post-construction settlements should be implemented.

Development of a detailed preloading and settlement monitoring program is beyond the scope of this report. However, the basic elements of preloading include placement of new fill material to proposed grade levels, together with a surcharge fill which approximates (or exceeds, within limits) anticipated overall post construction loading. Instrumentation is installed to track the settlement that occurs over time. The plan should be implemented early in the construction schedule and sufficient time allowed such that these settlements are essentially complete prior to building construction and final grading.

In doing so, it is important the preload/surcharge load intensity matches or exceeds total post-construction grading, building and operational loads without exceeding preconsolidation pressures in the clay deposit. We expect this can be accomplished by placing a surcharge fill 6 to 7 feet in height across the building pads once the site is filled to the proposed finish floor elevation of 21.0 feet (i.e., top of surcharge elevation 27 to 28 feet). The surcharge should extend to this height, but no higher; if the preconsolidation pressure in the clays is exceeded (either through surcharging or operationally post-construction) both the magnitude of overall settlement and the time required for consolidation to occur will be greater than that estimated herein.

For preliminary planning purposes, we recommend that the full height of the temporary surcharge extend at least 10 feet outside the planned building footprints; the embankment side slopes of the temporary surcharge should be inclined no steeper than 1V:2H.

Material composition and compaction of fills placed to nominal finish floor elevation should be as described elsewhere herein. The temporary surcharge fill above finished floor level may consist of whatever material is most expedient, and may be simply tracked into place provided its in-place density is 100 pounds per cubic foot (pcf) or greater.

The required waiting period for settlement to occur will depend on the consolidation rate of the soils but we estimate the process will be substantially complete within a period between say 6 weeks and 3 to 4 months once the full height of fill and surcharge is in place. This should be understood and accommodated in developing the project schedule. Settlement in the fills and upper soils is expected to occur relatively quickly and in a semi-elastic manner as new loads are applied, whereas recompression settlement of the deep clays is expected to occur more slowly over the course of weeks and months.

Instrumentation in the form of conventional settlement plates and settlement systems with pressure transducers should be provided as part of the preloading and settlement monitoring program to allow the rate and total amount of settlement that occurs to be measured. Other instruments such as piezometers and inclinometers may be included in the preloading program as determined appropriate during its design.

For preliminary planning purposes, it should be assumed that a combination of at least 12 settlement plate and pressure transducer type settlement systems will be required across the building pads, their locations to be selected by this Geotechnical Engineer. The preloading and settlement monitoring program should be reviewed with the contractor and the settlement plates installed prior to any fill placement (but after the site has been stripped and proof-rolled).

Immediately upon installation of each settlement system, the top of plate elevation and any readout device panels should be determined and recorded as the starting grade or initial reference point, along with the elevation at the top of the first extension pipe for conventional systems. Following this, approximately 12 inches of fill should be placed and compacted over the plate to properly seat and secure the platform, and the instruments resurveyed. The instruments and panels should be clearly

marked and/or protected as necessary to prevent any disturbance or damage during construction activities.

When adding any subsequent extensions, the top of pipe elevation of the existing extension should first be obtained and recorded, and the top of pipe elevation of the new extension should be recorded immediately after being installed. Elevation data should be recorded and maintained such that the actual plate elevation can be referenced and determined at all times. Elevations should be obtained at each device at least twice weekly as the fill is being placed, and on a weekly basis thereafter during the hold period.

All survey monitoring should be performed under the supervision of a professional land surveyor, with elevations obtained to the nearest 0.01 foot and referenced to a consistent offsite benchmark(s) that is not susceptible to movement or damage over the monitoring period. Additionally, the elevation of the subgrade fill immediately adjacent to the instrument should also be obtained to the nearest 0.1 foot with each set of measurements.

The settlement system elevation should be determined for each measurement interval based on the survey data. The elevation of the subgrade fill at each monitoring interval should also be collected. Terracon should prepare a plot of relative movement (i.e., settlement) of the plate/system vs. time on an ongoing basis in order to allow interim evaluation of settlement conditions.

Careful monitoring of the instruments and whatever data is collected over the preload period will be necessary to determine the point at which recompression/consolidation settlement has essentially ended and building construction can begin. There is uncertainty in predicting both the magnitude of anticipated settlement and the time required for recompression settlement to occur, and this should be understood by all parties, thus the range in time planned for the holding period should be flexible. The preload and settlement monitoring program should be designed and monitored by this Geotechnical Engineer, who will determine the required duration and make interim evaluations of the results obtained therefrom.

### **Bulk Cut and Fill Considerations**

As a considerable amount of cut and fill will be required to establish proposed grades, economic site development will likely be dependent on the reuse of cut soils as new subgrade fill to raise site grades as necessary. Accordingly, the challenges and limitations associated with their reuse should be understood.

The onsite soils, in some cases, contain appreciable quantities of fine-grained silt and/or clay and will therefore require control of their as-compacted moisture content within narrow limits to achieve requisite in-place density as the material is placed. It may be necessary to either dry the soil in windrows or add water prior to placement and compaction depending on the prevailing weather conditions at the time of construction or the in-situ moisture content of the soils as they are excavated. Should site development proceed during seasonally wet or cold periods, it will likely be difficult to



adequately dry the siltier cut soils and it may be necessary to stabilize these soils with lime, fly ash or kiln dust, or to use an imported granular fill.

Topsoil, vegetation and other surface materials should be stripped from all cut/fill areas prior to earth moving operations. The subgrade fill should be firm and stable after it is placed and compacted, and should not “pump”, “weave” or otherwise exhibit instability during construction; soils should be undercut and replaced where unsatisfactory. The fill subgrades should also be properly graded, drained, sealed and/or protected from moisture and frost as necessary. Placement of fill over wet, soft, snow covered, or frozen subgrades should not be permitted. All bulk fill placement and compaction should be monitored and tested by a representative of the Geotechnical Engineer on a full-time basis.

Where new fills are required to raise site grades, some difficulty may be experienced in achieving proper compaction of the fill soils considering the existing unimproved subgrades. This may be of particular difficulty in lower, wetter portions of the site, or where the filling is attempted with cut soils of lesser quality. It may therefore be necessary to begin the new fills using better quality imported granular material for the initial one or two lifts. Consideration may also be given to placing an initial layer of oversize stone (e.g., surge stone or shot rock, with a maximum 8 inch particle size) to displace excessively loose or wet soils and establish a firm base from which to continue. Other methods of subgrade improvement which may be considered include the use of reinforcement with dry granular material and geogrids or soil modification with admixtures as noted above.

Based on the findings of the subsurface investigation, bulk cuts across the site are not expected to encounter a generalized groundwater condition. However, perched groundwater may be intercepted in places, possibly necessitating the construction of fabric lined and stone filled drainage trenches to relieve, collect and dispose of such waters.

### **Fill Material Types**

As indicated above, it may be assumed that excavated onsite soils will in general be suitable for reuse in fill areas once cleansed of any oversized particles, unsuitable debris or organics, subject to the approval of the Geotechnical Engineer and based upon the conditions encountered at the time of construction. Cut soils essentially free of organics, debris or particles >6 inches in size may be considered suitable fill and placed in common fill areas throughout the site, but no closer than three feet from the bottom of any mat foundation. Excessively silty or clayey materials should not be used as a source of fill within yard areas, though may be considered for placement under mat foundation areas if spread in thin (say less than 8 inch) lifts. Unsuitable materials should be wasted offsite or in landscaped areas.

Material imported for general use should consist of well-graded sand or sand and gravel which meets the requirements stipulated for Select Granular Fill in section 733-11 of the NYSDOT Standard Specifications for Construction and Materials.

We recommend that mat foundations be supported on no less than three feet of imported select structural fill to ensure the quality, uniformity and integrity of materials directly beneath the buildings and exterior rails. Designated select structural fill should consist of an imported processed sand and gravel or crusher-run stone which meets the requirements stipulated for Type 2 or 4 Subbase material in section 304 of the NYSDOT Standard Specifications.

### **Fill Compaction Requirements**

Fills beneath the building pads and pavements should be placed in uniform loose layers no more than about one-foot thick where heavy vibratory compaction equipment is used. Thinner lifts should be used as necessary where hand operated equipment is required for compaction. Each lift should be compacted to no less than 95 percent of its maximum dry density as determined by the Modified Proctor Compaction Test – ASTM D1557, and moisture content of the material being placed should be maintained within +/- 3 percent of its optimum moisture content. In landscape areas, the compaction requirement may be relaxed to 90 percent of maximum dry density.

### **Grading and Drainage**

All grades should provide effective drainage away from the buildings during and after construction, with such drainage maintained throughout the life of the structures. Water retained next to buildings can result in soil movements greater than those outlined in this report, which may in turn lead to unsatisfactory differential floor slab and/or foundation displacements, cracked slabs and walls, or roof leaks.

### **Temporary Excavations**

Excavations must be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P and its appendices, along with any state and local codes, as applicable. The contractor should be aware that slope height, slope inclination, and excavation depth should in no instance exceed OSHA regulations. Flatter slopes than those stipulated by the regulations or temporary shoring may be required depending upon the soil/groundwater conditions encountered and other external factors. OSHA regulations are strictly enforced and if they are not followed, the owner, contractor, and/or earthwork and utility subcontractor could be liable and subject to substantial penalties.

### **Construction Observation and Testing**

The earthwork efforts should be monitored under the direction of this Geotechnical Engineer. Monitoring should include documentation of adequate removal of topsoil and unsuitable fills, proof-rolling, and evaluation of foundation and yard area subgrades. If unanticipated conditions are encountered, this Geotechnical Engineer should prescribe mitigation options. Each lift of new compacted fill should be tested, evaluated, and reworked, as necessary, until approved by this Geotechnical Engineer prior to placement of additional lifts.



Foundation bearing grades and subgrades for floor slabs, pavements and concrete pads should also be evaluated under the direction of this Geotechnical Engineer. If unanticipated conditions are encountered, this Geotechnical Engineer should prescribe mitigation options.

It should be understood that subsurface conditions will be more fully known when the site is excavated. The continuation of this Geotechnical Engineer's services into the construction phase of the project and their continuous observations during earthwork and foundation construction will allow for validation of the subsurface conditions assumed to exist for this study and in the development of the design recommendations in this report, along with assessing any variations, providing interim recommendations as necessary and reviewing any associated design changes.

## **MAT FOUNDATIONS**

### **Foundation Design Parameters**

Over the course of this study, we were furnished with load distribution diagrams quantifying contact pressure beneath the mat foundations at selected column locations considering both building and operational loads. These diagrams indicate that load intensity may range upwards of about 2,500 to 3,500 psf over limited areas no greater than about 10 x 20 feet with the mat configured as currently planned. The diagrams further indicate that load intensity dissipates from the loaded areas such that contact pressure at the limits of a mat area measuring about 40 x 80 feet in plan dimension does not exceed about 1,500 psf. As previously noted, we understand that gross loading on the mats aggregated across the total floor area does not exceed 600 psf.

In view of the above, we expect the limiting pre-consolidation pressure within the deep lacustrine soils will not be exceeded and thus settlements will be controlled by recompression. Under these parameters, we estimate that post-construction mat settlements across the site will not exceed 1 to 2 inches. As mat design progresses, and other load cases are developed, they should be provided to us for review to determine whether these other loadings cause imposed stresses to exceed the pre-consolidation stress within the deep lacustrine soils.

The mat foundations should be constructed on a minimum three feet of select structural fill, over subgrades which have been prepared, preloaded and surcharged as described herein. Provided this is so, an effective modulus of subgrade reaction of 50 pounds per cubic inch (pci or psi/in) may be assumed at the top of the select structural fill layer.

Differential settlement across the mats will depend, in part, on their rigidity. We caution that differential settlements may occur due to non-uniform loading conditions both during and after the completion of construction. The mats must be designed, as needed, to accommodate the varying loading conditions and settlements. Preferably, construction should proceed such that differential loading is not created across the mats. When available, we should review the construction sequence

and actual load distributions expected across the mats to refine the settlement estimates and evaluate differential settlement concerns.

Utilities, where they connect with the buildings, should be designed to accommodate the expected settlements. Within the buildings, the utilities should be placed within chaseways built into the mats for access. The utilities should not be planned or constructed either within or below the mats.

Frost protection at the perimeter of buildings or in unheated portions thereof should be provided by seating foundations four feet or greater below surrounding grades, or through the use of an appropriate frost protected shallow foundation (FPSF) detail.

### **Mat Foundation Construction Considerations**

The foundations should be seated directly on at least three feet of imported select structural fill, which is itself placed over subgrades prepared as described herein. All final bearing grades should be firm, stable, and free of loose soil, mud, water and frost. This Geotechnical Engineer should approve the condition of the foundation bearing grades immediately prior to placement of reinforcing steel and concrete.

### **SERVICE PITS**

As previously indicated, one or more service pits up to 8 feet in depth (this corresponding with approximately elevation 13 feet) will be included in Buildings A and C. With floodwaters expected to rise upwards of elevation 18 feet, elevated groundwater may subject the pits to uplift pressures (buoyancy). Some means should therefore be incorporated to resist uplift, whether this be through self-weight of the pits, base extensions or some other method. Adequate waterproofing measures should also be provided.

Otherwise, the pits should be equipped with an open sump and pump system, with the pumps designed to dewater a specified volume that would be dependent upon the flood elevation, soil medium surrounding the pits, and the actual plan dimensions and depths of the pits.

Note that the pit walls should be designed to resist lateral earth pressures as outlined below.

### **RETAINING WALLS**

The parameters given below are provided to analyze internal and external stability of the wall system and should be suitable for preliminary design purposes. We note however that the MSE retaining wall planned west of Building C will apparently be situated on the loose coal ash fills and will therefore be subject to settlement concerns similar to the buildings. While we expect the wall foundation subgrades can be improved through preloading as described elsewhere herein, it should be understood that the full height of the preload must in this case extend laterally to at

least 5 feet beyond the planned wall face, with the preload embankment side slope temporarily extending beyond the wall. The preload materials would then need to be removed from the retaining wall area and the wall system and its reinforcing constructed following the preload program. If this is not feasible or possible, consideration should be given to a different type of wall system more tolerant to settlement that can be built in conjunction with the site fills (as noted below).

The wall reinforcement system should also be considered in conjunction with overall site design. Based on the anticipated coal ash subgrades upon which the wall will be situated, we expect that satisfying global stability concerns will ultimately be a controlling factor in design. Reinforcement geogrid lengths upwards of 20 to 30 feet or more may be necessary depending on the wall system chosen, and the sequencing of geogrid installation with fills required to raise site grades should be coordinated as appropriate. In our estimation, a Geosynthetic Reinforced Soil System (GRSS) type wall is better suited to the expected site conditions as compared with the MSE type wall currently under consideration. GRSS walls are more tolerant to settlement and thus could be built in conjunction with the fills to raise site grades. Wall design would be a subsequent service that we should provide.

All earth-retaining walls should be designed to resist the lateral pressures generated by earth backfill and any temporary or permanent surcharge loads. The following design parameters are provided to assist in calculating lateral earth pressures and analyze wall stability as applicable:

- Soil angle of internal friction - 30 degrees
- Coefficient of At-Rest earth pressure ( $k_o$ ) - 0.50
- Coefficient of Active earth pressure ( $k_a$ ) - 0.33
- Coefficient of Passive earth pressure ( $k_p$ ) - 3.00
- Total unit weight of compacted soil - 130 pcf

The recommended design parameters assume that the backfill consists of imported select granular or structural fill as outlined in the **Earthwork** section herein and that the backfill remains permanently well-drained. Water must not be allowed to collect against the wall unless the wall is designed to accommodate the added hydrostatic pressure. Use of excavated site soils for wall backfill should be avoided. The parameters are also based on idealized non-sloping conditions on each side of the wall and should be considered preliminary subject to review when grades are finalized. Where slopes are present either in front of or behind the walls, the coefficients of lateral earth pressure must be adjusted accordingly.

## **SHORELINE AND SLOPE STABILITY**

An evaluation of global shoreline stability was made at several selected sections along the banks of the Hudson River and Normanskill in consideration of the proposed grading and loading

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conditions, including the heavy transport vehicles. A total of five sections were evaluated, three along the river and two along the creek.

In developing each section, existing and proposed topography was taken from the site plans furnished to us, and the subsurface profile was compiled from information as revealed by the test borings and test pits. A uniform surcharge load for the material staging and/or equipment loadings was assumed based on the loading information provided, and was applied on the inside of the curb line indicated on the plans.

The slope and foundation geometries were analyzed by inputting data from the inferred subsurface profiles into the global stability evaluation software, SLOPE/W by Geo-Slope International, Ltd. Typical engineering properties for the soils were selected based upon the laboratory testing completed for this and previous studies together with our local experience. Groundwater conditions were modeled two ways: one considering the nominal static conditions encountered during our subsurface investigations, and another emulating rapid drawdown conditions as may occur after a flood event.

Under these parameters, the factor of safety against global failure of the shoreline was generally determined to be satisfactory (1.3 or greater). Typical industry standard targets a minimum factor of safety of 1.3, or 1.5 for critical structures.

However, a vulnerability to rotational slope failure was identified where concentrated loads are applied in close proximity to descending slopes. We therefore recommend that a minimum distance of 25 feet be maintained between concentrated loads (staged materials, reach stackers and SPMTs, etc.) and the crest of descending slopes.

Additionally, it was found that slopes along the shoreline are in general marginally stable against shallow, surficial type failures in the event of rapid water level drawdown as may occur following a flooding event. If armoring of the shoreline slopes to enhance their surficial stability is not a regulatory preferable solution, the prompt repair of any shallow failures will be required should a triggering flood event occur. Failure to address these surficial sloughs could result in propagation of the failures, potentially impacting greater portions of the slope and eventually upland yard areas.

It should be understood that stability of the soil slope, approach embankment and foundation geometries were modeled under the conditions outlined herein. Changes in feature location, geometry or grading, along with erosion or natural events can impact global stability. We should be retained to perform additional analyses and consulting as the final plans are developed.

Finally, we note that in general, any permanent cuts or embankment fills along the waterways should be sloped no steeper than one vertical on three horizontal (1V:3H). Steeper slopes may be considered on a case-by-case basis. All slopes should be vegetated, armored with riprap or otherwise protected against erosion as appropriate.

## YARD AREA PAVEMENTS

Our design parameters assume the existing fills will be left in place and stabilized as detailed in the **Earthwork** section of this report. The owner must accept some degree of risk for excessive pavement settlement or failure if the existing fills are left in place. As previously indicated, whatever filling is required in the yard area should occur early in the construction schedule so as to limit post-construction settlements.

### Reach Stacker and SPMT Use

The gravel-surface pavement section presented below was developed in conjunction with Tensar, primarily in consideration of the outsize reach stacker and SPMT loads that will traverse the site. PCASE software and assumed parameters based on the findings of our investigation were used in its development. We understand the end user acknowledges some rutting, aggregate kick-out and/or settlement of the aggregate surface will occur over time, and that they will periodically re-dress and re-level the yard area surface as needed in the course of their operations.

Except where noted and as applicable, all materials should meet the requirements specified in the latest edition of the New York State Department of Transportation (NYSDOT) Standard Specifications for Construction and Materials.

Reinforced Aggregate-Surface Pavement Design			
Layer	Description	NYSDOT Reference	Thickness (inches)
1	Surface Aggregate	Section 733-04, Type 2	12
2	Base Aggregate	Section 733-04, Type 2 (or AASHTO #57 blend)	18
3	Geogrid	Section 737-07 (Tensar NX850 or equal)	Single ply
4	Base Aggregate	Section 733-04, Type 2 (or AASHTO #57 blend)	18
5	Geogrid	Section 737-07 (Tensar NX850 or equal)	Single ply
6	Non-woven Separation/ Drainage Geotextile	Table 737-01C	Single ply

Construction of the yard area pavement section and the reinforced approach embankment section at the bridge should be coordinated to ensure proper overlap and to ensure that placed geogrids/geotextiles are not damaged in the course of utility installation. The geogrid should be

installed per the manufacturer's specifications, with prescribed overlap at seams, unless detailed otherwise.

### **Tower Section and Transition Piece Storage**

The pavement section listed above should be provided throughout the storage yard area and anywhere that reach stackers or SPMTs will move about.

As outlined previously herein, plans call for the tower sections to be stored/staged horizontally on moveable storage fixtures, one on each end. Each fixture is to have two bearing plates which will bear on the storage yard's gravel surface. With each plate 20 sq.ft. in plan area, this results in a unit contact pressure upwards of 22,000 psf as currently planned.

While it is understood that settlement beneath the tower section storage fixtures need only be limited such that the tower sections remain off the ground, such settlements should be maintained within practical limits to avoid excessive tensile stresses in the geogrid reinforcement, which may result in damage to or failure of the grid and pavement system. To this end, we recommend the bearing plates be proportioned such that their contact pressure is limited to about 10,000 psf or less when bearing on the gravel pavement surface.

It is understood the transition pieces are to be staged in a vertical position, on modular jersey barrier-like units approximately 4.1 feet wide at their base and 32.8 to 45.9 feet in length. Each transition piece is to be supported on three of these units, and based on the information provided, we estimate that contact pressures at the base of the units bearing on the yard's gravel surface will be between 3,300 psf and 4,700 psf. We expect that differential settlement beneath these units will be maintained within the reported tolerable limit of 3 inches provided that loads do not exceed those indicated and are applied uniformly as shown. Nevertheless, we recommend that settlement beneath the transition pieces stored vertically be carefully monitored upon initial loading due to the uncertainty associated with the underlying previously filled subgrades.

### **GENERAL COMMENTS**

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

## Geotechnical Engineering Report

Proposed Marmen Manufacturing Facility ■ Port of Albany, New York

February 4, 2022 ■ Terracon Project No. JB215020



Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements and design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

## FIGURES

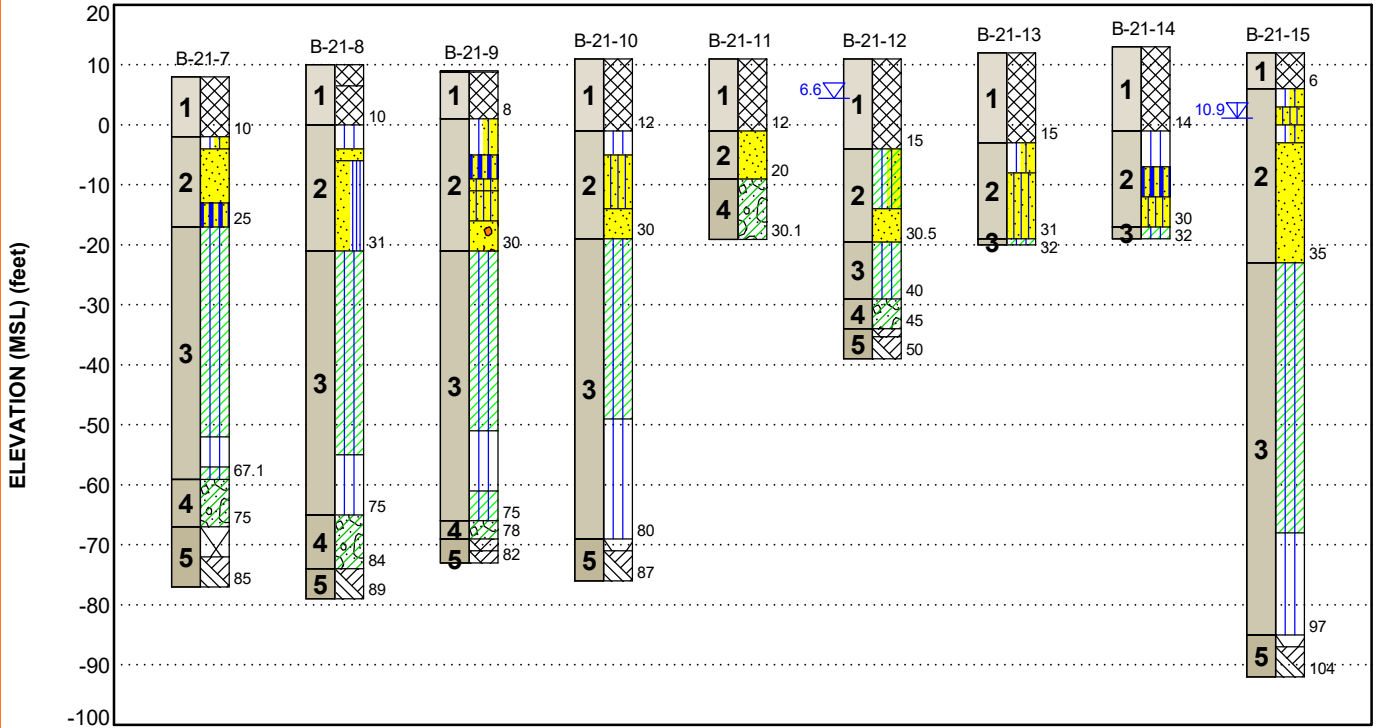
### Contents:

GeoModel (4 pages)



**GEOMODEL**

Proposed Marmen Manufacturing Facility ■ Glenmont, NY  
Terracon Project No. JB215020



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Fill	In general coal ash on the west side and south end of the site. Elsewhere sand, silt, gravel and/or clay in varying proportion, along with occasional org. and/or foreign matter
2	Alluvium	Sand with lesser amounts of gravel, frequently intermixed or interbedded with silts and/or clays. Relatively minor amounts of organics common.
3	Silt and Clay	Glaciolacustrine silt and clay deposit.
4	Glacial Till	Fine sand and silt with embedded coarser sands, gravel, rock fragments. Some cobbles and boulders. Sometimes clayey.
5	Bedrock	Shale bedrock. Upper few feet relatively weathered.

**LEGEND**

- Fill
- Sandy Silt
- Glacial Till
- Poorly-graded Sand with Silt
- Weathered Rock
- Topsoil
- Poorly-graded Sand with Gravel
- Silty Clay
- Bedrock
- Silty Sand
- Silty Clay with Sand

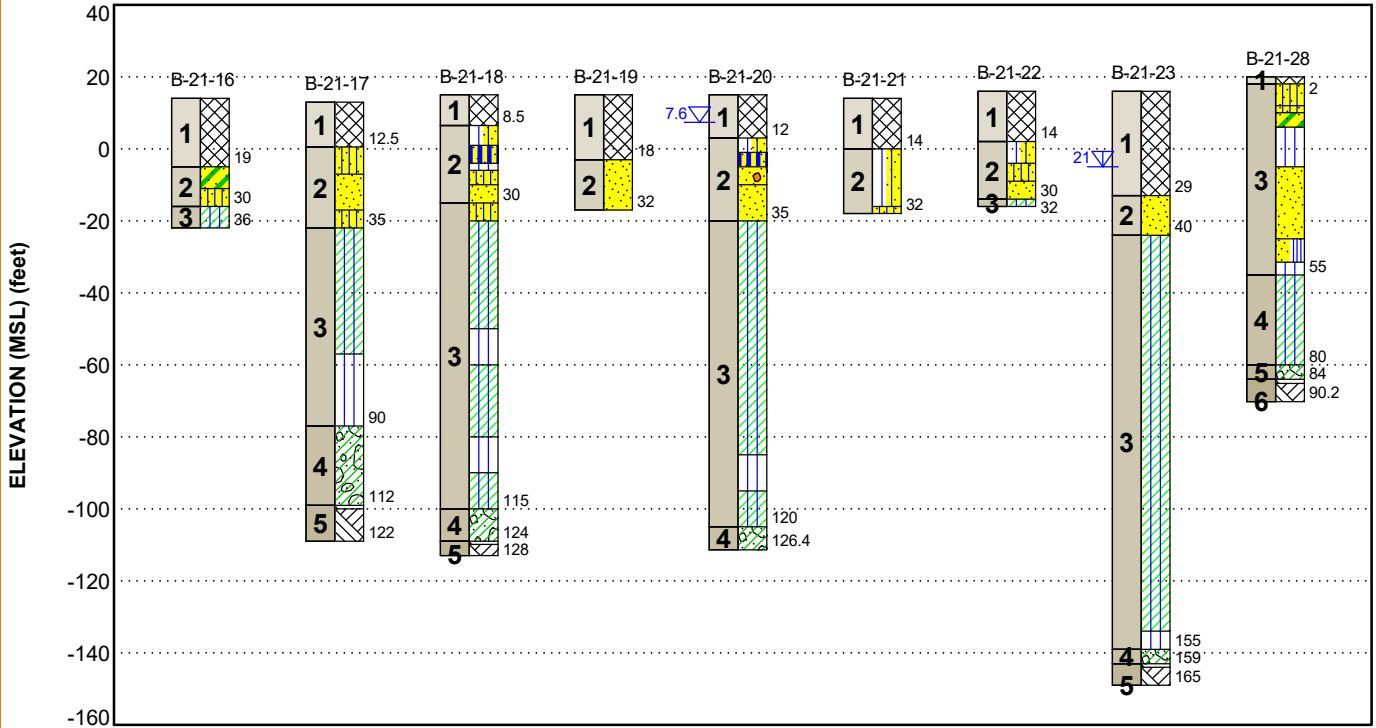
- First Water Observation
- Second Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time. Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

**NOTES:**  
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project. Numbers adjacent to soil column indicate depth below ground surface.

**GEOMODEL**

Proposed Marmen Manufacturing Facility ■ Glenmont, NY  
Terracon Project No. JB215020



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**LEGEND**

- ☒ Fill
- ▨ Silty Clay
- ▨ Glacial Till
- ▨ Silty Sand
- ▨ Silty Sand
- ▨ Poorly-graded Sand
- ▨ Weathered Rock
- ▨ Poorly-graded Sand with Silt
- ▨ Silty Sand
- ▨ Silt
- ▨ Bedrock
- ▨ Poorly-graded Sand with Gravel
- ▨ Poorly-graded Sand with Silt

- ▽ First Water Observation
- ▽ Second Water Observation

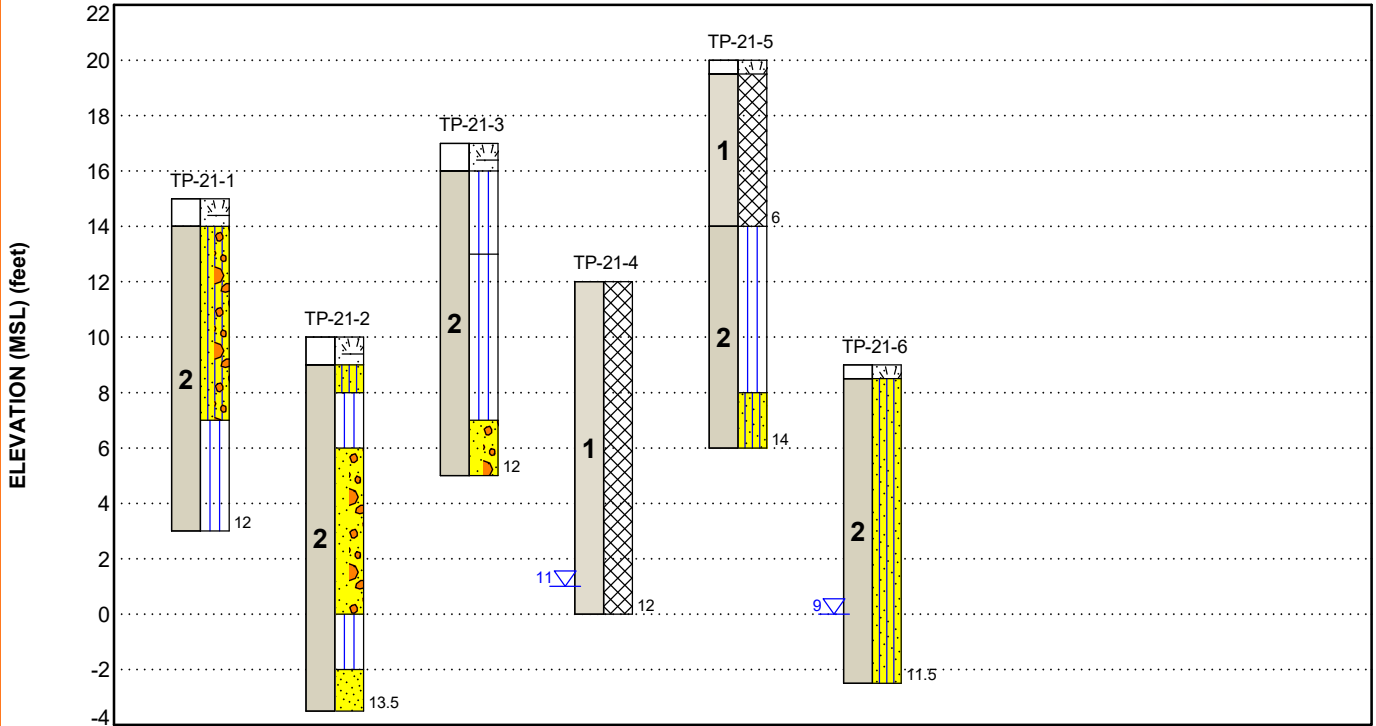
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**GEOMODEL**

Proposed Marmen Manufacturing Facility ■ Glenmont, NY  
Terracon Project No. JB215020



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5	Bedrock	Shale bedrock. Upper few feet relatively weathered.

**LEGEND**

- Topsoil
- Silty Sand
- Fill
- Silty Sand with Gravel
- Poorly-graded Sand with Gravel
- Silt
- Poorly-graded Sand

- First Water Observation
- Second Water Observation

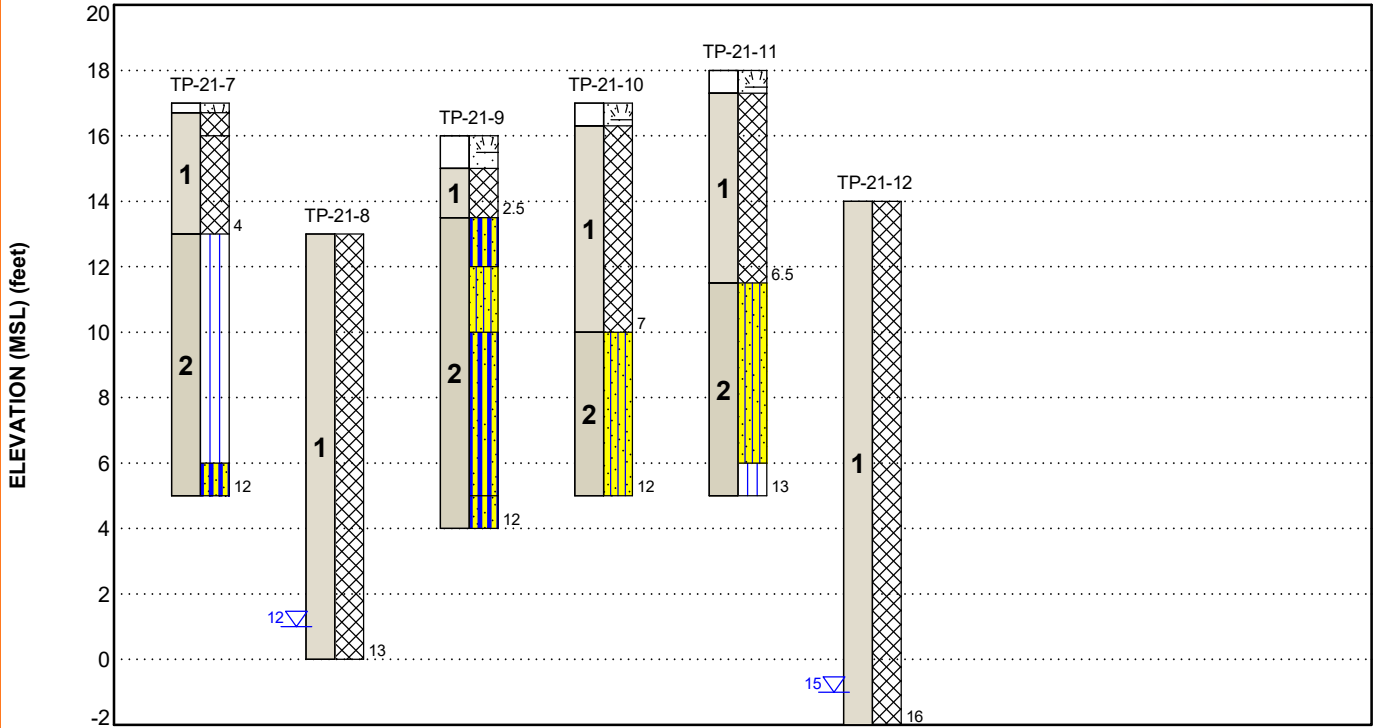
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**GEOMODEL**

Proposed Marmen Manufacturing Facility ■ Glenmont, NY  
 Terracon Project No. JB215020



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**LEGEND**

- Topsoil
- Sandy Silt
- Fill
- Silty Sand
- Silt

- First Water Observation
- Second Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time. Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

**NOTES:**

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## ATTACHMENTS

## EXPLORATION AND TESTING PROCEDURES

### Field Exploration

Boring Nos.	Boring Depth (feet)	Location
B-21-7 thru B-21-23, B-21-28	30.1 to 165.0	Proposed building footprints

Test Pit Nos.	Test Pit Depth (feet)	Location
TP-1 thru TP-12	11.5 to 16	Proposed building footprints and yard area

**Test Location Layout and Elevations:** The test boring and test pit locations were selected on the basis of the preliminary plant layout provided to us and were established in the field by Terracon using a hand-held GPS unit, taped measurements and/or visual reference from existing site features. The boreholes and test pits were located as planned, within the limitations of access, existing structures and/or utilities.

Ground surface elevation at each borehole/test pit location was estimated based upon our interpolation between topographic contours shown on the site plans provided to us. If more precise locations and/or elevations are desired, the as-completed test locations should be surveyed.

**Subsurface Exploration Procedures:** The test borings were made using a standard rotary drill rig equipped with hollow-stem augers, flush-joint casing and rock core tooling. As the borehole was advanced, the soils were generally sampled at intervals of five feet or less in accordance with the Standard Method for Penetration Test and Split-Barrel Sampling of Soils, ASTM D1586. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon is driven into the ground by a 140-pound automatic hammer falling 30-inches. The number of blows required to advance the sampling spoon the middle 12-inches of a normal 24-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the subsurface logs at the corresponding test depths.

A total of three undisturbed Shelby tube samples were taken (or attempted) in the silt and clay (or otherwise soft subgrade soils) as indicated on the boring logs.

Upon meeting refusal, the refusal material was typically cored to allow its characterization. The coring was completed in general accordance with ASTM D2113 – Standard Practice for Rock Core Drilling and Sampling of Rock for Site Investigation using an NQ-size double tube core barrel.

The boreholes were backfilled with auger cuttings and/or sand upon their completion.

## Geotechnical Engineering Report

Proposed Marmen Manufacturing Facility ■ Port of Albany, New York  
February 4, 2022 ■ Terracon Project No. JB215020



Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials encountered during drilling and our interpretation of the subsurface conditions between samples. The sampling depths, penetration distances, and other sampling information were recorded on the field boring logs.

The soil and rock core samples were placed in appropriate containers and taken to our soils laboratory for visual classification by a geologist or geotechnical engineer. The soils were described based on the material's color, texture and plasticity in general accord with the Unified Soil Classification System (USCS) as summarized herein. Rock classification was conducted using locally accepted practices for engineering purposes; petrographic analysis may reveal other rock types. Final individual boring logs were prepared, and they represent the Geotechnical Engineer's interpretation of the field logs and include modifications as appropriate based on observations and/or testing of the samples in our laboratory.

The test pits were excavated using a track excavator and observed by a geotechnical engineer from our office. The soils at the test pit locations were classified as the excavations were made and were logged as described above. Upon the completion of each test pit, the excavation was methodically backfilled in lifts, with each lift tamped with the excavator bucket.

The subsurface logs for the test borings and test pits are presented herein, along with a summary sheet and key which explains the terms and symbols used in their preparation.

## Laboratory Testing

Selected recovered samples from the test borings were submitted for laboratory testing as part of the subsurface investigation, to confirm the visual classifications and to provide quantitative index properties for use in the geotechnical evaluation. This testing was performed in general accordance with the following standard methods:

- ASTM D2216 - Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil - and Rock by Mass (35 samples tested)
- ASTM D422 - Standard Test Method for Particle-Size Analysis of Soils (w/o hydrometer) (16 samples tested)
- ASTM D422 - Standard Test Method for Particle-Size Analysis of Soils (w/ hydrometer) (8 samples tested)
- ASTM D4318 - Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils (7 samples tested)
- ASTM D2974 - Standard Test Methods for Determining the Water (Moisture) Content, Ash Content, and Organic Material of Peat and Other Organic Soils (4 samples tested)

## Geotechnical Engineering Report

Proposed Marmen Manufacturing Facility ■ Port of Albany, New York

February 4, 2022 ■ Terracon Project No. JB215020



- ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (4 samples tested)



## **SITE LOCATION AND EXPLORATION PLANS**

### **Contents:**

Site Location Plan

Exploration Plan

Note: All attachments are one page unless noted above



**SITE LOCATION**

Proposed Marmen Manufacturing Facility ■ Glenmont, NY  
February 2022 ■ Terracon Project No. JB215020

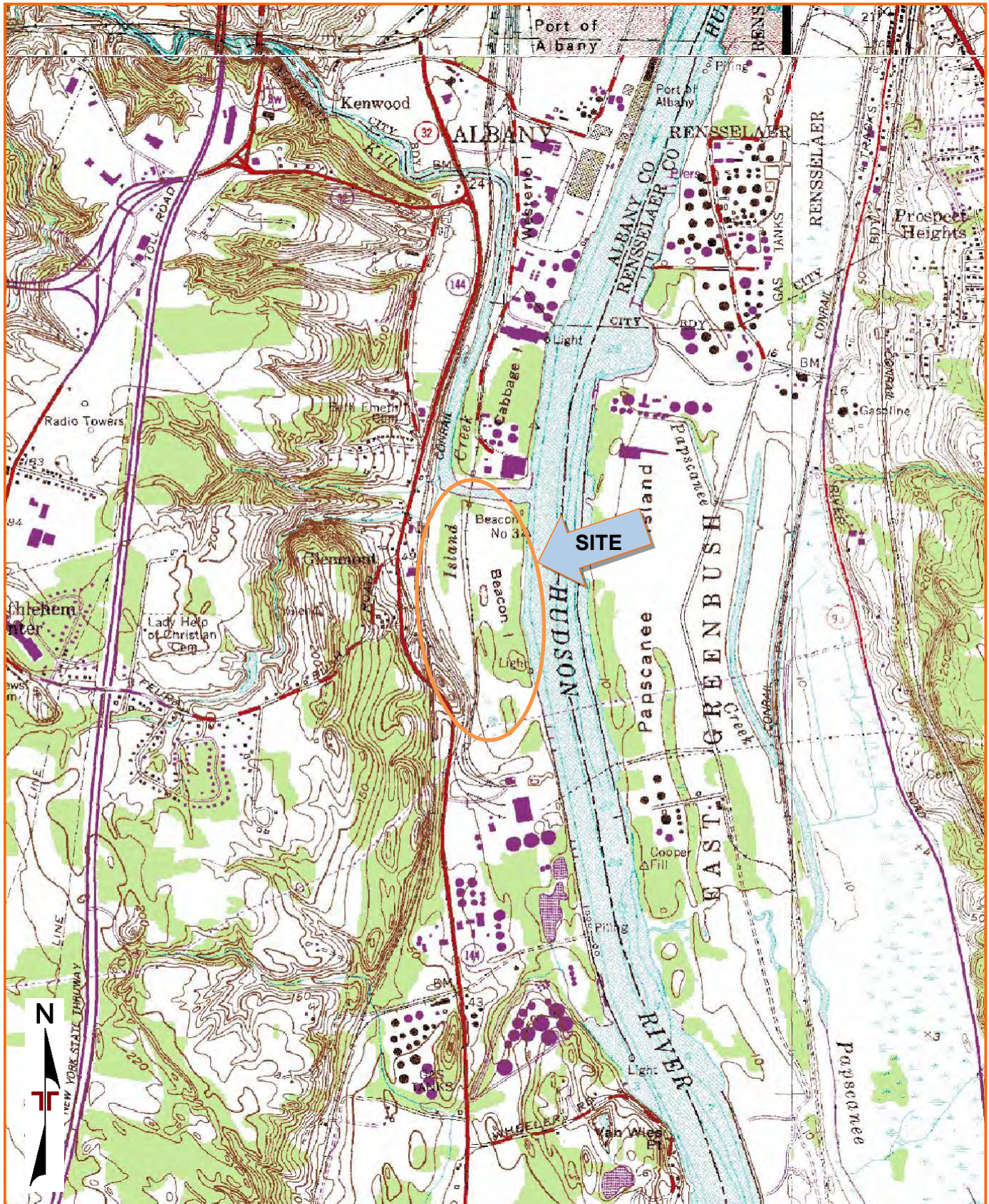


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY  
QUADRANGLES INCLUDE: ALBANY, NY (1/1/1994), TROY SOUTH, NY (1/1/1980),  
DELMAR, NY (1/1/1980) and EAST GREENBUSH, NY (1/1/1980).



EXPLORATION PLAN  
 MARMEN MANUFACTURING FACILITY  
 BEACON ISLAND  
 PORT OF ALBANY, NEW YORK  
 TERRACON PROJECT No. JB215020  
 FEBRUARY 2022



**McFarland Johnson**  
 60 RAILROAD PLACE  
 SUITE 402  
 SARATOGA SPRINGS, NEW YORK 12866  
 P:518-580-9380 F:518-580-9383  
 SaratogaROM@mjinc.com

PROJECT MILESTONE  
 CONCEPT PLANS

NO.	DATE	DESCRIPTION

CLIENT:  
**ALBANY PORT DISTRICT COMMISSION**  
 ALBANY, NEW YORK

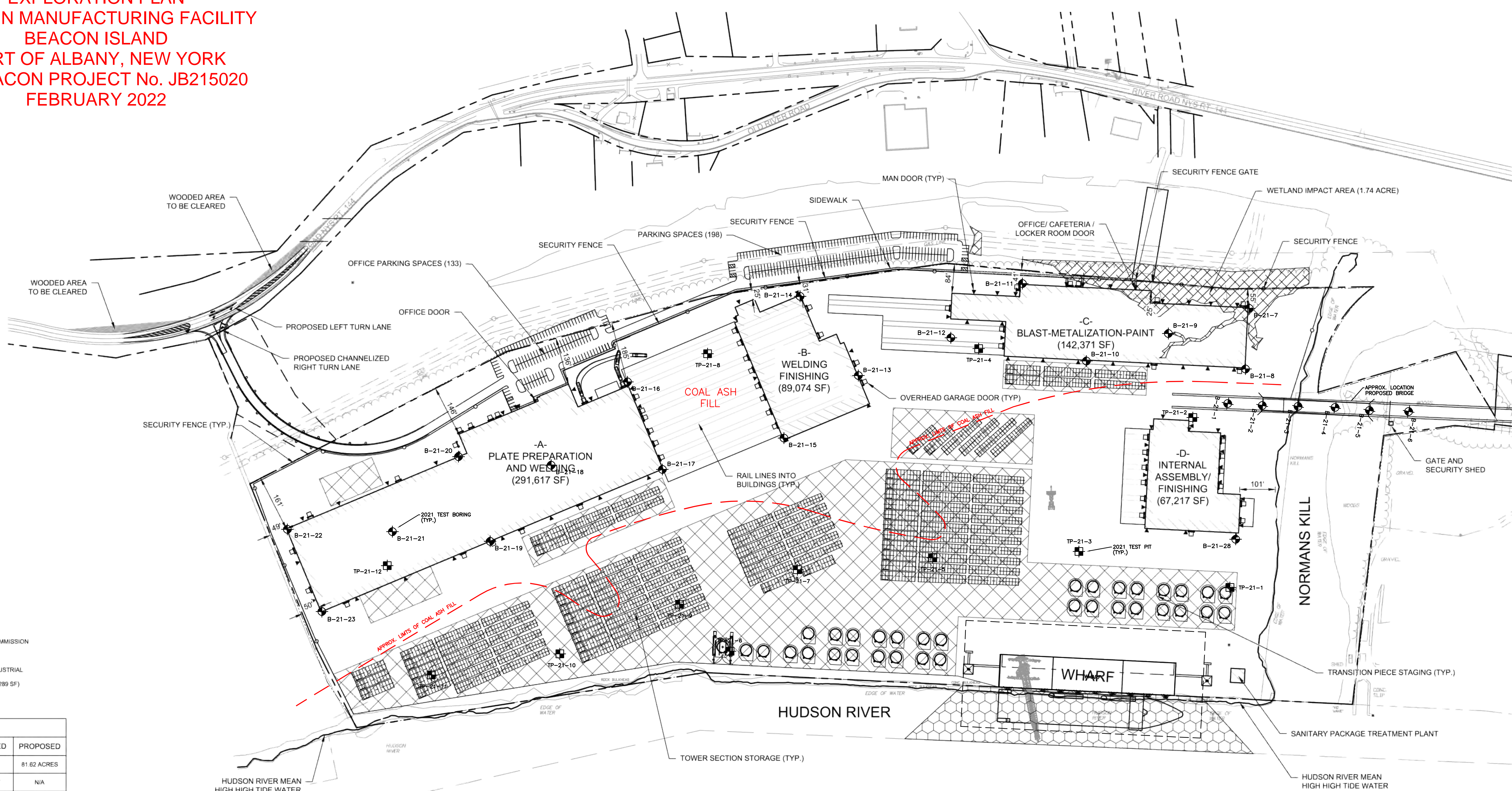
PROJECT:  
**PORT OF ALBANY EXPANSION**

DRAWN	JES
DESIGNED	AJF
CHECKED	AJF
SCALE	1"=40'
DATE	MAY 2021
PROJECT	18641.00

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE  
**GENERAL LAYOUT PLAN**

DRAWING NUMBER  
**SP-00**  
 --- OF 7



- PROJECT DATA**
1. APPLICANT / LAND OWNER:  
ALBANY PORT DISTRICT COMMISSION  
106 SMITH BOULEVARDS  
ALBANY, NEW YORK 12205
  2. EXISTING ZONING: HEAVY INDUSTRIAL
  3. LOT AREA: 81.62 ACRES (3,555,289 SF)
  4. BUILDING HEIGHT: 85 FT

SITE DATA		
FEATURE	REQUIRED	PROPOSED
MINIMUM LOT SIZE, NONRESIDENTIAL	5 ACRES	81.62 ACRES
MINIMUM FRONT YARD, FROM RIGHT-OF-WAY	100 FEET	N/A
MINIMUM FRONT YARD, FROM CENTER LINE	125 FEET	308 FEET
MINIMUM SIDE YARD	25 FEET	308 FEET
MINIMUM REAR YARD	50 FEET	753 FEET
MINIMUM HIGHWAY FRONTAGE	150 FEET	2140 FEET
MAXIMUM HEIGHT	LESSER OF 4 STORIES OR 80 FEET	85 FEET*
MINIMUM LOT DEPTH	200 FEET	2850 FEET
MINIMUM LOT WIDTH	150 FEET	757 FEET
MAXIMUM LOT COVERAGE	30%	16.6%

\*WILL REQUEST A VARIANCE

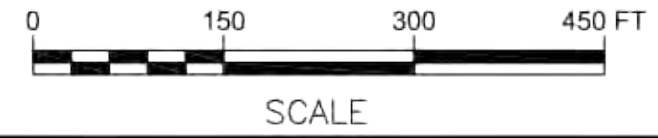
**ZONING:**  
 EXISTING: ±81.62 ACRES HEAVY INDUSTRIAL  
 PROPOSED: ±81.62 ACRES HEAVY INDUSTRIAL  
 TAX ACCOUNT NUMBERS: 98.00-2-10.23  
 98.01-2-1

**PARKING:**  
 1 SPACE FOR EACH 2 EMPLOYEES ON MAXIMUM WORKING SHIFT.  
 TOTAL EMPLOYEES = 350  
 REQUIRED: 175 TOTAL SPACES REQUIRED  
 PROVIDED: CAR PARKING 331 SPACES PROVIDED  
 331 TOTAL SPACES PROVIDED

**ADA SPACES REQUIRED:**  
 PER 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN  
 REQUIRED (331 SPACE LOT): 9 SPACES  
 PROVIDED (331 SPACE LOT): 9 SPACES

**LEGEND**

PROPERTY LINE	---	PROPOSED BUILDING FOOTPRINT	▭
BUILDING SETBACK	- - - -	MATERIAL STORAGE AREAS	▧
EXISTING RAIL LINE		WETLAND IMPACT AREAS	▨
EXISTING TREE LINE	~~~~~	WHARF DREDGING AREA	▩
DITCH CENTERLINE	---		
ROADSIDE SWALE	- - -		
OVERHEAD DOORS	▭		
MAN DOORS	◀		





## **EXPLORATION RESULTS**

### **Contents:**

Test Boring and Test Pit Logs (47 pages)

Laboratory Test Results (26 pages)

Note: All attachments are one page unless noted above

# BORING LOG NO. B-21-7

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6070° Longitude: -73.7673°  Approximate Surface Elev.: 8 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<b>FILL - COAL ASH</b> , dark gray, moist to wet, very loose				18	1-1-1-1 N=2		
						22	1-1/12"-1 N=1		
			5			21	WH/24"		
						24	WH/24"		
						24	WH/24"		
			10			22	WH/24"		
						22	WH/12"-2-4 N=2		
			15			19	2-3-2-3 N=5		
						19	WH/12"-3-2 N=3		
			20			22	WH/12"-4-3 N=4		
2		<b>SILT WITH SAND (ML)</b> , seams of organics and fine to medium sand, gray to brown, wet, very soft  <b>POORLY GRADED SAND (SP)</b> , occasional gray silty sand seams, fine to coarse grained, brown, wet, very loose to loose  Grades with trace gravel							
			10.0	-2+/-					
			12.0	-4+/-					
			21.0	-13+/-					
			25.0	-17+/-					
3		<b>SANDY SILT (ML)</b> , with bands of clay, gray, wet, soft  <b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft to soft  Grades to varved silt and clay from about 30-35'							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 80', NQ core barrel to 85'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

**Notes:**  
Logged by: JCH  
WH = Weight of Hammer  
WR = Weight of Rods

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 06-28-2021

Boring Completed: 06-28-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-7

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

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		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft to soft <i>(continued)</i>	50		24		WR/24"		
3			55		22		WR/18"-WH		
		<b>SILT (ML)</b> , trace clay, gray, wet, soft	60.0		6		3-2-2-2 N=4		26.4
		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft	65.0		24		WR/12"-WH/12"		
		<b>SILTY GRAVEL (GM)</b> , frequent cobbles and boulders, gray, wet, dense, (GLACIAL TILL) Difficult rollerbit advancement noted at about 67.1'	67.1		5		47-17-16-17 N=33		
4			75.0		1		50/2"		
		<b>WEATHERED SHALE</b>	80.0		37		REC=62% RQD=8%		
5		<b>SHALE</b> , gray, moderately weathered with occasional 1-2" thick completely weathered bands, very close to close fracture spacing with high angle joints and bedding, very poor RQD <b>Graywacke layer from about 83-83.5'</b> Frequent siltstone lenses from 83.5-85' <b>Boring Terminated at 85 Feet</b>	85.0						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 80', NQ core barrel to 85'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 06-28-2021

Boring Completed: 06-28-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-8

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6070° Longitude: -73.7667°  Approximate Surface Elev.: 10 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<b>FILL - SILT WITH SAND (ML)</b> , occasional clay seams, trace roots and organic seams, gray, moist, medium stiff	3.5			20	2-4-4-4 N=8		22.8
		<b>FILL - COAL ASH</b> , fine to medium grained, dark gray, moist to wet, very loose to loose	6.5+/-			19	4-4-5-6 N=9		
			10.0			17	2-2-1-1 N=3		
						18	WH/12"-2-2 N=2		
2		<b>SILT (ML)</b> , little organics, gray, wet, very soft <b>Grades to pieces of wood, gray to brown at 10.5'</b> <b>Grades to occasional fine to medium sand and clay seams</b>	0+/-			24	WH/24"	13.5	53.4
		<b>POORLY GRADED SAND (SP)</b> , trace silt, fine to medium grained, brown, wet, very loose	-4+/-			24	WH/24"		
			-6+/-			18	WH/12"-2-2 N=2		
		<b>POORLY GRADED SAND WITH SILT (SP-SM)</b> , fine to medium grained, brown, wet, loose				24	2-2-2-2 N=4		
						24	WH-2-2-2 N=4		
						22	2-3-4-5 N=7		
3		<b>Grades to trace gravel</b>	-21+/-			20	2-3-6-4 N=9		26.8
		<b>VARVED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft to stiff				24	WH/24"		
						24	WH/24"		
						24	WH/24"		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 84', NQ core barrel to 89'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

**Notes:**  
Logged by: JCH  
WH = Weight of Hammer  
WR = Weight of Rods

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 07-07-2021

Boring Completed: 07-09-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-8

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6070° Longitude: -73.7667°  Approximate Surface Elev.: 10 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
3		<p><b>VARVED SILT AND CLAY (CL-ML)</b>, gray, wet, very soft to stiff <i>(continued)</i></p> <p style="text-align: center;">Grades to banded silt and clay</p>	50		24		WH/24"		
			55		24		WR/12"-WH/12"		
			60		24		WR/24"		
		65.0	65		24		WR/12"-5-5 N=5		
		<p><b>SILT (ML)</b>, occasional clay bands and fine sand partings, gray, wet, medium stiff to stiff</p>	70		7		5-5-7-7 N=12		
		75.0	75		22		WH-7-16-17 N=23		
4		<p><b>CLAYEY GRAVEL WITH SAND (GC)</b>, gray, wet, medium dense to dense, (GLACIAL TILL)</p>	80		19		6-11-22-26 N=33		
		84.0	85		58		REC=97% RQD= 47%		
5		<p><b>SHALE</b>, gray, occasional quartz veins, slightly weathered, weak, close to moderate fracture spacing with high angle joints and fractures, poor RQD</p>	89.0						
		<b>Boring Terminated at 89 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 84', NQ core barrel to 89'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 07-07-2021

Boring Completed: 07-09-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL - JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21



# BORING LOG NO. B-21-9

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6064° Longitude: -73.7671°  Approximate Surface Elev.: 9 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>DEPTH</b>							
1		<b>TOPSOIL</b> <b>FILL - COAL ASH</b> , dark gray, moist to wet, very loose  Little organics noted	0.2 / 9+/-			4	WH/24"		
			5			22	WH/24"		
			5			1	WH/24"		
			5			19	WH/24"		
			10			24	WH/24"		
			10			22	WH/24"		
			10			24	WH/24"		
			15			19	WH/24"		
			15			24	WH/24"		
2		<b>SILT WITH SAND (ML)</b> , little organics, gray to brown, wet, very soft  Fine to medium grained sand lenses from about 10 to 14'	8.0 / 1+/-			24	WH/24"		
			14.0 / -5+/-			24	WH/24"		
			14.0 / -5+/-			19	WH/24"		
			18.0 / -9+/-			24	WH/24"		
			18.0 / -9+/-			18	WH/18"-2		
			20.0 / -11+/-			21	2-1-1/12" N=1		
			20.0 / -11+/-						
			25.0 / -16+/-			21	4-5-4-5 N=9		
			25.0 / -16+/-						
			30.0 / -21+/-			24	WH/24"		
3		<b>POORLY GRADED SAND WITH GRAVEL (SP)</b> , trace silt, fine to coarse grained, brown, wet, loose  <b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft	30.0 / -21+/-			24	WH/24"		
			35			24	WH/24"		
			40			22	WH/24"		
			45			24	WH/24"		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 78', NQ core barrel to 82'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

**Notes:**  
Logged by: JCH  
WH = Weight of Hammer  
WR = Weight of Rods

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 07-29-2021

Boring Completed: 07-29-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-9

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6064° Longitude: -73.7671°  Approximate Surface Elev.: 9 (Ft.) +/- DEPTH ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft ( <i>continued</i> )	50				WR/12"-WH/12"		
			55				WR/18"-WH		
3		<b>SILT (ML)</b> , occasional clay bands, gray, wet, very soft to medium stiff	60.0				6-4-3-1 N=7		
		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft	70.0				WH/24"		
4		<b>CLAYEY GRAVEL WITH SAND (GC)</b> , occasional cobbles and boulders, gray, wet, very dense, (GLACIAL TILL)	75.0			4	50/4"		
5		<b>SANDSTONE</b> , gray, slightly weathered, medium strong, moderate fracture spacing with high angle joints and fractures, fair RQD	80.0				REC=88% RQD=58%		
		<b>SHALE</b> , with quartz veins, gray, slightly weathered, weak rock, very close to close fracture spacing with high angle joints and fractures, fair RQD	82.0						
		<b>Boring Terminated at 82 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 78', NQ core barrel to 82'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 07-29-2021

Boring Completed: 07-29-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# BORING LOG NO. B-21-10

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6057° Longitude: -73.7668°  Approximate Surface Elev.: 11 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<b>FILL - COAL ASH</b> , dark gray, moist to wet, very loose				18	1-1-2-1 N=3	8.2	46.7
		Trace rootlets noted				12	1/12"-1/12" N=1		
		Little organics noted				5	WH/24"		
						2	WH/24"		
						22	WH/24"		
						24	WH/24"		
						24	WH/24"		
						18	WH/18"-1		
						24	1-2-2-3 N=4		
						21	2-2-2-2 N=4		
2		<b>SILT (ML)</b> , little organics, occasional sand lenses, brown, wet, very soft <b>Aquatic shells encountered at about 13'</b>	12.0 -1+/-					8.2	46.7
		<b>SILTY SAND (SM)</b> , trace organics, fine to medium grained, gray to brown, wet, loose	16.0 -5+/-						
		<b>POORLY GRADED SAND (SP)</b> , trace gravel, fine to medium grained, brown, loose	25.0 -14+/-						
3		<b>VARVED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft	30.0 -19+/-					8.2	46.7

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 82', NQ core barrel to 87'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

**Notes:**  
Logged by: JCH  
WH = Weight of Hammer  
WR = Weight of Rods

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 08-25-2021

Boring Completed: 08-25-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-10

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6057° Longitude: -73.7668°  Approximate Surface Elev.: 11 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>VARVED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft ( <i>continued</i> )  <b>Grades to banded silt and clay</b>	50		X	24	WH/24"		
			55						
		<b>SILT (ML)</b> , occasional clay bands, gray, wet, very soft to medium stiff	60.0		X	24	WH/24"		
			65						
			70		X	24	3-2-3-5 N=5		
			75						
		<b>PROBABLE WEATHERED ROCK</b>	80.0		X	2	50/2"		
		<b>SHALE</b> , frequent siltstone lenses and occasional quartz veins, slightly weathered (highly weathered 82 to 82.4' and 85.2 to 85.8'), weak rock, close to moderate fracture spacing with high angle joints, fair RQD	82.0						
			85		X	60	REC=100% RQD=56%		
		<b>Boring Terminated at 87 Feet</b>	87.0						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 82', NQ core barrel to 87'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 08-25-2021

Boring Completed: 08-25-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# BORING LOG NO. B-21-11

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6052° Longitude: -73.7676°  Approximate Surface Elev.: 11 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<b>FILL - COAL ASH</b> , dark gray, moist to wet, very loose  Little organics noted	12.0			1	WH/24"		
						1	WH/24"		
						22	WH/24"		
						24	WH/24"		
						24	WH/24"		
						22	WH/24"		
2		<b>POORLY GRADED SAND (SP)</b> , trace silt seams and trace organics, fine to medium grained, gray to brown, wet, very loose	20.0			21	WH/12"-2-2 N=2		
						17	WH-2-1-1 N=3		
						19	2-2-1-2 N=3		
4		<b>SILTY SAND WITH GRAVEL (SM)</b> , occasional cobbles and boulders, gray, wet, very dense, (GLACIAL TILL)	30.1			7	29-50/2"		
						1	50/1"		
		<b>Sampler Refusal at 30.1 Feet</b>				1	50/1"		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 30'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Logged by: JCH  
WH = Weight of Hammer

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 09-01-2021

Boring Completed: 09-01-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-12

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL\_JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6047° Longitude: -73.7670°  Approximate Surface Elev.: 11 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<b>FILL - COAL ASH</b> , dark gray, moist to wet, very loose  Trace rootlets noted  Little organics noted	15.0	▽		18	1-1-2-1 N=3		
						21	1-1-1-1 N=2		
						24	1-1/12"-1 N=1		
						12	1/24"		
						19	WH/24"		
						19	WH/18"-2		
						10	WH/24"		
						24	WH/24"		
2		<b>SILTY CLAY WITH SAND (CL-ML)</b> , trace to little organics, gray to brown, wet, very soft	25.0			22	WH/24"		
						13	3-3-2-2 N=5		
						21	4-2-2-2 N=4		
3		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, soft	30.5			24	4-2-1-1 N=3		
						2	50/2"		
4		<b>CLAYEY SAND WITH GRAVEL (SC)</b> , frequent cobbles and boulders, gray, wet, very dense, (GLACIAL TILL)	40.0						
5		<b>SHALE</b> , with frequent siltstone lenses and quartz veins, gray to black, slightly weathered, weak rock, very close fracture spacing with high angle joints/fractures, poor RQD	46.3			50	REC=83%		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 45', NQ core barrel to 50'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
Logged by: JCH  
WH = Weight of Hammer

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

▽ 6.6' after 8-10' sample

Boring Started: 08-31-2021

Boring Completed: 08-31-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020



# BORING LOG NO. B-21-12

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6047° Longitude: -73.7670°  Approximate Surface Elev.: 11 (Ft.) +/- DEPTH _____ ELEVATION (Ft.) _____	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
5		<p><b>GRAYWACKE</b>, fine-grained, gray to black, slightly weathered, medium strong, moderate fracture spacing with high angle joints/fractures, poor RQD (<i>continued</i>)</p> <p><b>Boring Terminated at 50 Feet</b></p>	50				RQD=38%		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 45', NQ core barrel to 50'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

6.6' after 8-10' sample

Boring Started: 08-31-2021

Boring Completed: 08-31-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020



THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# BORING LOG NO. B-21-13

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6039° Longitude: -73.7666°  Approximate Surface Elev.: 12 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<p><b>FILL - COAL ASH</b>, trace rootlets, dark gray, moist to wet, very loose</p> <p>Little wood/organics noted</p>	15.0		X	4	WH-1-2-1 N=3		
			-3+/-		X	22	1-1-1-1 N=2		
					X	21	WH/24"		
					X	24	WH/24"		
					X	24	WH/24"		
					X	21	1-1/12"-1 N=1		
					X	19	WH/24"		
2		<p><b>SILT WITH SAND (ML)</b>, little organics, gray to brown, wet, very soft</p> <p><b>SILTY SAND (SM)</b>, trace organics, fine to medium grained, gray, wet, very loose to loose</p> <p>Grades to trace gravel at about 25'</p>	20.0		X	18	1-1/12"-1 N=1		
			-8+/-						
					X	17	WH-3-2-2 N=5		
					X	21	4-3-2-2 N=5		
3		<p><b>BANDED SILT AND CLAY (CL-ML)</b>, gray, wet, soft</p> <p><b>Boring Terminated at 32 Feet</b></p>	31.0						
			-19+/-						
			-20+/-						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 30'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
Logged by: JCH  
WH = Weight of Hammer

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 09-07-2021

Boring Completed: 09-07-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020



# BORING LOG NO. B-21-14

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6035° Longitude: -73.7675°  Approximate Surface Elev.: 13 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<b>FILL - COAL ASH</b> , trace rootlets, dark gray, moist to wet, very loose	14.0			1	WH/18"-1		
						2	1-1-1-1 N=2		
						0	WH/18"-1		
						17	WH/24"		
						24	WH/24"		
						7	WH-1-1/12" N=1		
						18	WH/24"		
						22	WH/24"		
2		<b>SILT (ML)</b> , with clay, trace sand, little organics, gray, wet, very soft	20.0			14	WH/18"-2		
		<b>SANDY SILT (ML)</b> , trace organics, brown to gray, wet, very soft	25.0			19	2-2-2-3 N=4		
		<b>SILTY SAND (SM)</b> , fine to medium grained, gray, wet, loose	30.0			24	3-2-2-3 N=4		
3		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, soft	32.0						
		<b>Boring Terminated at 32 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 30'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Logged by: JCH  
WH = Weight of Hammer

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 09-07-2021

Boring Completed: 09-07-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-15

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6034° Longitude: -73.7660°  Approximate Surface Elev.: 12 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<b>FILL - COAL ASH</b> , dark gray, moist to wet, very loose	6.0			10	WH/24"		
			6+/-			14	WH/24"		
2		<b>SILT WITH SAND (ML)</b> , some organics, gray to brown, moist, very soft to soft	9.0			13	WH-1-1/12" N=1		
			3+/-			22	1-2-2-2 N=4		
			12.0			24	WH/24"		
			0+/-		▽	18	WH/24"		
			15.0			22	WH/24"		
			-3+/-			21	3-3-3-3 N=6		
						18	2-3-2-2 N=5		
3		<b>POORLY GRADED SAND (SP)</b> , trace silt bands, fine to medium grained, brown, wet, loose to medium dense	20			19	4-4-6-8 N=10		
			25			19	4-3-4-6 N=7		
			35.0			24	WH/24"		
		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft	-23+/-			24	WH/24"		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 99', NQ core barrel to 104'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:  
Logged by: JCH  
WH = Weight of Hammer  
WR = Weight of Rods

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

▽ 10.9' after weekend with drillhead at 35'



Boring Started: 08-18-2021

Boring Completed: 08-18-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-15

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6034° Longitude: -73.7660°  Approximate Surface Elev.: 12 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft ( <i>continued</i> )	50		X	24	WR/12"-WH/12"		
		Grades to varved	55						
		Grades to banded	60		X	24	WR/24"		
			65						
			70		X	6	WR/24"		
			75						
			80		X	24	7-7-5-7 N=12		
		<b>SILT (ML)</b> , trace rootlets, occasional clay bands, gray, wet, soft to stiff	85						
			90		X	24	WH/12"-1-1 N=1		
			95						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 99', NQ core barrel to 104'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

10.9' after weekend with drillhead at 35'



Boring Started: 08-18-2021

Boring Completed: 08-18-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020


THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# BORING LOG NO. B-21-15

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6034° Longitude: -73.7660°  Approximate Surface Elev.: 12 (Ft.) +/-	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
3		DEPTH ELEVATION (Ft.)							
		97.0 -85+/-							
		<b>WEATHERED ROCK</b>							
		99.0 -87+/-							
5		<b>SHALE and GRAYWACKE</b> , alternating bands (approx. 6-12" thick) of shale and graywacke, gray, slightly weathered, weak to medium-strong, very close to moderate fracture spacing with high angle joints, poor RQD	100			0	50/0"		
		104.0 -92+/-				48	REC=80% RQD=47%		
		<b>Boring Terminated at 104 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 99', NQ core barrel to 104'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

 10.9' after weekend with drillhead at 35'



Boring Started: 08-18-2021

Boring Completed: 08-18-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# BORING LOG NO. B-21-16

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION <small>See Exploration Plan</small> Latitude: 42.6021° Longitude: -73.7666°	DEPTH Approximate Surface Elev.: 14 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<b>FILL - COAL ASH</b> , trace rootlets, dark gray, moist to wet, very loose		19.0		X	19	1-1-2-1 N=3		
				-5+/-		X	18	1-1-1-1 N=2		
				25.0		X	22	1-1-1-1 N=2		
				-11+/-		X	24	WH/12"-1-1 N=1		
				30.0		X	24	WH/24"		
				-16+/-		X	18	1-1/18"		
				36.0		X	13	WH/24"		
-22+/-		X	22	WH/24"						
2		<b>CLAYEY SAND (SC)</b> , fine to coarse grained sand with clay bands, brown, wet, very loose		25.0		X	18	2-2-1-1 N=3		
				-5+/-		X	19	2-3-3-4 N=6		
				30.0		X	24	WH/24"		
3		<b>SILTY SAND (SM)</b> , trace gravel, fine to medium grained, gray, wet, loose		30.0		X	0			
				-11+/-		X	15			
				36.0						
		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft								
Boring Terminated at 36 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 32'

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

Notes:

Logged by: JCH  
WH = Weight of Hammer

**WATER LEVEL OBSERVATIONS**

*Groundwater measurements not obtained as water was used for borehole advancement*



30 Corporate Cir Ste 201  
Albany, NY

Boring Started: 09-08-2021

Drill Rig: Diedrich D-50

Project No.: JB215020

Boring Completed: 09-08-2021

Driller: S. Morey

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# BORING LOG NO. B-21-17

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6024° Longitude: -73.7657°  Approximate Surface Elev.: 13 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<b>FILL - COAL ASH</b> , dark gray, moist to wet, very loose to loose	12.5			0	2-3-3-5 N=6		
						10	2-1-2-2 N=3		
						13	2-1-1-1 N=2		
						21	WH/24"		
						18	WR-WH/18"		
						22	WH/24"		
						22	WH/24"		
						24	WH/12"-4-2 N=4		
						24	4-4-6-6 N=10		
					0.5+/-				
2		<b>SILTY SAND (SM)</b> , little organics, gray to brown, wet, very loose to medium dense  <b>Grades to trace gravel</b>	20.0			22	WH/24"		
						24	WH/12"-4-2 N=4		
						24	4-4-6-6 N=10		
						21	3-3-3-3 N=6		
			20						
			25			19	3-4-5-7 N=9		20.3
			30.0			19	4-4-4-4 N=8		
			35.0			24	WH/24"		
						24	WH/24"		30.5
			45						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 112', NQ core barrel thru boulder seam 90 to 105'. NQ core barrel to 122'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

**Notes:**  
Logged by: JCH  
WH = Weight of Hammer  
WR = Weight of Rods

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 08-11-2021

Boring Completed: 08-11-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-17

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6024° Longitude: -73.7657°  Approximate Surface Elev.: 13 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>VARVED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft ( <i>continued</i> )  Grades to banded	50		X	24	WR/12"-WH/12"		
			55						
			60		X	24	WH/24"		
			65						
3			70		X	24	WR/18"-WH		
		<b>SILT (ML)</b> , occasional clay bands, gray, wet, very soft to soft	75						
			80		X	24	4-1-1-12 N=2		17.5
			85						
			90		X	0	50/0"		
4		<b>CLAYEY SAND WITH GRAVEL (SC)</b> , occasional to frequent cobbles and boulders, gray <b>Hard sampler refusal at about 90', cored through frequent cobble and boulder seams in the glacial till from about 90 to 105'</b>	95		X	60	REC=100%		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 112', NQ core barrel thru boulder seam 90 to 105'. NQ core barrel to 122'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 08-11-2021

Boring Completed: 08-11-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-17

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6024° Longitude: -73.7657°  Approximate Surface Elev.: 13 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
4		<b>CLAYEY SAND WITH GRAVEL (SC)</b> , occasional to frequent cobbles and boulders, gray ( <i>continued</i> )	100			24	REC=40%		
			105			46	REC=76%		
			110						
5		<b>HIGHLY WEATHERED SHALE</b> <b>SHALE</b> , frequent siltstone lenses and graywacke bands, occasional quartz veins, gray, slightly to moderately weathered, weak rock to medium-strong, close to moderate fracture spacing with high angle joints, very poor to poor RQD <b>Core Run #1: Very Poor RQD</b>  <b>Core Run #2: Poor RQD, highly weathered from 117 to 117.5', graywacke with quartz seams from 117.5 to 119.5'</b>	115			30	REC=50% RQD=13%		
			120			42	REC=70% RQD=32%		
		<b>Boring Terminated at 122 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 112', NQ core barrel thru boulder seam 90 to 105'. NQ core barrel to 122'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 08-11-2021

Boring Completed: 08-11-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21



# BORING LOG NO. B-21-18

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL\_JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT\_10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6015° Longitude: -73.7657°  Approximate Surface Elev.: 15 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)	
1		<b>FILL - COAL ASH</b> , dark gray, moist, very loose	8.5			12	1-1-1-1 N=2			
			6.5+/-			2	WH/24"			
2		<b>SILT WITH SAND (ML)</b> , little organics, gray to brown, wet, very soft				1	WH/24"			
					2	WH/24"				
		<b>Pieces of wood observed from 12-14'</b>	14.0	1+/-			22	WH/24"		
		<b>SANDY SILT (ML)</b> , little organics, occasional clay and sand lenses, brown, wet, very soft to soft					22	WH/24"		44.8
							24	WH/24"	11.2	59.1
		<b>SILT (ML)</b> , little organics, brown, wet, very soft	19.0	-4+/-			6	1/12"-1/12" N=1		
		<b>SILTY SAND (SM)</b> , little organics, brown, wet, very soft	21.0	-6+/-			24	WH/12"-3-3 N=3		
		<b>SILT (ML)</b> , little organics, brown, wet, very soft					24	WH/24"		
		<b>SILTY SAND (SM)</b> , little organics, gray, wet, very loose	25.0	-10+/-			17	3-3-4-3 N=7		
		<b>POORLY GRADED SAND (SP)</b> , trace silt and gravel, fine to medium grained, gray, wet, loose	30.0	-15+/-			21	3-3-4-4 N=7		
3		<b>SILTY SAND (SM)</b> , fine to medium grained, brown, wet, loose	35.0	-20+/-			24	WR-WH/18"		35.5
		<b>VARVED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft					24	WR/18"-WH		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 123', NQ core barrel to 128'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

**Notes:**  
Logged by: JCH  
WH = Weight of Hammer  
WR = Weight of Rods

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 08-04-2021

Boring Completed: 08-04-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-18

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6015° Longitude: -73.7657°  Approximate Surface Elev.: 15 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>VARVED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft <i>(continued)</i>	50						
		Grades to banded	55		X	24	WR/18"-WH		89.9
		<b>SILT (ML)</b> , gray, wet, very soft	65		X	24	WR/18"-WH		
		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft	75		X	22	WR-WH/18"		
		<b>SILT (ML)</b> , occasional clay bands, gray, wet, medium stiff	85		X	24	WH/24"		
			95		X		7-3-5-8		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 123', NQ core barrel to 128'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

**Notes:**

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**  
*Groundwater measurements not obtained as water was used for borehole advancement*



Boring Started: 08-04-2021

Boring Completed: 08-04-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-18

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6015° Longitude: -73.7657°  Approximate Surface Elev.: 15 (Ft.) +/- DEPTH ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>SILT (ML)</b> , occasional clay bands, gray, wet, medium stiff ( <i>continued</i> )	100		X	24	N=8		
3		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft - seam primarily silt noted	105		X	24	WR/24"		20.1
		<b>CLAYEY SAND WITH GRAVEL (SC)</b> , occasional cobbles and boulders, gray, moist, very dense	110		X	7	28-50/5"		
4		<b>WEATHERED SHALE</b> <b>GRAYWACKE</b> , occasional shale lenses, gray, slightly weathered, weak to medium strong, very close to moderate fracture spacing with high angle joints, poor RQD	115		X	48	REC=80% RQD=28%		
5		<b>Boring Terminated at 128 Feet</b>	125						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 123', NQ core barrel to 128'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 08-04-2021

Boring Completed: 08-04-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-19

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6010° Longitude: -73.7649°  Approximate Surface Elev.: 15 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<p><b>FILL - COAL ASH</b>, dark gray, moist to wet, very loose</p> <p>Little organics noted</p> <p>Poor recovery 15-17', grades to occasional clayey seams</p>	18.0		X	12	WH/12"-1/12"		
			5		X	14	WH/12"-1/12"		
			10		X	13	WH-1-1-1 N=2		
			10		X	14	1-1-1-1 N=2		
			10		X	14	1/12"-1/12" N=1		
			15		X	9	1-1/18"		
			15		X	10	WH-1/12"-1 N=1		
			15		X	1	WH/24"		
			20		X	12	3-2-2-2 N=4		
2		<p><b>POORLY GRADED SAND (SP)</b>, trace silt and gravel, fine to medium grained, gray to brown, wet, loose</p> <p>Grades to trace organics</p>	32.0		X	12	2-2-4-4 N=6		
			30		X	12	3-3-4-3 N=7		
		<b>Boring Terminated at 32 Feet</b>	-17+/-						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 30'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
Logged by: JCH  
WH = Weight of Hammer

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 09-03-2021

Boring Completed: 09-03-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-20

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6008° Longitude: -73.7658°  Approximate Surface Elev.: 15 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<p><b>FILL - COAL ASH</b>, dark gray, moist to wet, very loose</p> <p>Pieces of wood, trace organics from about 4 to 7'</p>	12.0	3+/-	4	4	1-1/12"-1 N=1		
			18		18	18	1/12"-1/12" N=1		
			7		7	7	WH/12"-1-2 N=1		
			24	▽	24	24	WH/24"		106.4
			0		0	0	WH/24"		
			22		22	22	WH/24"		
		<p><b>SILT WITH SAND (ML)</b>, little organics, gray to brown, wet, very soft to soft</p>	12.0	3+/-	22	22	WH/24"		39.5
			16.0	-1+/-	24	24	WH/12"-3-2 N=3		
		<p><b>SANDY SILT (ML)</b>, trace organics and roots, fine grained, brown, wet, very soft</p>	20.0	-5+/-	24	24	WH/24"	3.7	44.7
			25.0	-10+/-	21	21	3-4-3-4 N=7		
		<p><b>POORLY GRADED SAND WITH GRAVEL (SP)</b>, trace silt, fine to medium grained, brown, wet, loose</p>	35.0	-20+/-	21	21	WH-3-4-4 N=7		
			30		19	19	3-5-5-3 N=10		
		<p><b>POORLY GRADED SAND (SP)</b>, trace silt, fine to medium grained, brown, wet, loose to medium dense</p> <p>Grades to fine to coarse grained, trace gravel</p>	35.0	-20+/-	24	24	WH/24"		
			40		24	24	WH/24"		33.2
		<p><b>BANDED SILT AND CLAY (CL-ML)</b>, gray, wet, very soft</p> <p>Fine sand seam, trace roots at about 41'</p>	45						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 120', NQ core barrel thru boulders to 123', roller bit to 125'.

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

**Notes:**

Logged by: JCH  
WH = Weight of Hammer  
WR = Weight of Rods

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

▽ 7.6' after 6-8' sample



Boring Started: 07-20-2021

Boring Completed: 07-20-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-20

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6008° Longitude: -73.7658°  Approximate Surface Elev.: 15 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft ( <i>continued</i> )	50		X	24	WR/12"-WH/12"		
		Grades to varved silt and clay	55						
			60		X	24	WR/24"		
			65						
			70		X	24	WR/18"-WH		
			75						
		Grades to banded silt and clay	80		X	24	WR/12"-WH/12"		31.1
			85						
		Grades to varved silt and clay	90		X	24	WR/18"-WH		
			95						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 120', NQ core barrel thru boulders to 123', roller bit to 125'.

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

7.6' after 6-8' sample

Boring Started: 07-20-2021

Boring Completed: 07-20-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020



THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL - JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# BORING LOG NO. B-21-20

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6008° Longitude: -73.7658°  Approximate Surface Elev.: 15 (Ft.) +/- DEPTH ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft ( <i>continued</i> )	100.0 -85+/-						
		<b>SILT (ML)</b> , occasional clay bands, gray, wet, very soft	100		X	24	WH/24"		
		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft	110.0 -95+/-						
		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft	110		X	5	WR/24"		
		<b>CLAYEY GRAVEL WITH SAND (SC)</b> , occasional to frequent cobbles and boulders, gray, moist to wet, very dense, (GLACIAL TILL) <b>Cored through frequent cobbles and boulders from 120 to 123'</b>	120.0 -105+/-						
		<b>CLAYEY GRAVEL WITH SAND (SC)</b> , occasional to frequent cobbles and boulders, gray, moist to wet, very dense, (GLACIAL TILL) <b>Cored through frequent cobbles and boulders from 120 to 123'</b>	120		█	12	50/5"		
		<b>CLAYEY GRAVEL WITH SAND (SC)</b> , occasional to frequent cobbles and boulders, gray, moist to wet, very dense, (GLACIAL TILL) <b>Cored through frequent cobbles and boulders from 120 to 123'</b>	120		█	17			
		<b>CLAYEY GRAVEL WITH SAND (SC)</b> , occasional to frequent cobbles and boulders, gray, moist to wet, very dense, (GLACIAL TILL) <b>Cored through frequent cobbles and boulders from 120 to 123'</b>	125		X	12	73-31-50/5"		
		<b>Sampler Refusal at 126.4 Feet</b>	126.4 -111.5+/-						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 120', NQ core barrel thru boulders to 123', roller bit to 125'.

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

7.6' after 6-8' sample



Boring Started: 07-20-2021

Boring Completed: 07-20-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-21

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6002° Longitude: -73.7650°  Approximate Surface Elev.: 14 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<b>FILL - COAL ASH</b> , dark gray, moist to wet, very loose  Frequent roots from about 4 to 6', occasional to trace roots 6 to 8'	14.0						
			0+/-						
2		<b>SILT WITH SAND (ML)</b> , trace clay seams, occasional to trace organics, brown to black, wet, very soft <b>Little organics from 14-18'</b>  Few 0.5" thick organic bands noted	30.0						
			-16+/-						
		<b>SILTY SAND (SM)</b> , trace organics, gray to brown, wet, very loose	32.0						
			-18+/-						
		<b>Boring Terminated at 32 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 30'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
Logged by: JCH  
WH = Weight of Hammer

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 09-02-2021

Boring Completed: 09-02-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020



# BORING LOG NO. B-21-22

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.5994° Longitude: -73.7650°  Approximate Surface Elev.: 16 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<p><b>FILL - COAL ASH</b>, dark gray, moist, very loose to loose</p> <p>Becomes wet</p> <p>Little organics noted</p> <p>Reed-like stalk noted</p>	<p>14.0</p> <p>2+/-</p>		X	12	WH/24"		
			5		X	18	WH-2-2-3 N=4		
			10		X	14	2-2-2-3 N=4		
			15		X	24	2-2-2-2 N=4		
			20		X	18	1-1-1-1 N=2		
			25		X	6	1-1-1/12" N=1		
			30		X	10	WH/18"-1		
2		<p><b>SILT WITH SAND (ML)</b>, some organics and rootlets/roots, brown to gray, wet, very soft</p> <p>Trace aquatic shell fragments from 16 to 18'</p>	<p>20.0</p> <p>-4+/-</p>		X	10	WH/24"		
			25		X	24	WH/24"		
			30		X	14	WH-5-4-6 N=9		
			35		X	12	2-2-11-14 N=13		
3		<p><b>VARVED SILT AND CLAY (CL-ML)</b>, gray grading to brown, wet, stiff</p>	<p>30.0</p> <p>-14+/-</p>		X	24	4-6-5-7 N=11		
		<p><b>Boring Terminated at 32 Feet</b></p>	<p>32.0</p> <p>-16+/-</p>						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 30'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
Logged by: JCH  
WH = Weight of Hammer

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 09-03-2021

Boring Completed: 09-03-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-23

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.5997° Longitude: -73.7641°  Approximate Surface Elev.: 16 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<p><b>FILL - COAL ASH</b>, trace roots, dark gray, moist, loose to medium dense</p> <p>Becomes wet</p> <p>Trace organics noted</p> <p>Trace pieces of wood</p>	29.0	-13+/-					
2		<p><b>POORLY GRADED SAND (SP)</b>, fine to medium grained, brown, wet, loose to medium dense</p> <p>Piece of wood encountered at about 32'</p>	40.0	-24+/-					89.2
3		<p><b>VARVED SILT AND CLAY (CL-ML)</b>, gray, wet, very soft</p>							22.1
			45						30.0

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 160', NQ core barrel to 165'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:  
Logged by: JCH  
WH = Weight of Hammer  
WR = Weight of Rods

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

▽ 21' after overnight with drillhead at ~90'



Boring Started: 07-10-2021

Boring Completed: 07-13-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

# BORING LOG NO. B-21-23

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.5997° Longitude: -73.7641°  Approximate Surface Elev.: 16 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>VARVED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft <i>(continued)</i>							
		<b>Grades to banded silt and clay</b>	50		X	24	WH/24"		
		<b>Grades to varved silt and clay</b>	55		X	24	WR/12"-WH/12"		
		<b>Grades to banded silt and clay</b>	60		X	24	WR-WH/18"		
			65		X	24	WR-WH/18"		
			70		X	24	WR/12"-WH/12"		
			75						
			80		X	24	WR/12"-WH/12"		
			85						
			90		X	24	WR-WH/18"		
			95						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 160', NQ core barrel to 165'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

∇ 21' after overnight with drillhead at ~90'



Boring Started: 07-10-2021

Boring Completed: 07-13-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# BORING LOG NO. B-21-23

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.5997° Longitude: -73.7641°  Approximate Surface Elev.: 16 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>VARVED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft <i>(continued)</i>	100		X	24	WR/18"-WH		
		Grades to varved silt and clay	105						
		Grades to occasional fine sand partings, medium-stiff at 110-112' sample	110		X	24	5-3-3-7 N=6		20.6
		Grades to banded silt and clay	120		X	24	WR/24"		
		Grades to varved silt and clay	130		X	24	WH/24"		
			140		X	24	WR/24"		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 160', NQ core barrel to 165'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

∇ 21' after overnight with drillhead at ~90'



Boring Started: 07-10-2021

Boring Completed: 07-13-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# BORING LOG NO. B-21-23

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.5997° Longitude: -73.7641°  Approximate Surface Elev.: 16 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		<b>DEPTH</b>	<b>ELEVATION (Ft.)</b>						
3		<b>VARVED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft <i>(continued)</i>	145						
		150.0 -134+/-	150		X	24	WR/24"		
		<b>SILT (ML)</b> , with occasional clay seams, gray, wet, very soft							
		155.0 -139+/-	155		X	15	40-50/5"		
4		<b>SILTY SAND (SM)</b> , trace gravel, fine grained, gray, wet, very dense, (GLACIAL TILL)							
		159.0 -143+/-	160			0	50/0"		
		160.0 -144+/-	160		█	58	REC=96% RQD=45%		
5		<b>WEATHERED SHALE</b> <b>SHALE</b> , with quartz veins, slightly weathered, weak rock, very close to close fracture spacing with high angle fractures, poor RQD							
		165.0 -149+/-	165						
		<b>Sandstone and siltstone lenses from 164 to 165'</b>							
		<b>Boring Terminated at 165 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Tricone rollerbit to 160', NQ core barrel to 165'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

**Notes:**

**Abandonment Method:**  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

∇ 21' after overnight with drillhead at ~90'



Boring Started: 07-10-2021

Boring Completed: 07-13-2021

Drill Rig: Diedrich D-50

Driller: S. Morey











Project No.: JB215020

# BORING LOG NO. B-21-28

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6069° Longitude: -73.7649° Approximate Surface Elev.: 20 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<b>POSSIBLE FILL - SILT WITH SAND (ML)</b> , some mottling, trace rootlets and gravel, occasional clayey seams, brown, moist, stiff	2.0 18+/-			12	2-4-5-7 N=9		
		<b>SILTY SAND (SM)</b> , trace rootlets and gravel, brown, moist, medium dense Grades to very moist	8.0 12+/-			14 19	5-6-7-10 N=13 21-10-9-9 N=19		
		<b>SILTY SAND (SM)</b> , occasional fine to medium grained sand seams, trace organics, gray, wet, very loose	10.0 10+/-			19 21	6-5-5-7 N=10 WH/18"-1		
		<b>CLAYEY SAND (SC)</b> , with wet, gray clay seams, fine to coarse grained, gray, wet, medium dense	14.0 6+/-			21 22 24	8-10-11-12 N=21 8-8-10-10 N=18		
		<b>SILT (ML)</b> , trace organics and clay, gray to brown, wet, very soft <b>Brown clay seams from 16-25'</b>	15			24 24	WH/24" WH/24"		
		<b>POORLY GRADED SAND (SP)</b> , trace silt, fine to medium grained, brown, wet, loose to medium dense  Grades to fine to coarse sand	25.0 -5+/-			24 21	WH/24" 3-2-4-3 N=6		
		<b>POORLY GRADED SAND (SP)</b> , trace silt, fine to medium grained, brown, wet, loose to medium dense  Grades to fine to coarse sand	30			19	7-5-4-5 N=9		
		<b>POORLY GRADED SAND (SP)</b> , trace silt, fine to medium grained, brown, wet, loose to medium dense  Grades to gray, trace gravel	35			19	4-4-6-6 N=10		
		<b>POORLY GRADED SAND (SP)</b> , trace silt, fine to medium grained, brown, wet, loose to medium dense  Grades to gray, trace gravel	40			24	4-6-5-5 N=11		
		<b>POORLY GRADED SAND WITH SILT (SP-SM)</b> , trace gravel, fine to medium grained, gray, wet, medium dense	45.0 -25+/-			18	6-7-7-4 N=14		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 85.2', NQ core barrel to 90.2'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:  
Logged by: JCH  
WH = Weight of Hammer  
WR = Weight of Rods

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 07-01-2021

Boring Completed: 07-01-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# BORING LOG NO. B-21-28

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL - JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6069° Longitude: -73.7649°  Approximate Surface Elev.: 20 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
3		<b>POORLY GRADED SAND WITH SILT (SP-SM)</b> , trace gravel, fine to medium grained, gray, wet, medium dense <i>(continued)</i>	51.5		X	19	7-7-7-3 N=14		
		<b>SILT (ML)</b> , occasional fine to medium sand seams, trace gravel, gray, wet, stiff	55.0		X				
4		<b>BANDED SILT AND CLAY (CL-ML)</b> , gray, wet, very soft	80.0		X		WR-WH/18"		
		<b>Trace organics noted 75-77'</b>	84.0		X		WR/18"-WH		
			85.2		X		2-1/12"-1 N=1		
5		<b>SILTY GRAVEL WITH SAND (GM)</b> , gray, wet, dense, (GLACIAL TILL)	88.0		X		WR/18"-WH		
			90.2		X		21-16-14-24 N=30		
6		<b>WEATHERED SHALE</b> <b>SHALE</b> , gray, occasional quartz veins, slightly weathered, weak rock, close fracture spacing with high angle joints and bedding, poor RQD <b>Frequent siltstone seams from about 87-89'</b>	90.2		X	1	50/2"		
			90.2		X	56	REC=96% RQD=45%		
		<b>Boring Terminated at 90.2 Feet</b>	90.2						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Tricone rollerbit to 85.2', NQ core barrel to 90.2'

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan.

**WATER LEVEL OBSERVATIONS**

Groundwater measurements not obtained as water was used for borehole advancement



Boring Started: 07-01-2021

Boring Completed: 07-01-2021

Drill Rig: Diedrich D-50

Driller: S. Morey

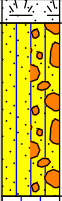
Project No.: JB215020

# TEST PIT LOG NO. TP-21-1

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6070° Longitude: -73.7643°  Approximate Surface Elev.: 15 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		DEPTH							
		1.0 <b>TOPSOIL</b> , dark brown, approx. 1' topsoil at ground surface	14+/-						
		<b>SILTY SAND WITH GRAVEL (SM)</b> , brown, moist							
2		8.0 <b>CLAYEY SILT (ML)</b> , gray, moist, (operator notes greater excavation resistance)	7+/-						
		12.0 <b>Test Pit Terminated at 12 Feet</b>	3+/-						

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:  
3' wide excavator bucket

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
- logged by JSH

Abandonment Method:  
Test pit backfilled in lifts, tamped with excavator bucket

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

*No measurable groundwater in test pit upon completion of excavation*



Test Pit Started: 09-16-2021

Test Pit Completed: 09-16-2021

Excavator: Kobelco SK270SR

Operator: Peter K. Frueh Excavating

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21




# TEST PIT LOG NO. TP-21-2

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6062° Longitude: -73.7662°  Approximate Surface Elev.: 10 (Ft.) +/- DEPTH ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		1.0 <b>TOPSOIL</b> , dark brown, approx. 1' topsoil w/ roots at ground surface	9+/-						
		2.0 <b>SILTY SAND (SM)</b> , brown, moist	8+/-						
		4.0 <b>CLAYEY SILT (ML)</b> , mottled, gray, moist	6+/-						
2		POORLY GRADED SAND WITH GRAVEL (SP), trace silt, brown, moist, occasional clay nodules noted	5						
		10.0	0+/-						
		12.0 <b>SILT (SM)</b> , with organics, gray, wet, some roots, water seeps in from this layer, hole caves below this depth	-2+/-						
		13.5 trace silt, fine to coarse grained, brown, very moist	-3.5+/-						
		<b>Test Pit Terminated at 13.5 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:  
3' wide excavator bucket

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
- logged by JSH

Abandonment Method:  
Test pit backfilled in lifts, tamped with excavator bucket

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

*No measurable groundwater in test pit upon completion of excavation*



Test Pit Started: 09-17-2021

Test Pit Completed: 09-17-2021

Excavator: Kobelco SK270SR

Operator: Peter K. Frueh Excavating

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# TEST PIT LOG NO. TP-21-3

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6057° Longitude: -73.7644°  Approximate Surface Elev.: 17 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		1.0 <b>TOPSOIL</b> , dark brown, approx. 1' topsoil at ground surface	16+/-						
		<b>CLAYEY SILT (ML)</b> , with sand, mottled, brown, moist							
		4.0 - water seeps in at brown/gray interface	13+/-						
2		<b>CLAYEY SILT (ML)</b> , with sand, trace gravel, organics, gray, moist, (operator notes greater excavation resistance) - grades lean clay			6				19.6
		10.0	7+/-						
		<b>POORLY GRADED SAND WITH GRAVEL (SP)</b> , trace silt, fine to medium grained, brown, very moist, occasional clay nodules noted up to 3-4 inches in size	5+/-						
		<b>Test Pit Terminated at 12 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

<p>Advancement Method: 3' wide excavator bucket</p>	<p>See <a href="#">Exploration and Testing Procedures</a> for a description of field and laboratory procedures used and additional data (If any).</p> <p>See <a href="#">Supporting Information</a> for explanation of symbols and abbreviations.</p> <p>Elevation interpolated from topographic site plan</p>	<p>Notes: - logged by JSH</p>						
<p>Abandonment Method: Test pit backfilled in lifts, tamped with excavator bucket</p>								
<p><b>WATER LEVEL OBSERVATIONS</b></p> <p><i>No measurable groundwater in test pit upon completion of excavation</i></p>	<p>30 Corporate Cir Ste 201 Albany, NY</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Test Pit Started: 09-16-2021</td> <td style="width: 50%;">Test Pit Completed: 09-16-2021</td> </tr> <tr> <td>Excavator: Kobelco SK270SR</td> <td>Operator: Peter K. Frueh Excavating</td> </tr> <tr> <td>Project No.: JB215020</td> <td></td> </tr> </table>	Test Pit Started: 09-16-2021	Test Pit Completed: 09-16-2021	Excavator: Kobelco SK270SR	Operator: Peter K. Frueh Excavating	Project No.: JB215020	
Test Pit Started: 09-16-2021	Test Pit Completed: 09-16-2021							
Excavator: Kobelco SK270SR	Operator: Peter K. Frueh Excavating							
Project No.: JB215020								

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# TEST PIT LOG NO. TP-21-4

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6049° Longitude: -73.7674°  Approximate Surface Elev.: 12 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<p><b>FILL - COAL ASH</b>, dark gray, very moist, nil topsoil at ground surface, some roots in upper 1'</p> <p>- hole caves below 3'</p> <p>- becomes wet</p> <p>- hole caves excessively below 10', ash becomes saturated w/ pudding-like consistency</p>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">▽</div> </div>					67.3
		<b>Test Pit Terminated at 12 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:  
3' wide excavator bucket

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

- logged by JSH  
- ground in this area shakes underfoot when tracked over by excavator

Abandonment Method:  
Test pit backfilled in lifts, tamped with excavator bucket

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

▽ At completion of test pit



Test Pit Started: 09-17-2021

Test Pit Completed: 09-17-2021

Excavator: Kobelco SK270SR

Operator: Peter K. Frueh Excavating

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# TEST PIT LOG NO. TP-21-5

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6045° Longitude: -73.7646°  Approximate Surface Elev.: 20 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		DEPTH							
		0.5' <b>TOPSOIL</b> , dark brown, approx. 6" topsoil at ground surface	19.5+/-						
1		<b>FILL - SILTY SAND WITH GRAVEL (SM)</b> , little organics, gray, moist, (fuel oil odor noted)  - grades poorly graded sand with gravel	14+/-						
2		<b>CLAYEY SILT (ML)</b> , with sand, trace gravel, organics, gray, moist, (operator notes greater excavation resistance)	12.0						
		<b>SILTY SAND (SM)</b> , gray-brown, very moist	8+/-						
		<b>Test Pit Terminated at 14 Feet</b>	6+/-						

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:  
3' wide excavator bucket

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
- logged by JSH

Abandonment Method:  
Test pit backfilled in lifts, tamped with excavator bucket

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

*No measurable groundwater in test pit upon completion of excavation*



Test Pit Started: 09-16-2021

Test Pit Completed: 09-16-2021

Excavator: Kobelco SK270SR

Operator: Peter K. Frueh Excavating

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# TEST PIT LOG NO. TP-21-6

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6040° Longitude: -73.7636°  Approximate Surface Elev.: 9 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		DEPTH 0.5' <b>TOPSOIL</b> , dark brown, approx. 6" topsoil at ground surface 8.5' <b>SILTY SAND (SM)</b> , brown, moist, some roots in upper 3' 11.5' - grades poorly grades sand with silt (SP-SM) - becomes wet, caves excessively below this depth - some rootlets, little woody organics noted 6' - 7' 11.5'	5 10						
		<b>Test Pit Terminated at 11.5 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:  
3' wide excavator bucket

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
- logged by JSH

Abandonment Method:  
Test pit backfilled in lifts, tamped with excavator bucket

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

At completion of test pit

Test Pit Started: 09-16-2021

Test Pit Completed: 09-16-2021

Excavator: Kobelco SK270SR

Operator: Peter K. Frueh Excavating

Project No.: JB215020



THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# TEST PIT LOG NO. TP-21-7

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6035° Longitude: -73.7648°  Approximate Surface Elev.: 17 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1	0.3 1.0 4.0	<p><b>TOPSOIL</b>, dark brown, approx. 3" topsoil at ground surface</p> <p><b>FILL - COAL ASH</b></p> <p><b>FILL - LEAN CLAY</b>, with rootlets, blocky texture, gray, moist</p> <p><b>CLAYEY SILT (ML)</b>, with sand, trace gravel, organics, gray, moist</p>	16.5+/- 16+/- 13+/-						18.9
2	11.0 12.0	<p><b>SANDY SILT (ML)</b>, brown, moist</p> <p><i>Test Pit Terminated at 12 Feet</i></p>	6+/- 5+/-						

Stratification lines are approximate. In-situ, the transition may be gradual.

**Advancement Method:**  
3' wide excavator bucket

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

**Notes:**  
- logged by JSH

**Abandonment Method:**  
Test pit backfilled in lifts, tamped with excavator bucket

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

*No measurable groundwater in test pit upon completion of excavation*



Test Pit Started: 09-16-2021

Test Pit Completed: 09-16-2021

Excavator: Kobelco SK270SR

Operator: Peter K. Frueh Excavating

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL - JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# TEST PIT LOG NO. TP-21-8

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6028° Longitude: -73.7669°  Approximate Surface Elev.: 13 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<p><b>FILL - COAL ASH</b>, dark gray, very moist, nil topsoil at ground surface, some roots in upper 1' - hole caves below 2'</p> <p>- becomes wet</p> <p>- hole caves excessively below 11', ash becomes saturated w/ pudding-like consistency</p> <p style="text-align: right;">0+/-</p>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">13.0</div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">▽</div> </div>					63.9
		<p><b>Test Pit Terminated at 13 Feet</b></p>							

Stratification lines are approximate. In-situ, the transition may be gradual.

<p><b>Advancement Method:</b> 3' wide excavator bucket</p>	<p>See <a href="#">Exploration and Testing Procedures</a> for a description of field and laboratory procedures used and additional data (If any).</p> <p>See <a href="#">Supporting Information</a> for explanation of symbols and abbreviations.</p> <p>Elevation interpolated from topographic site plan</p>	<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- logged by JSH</li> <li>- ground in this area shakes underfoot when tracked over by excavator</li> </ul>
<p><b>Abandonment Method:</b> Test pit backfilled in lifts, tamped with excavator bucket</p>		
<p><b>WATER LEVEL OBSERVATIONS</b></p>	<p>30 Corporate Cir Ste 201 Albany, NY</p>	
<p>▽ At completion of test pit</p>		
		<p>Test Pit Started: 09-17-2021</p> <p>Excavator: Kobelco SK270SR</p> <p>Project No.: JB215020</p>
		<p>Test Pit Completed: 09-17-2021</p> <p>Operator: Peter K. Frueh Excavating</p>

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# TEST PIT LOG NO. TP-21-9

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6025° Longitude: -73.7642°  Approximate Surface Elev.: 16 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		DEPTH							
		1.0 <b>TOPSOIL</b> , dark brown, approx. 1' topsoil at ground surface	15+/-						
1		2.5 <b>FILL - SILTY SAND WITH GRAVEL</b> , brown-gray, moist, piece concrete noted	13.5+/-						
		4.0 <b>SANDY SILT (ML)</b> , with clay, mottled, gray, moist	12+/-						
		6.0 <b>SILTY SAND (SM)</b> , gray, moist	10+/-						
2		<b>SANDY SILT (ML)</b> , with clay, rootlets, brown-gray, moist  - operator notes easier excavtion effort below 8'							
		11.0	5+/-						
		12.0 <b>SANDY SILT (ML)</b> , trace organics, brown, very moist	4+/-						
		<b>Test Pit Terminated at 12 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

<p>Advancement Method: 3' wide excavator bucket</p>	<p>See <a href="#">Exploration and Testing Procedures</a> for a description of field and laboratory procedures used and additional data (If any).</p> <p>See <a href="#">Supporting Information</a> for explanation of symbols and abbreviations.</p> <p>Elevation interpolated from topographic site plan</p>	<p>Notes: - logged by JSH</p>						
<p>Abandonment Method: Test pit backfilled in lifts, tamped with excavator bucket</p>								
<p><b>WATER LEVEL OBSERVATIONS</b></p> <p><i>No measurable groundwater in test pit upon completion of excavation</i></p>	<p>30 Corporate Cir Ste 201 Albany, NY</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Test Pit Started: 09-16-2021</td> <td style="width: 50%;">Test Pit Completed: 09-16-2021</td> </tr> <tr> <td>Excavator: Kobelco SK270SR</td> <td>Operator: Peter K. Frueh Excavating</td> </tr> <tr> <td>Project No.: JB215020</td> <td></td> </tr> </table>	Test Pit Started: 09-16-2021	Test Pit Completed: 09-16-2021	Excavator: Kobelco SK270SR	Operator: Peter K. Frueh Excavating	Project No.: JB215020	
Test Pit Started: 09-16-2021	Test Pit Completed: 09-16-2021							
Excavator: Kobelco SK270SR	Operator: Peter K. Frueh Excavating							
Project No.: JB215020								



# TEST PIT LOG NO. TP-21-10

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6016° Longitude: -73.7636°  Approximate Surface Elev.: 17 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		DEPTH							
		0.7	16.5+/-						
1		<b>TOPSOIL</b> , dark brown, approx. 8" topsoil at ground surface							
		<b>FILL - SILTY SAND WITH GRAVEL</b> , brown-gray, moist, occasional angular cobbles, clayey lumps, little brick, slag, wood noted							
		7.0	10+/-						
2		<b>SILTY SAND (SM)</b> , brown, moist							
		12.0	5+/-						
		<b>Test Pit Terminated at 12 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:  
3' wide excavator bucket

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
- logged by JSH

Abandonment Method:  
Test pit backfilled in lifts, tamped with excavator bucket

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

*No measurable groundwater in test pit upon completion of excavation*



Test Pit Started: 09-16-2021

Test Pit Completed: 09-16-2021

Excavator: Kobelco SK270SR

Operator: Peter K. Frueh Excavating

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# TEST PIT LOG NO. TP-21-11

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.6005° Longitude: -73.7634°  Approximate Surface Elev.: 18 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
		DEPTH							
		0.7 <b>TOPSOIL</b> , dark brown, approx. 8" topsoil at ground surface	17.5+/-						
1		<b>FILL - SILTY SAND WITH GRAVEL</b> , brown, moist, trace plastic, metal, cinders  - becomes gray, w/ little wood, stalyk organics, cobbles	6.5						
2		<b>SILTY SAND (SM)</b> , trace organics, gray, moist, occasional clayey lumps noted	11.5+/-						
		12.0	6+/-						
		13.0 <b>SILT (ML)</b> , with sand, bown-gray, moist	5+/-						
		<b>Test Pit Terminated at 13 Feet</b>							

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:  
3' wide excavator bucket

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
- logged by JSH

Abandonment Method:  
Test pit backfilled in lifts, tamped with excavator bucket

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

*No measurable groundwater in test pit upon completion of excavation*



Test Pit Started: 09-16-2021

Test Pit Completed: 09-16-2021

Excavator: Kobelco SK270SR

Operator: Peter K. Frueh Excavating

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 2/3/22

# TEST PIT LOG NO. TP-21-12

**PROJECT:** Proposed Marmen Manufacturing Facility

**CLIENT:** McFarland Johnson  
Saratoga Springs, NY

**SITE:** River Road  
Glenmont, NY

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 42.5999° Longitude: -73.7648°  Approximate Surface Elev.: 14 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	WATER CONTENT (%)
1		<p><b>FILL - COAL ASH</b>, dark gray, very moist, nil topsoil at ground surface, some reedy vegetation in upper few feet</p> <p>- becomes wet, hole caves below 10'</p> <p>- some reedy vegetation, swampy odor noted</p> <p>- ash becomes saturated w/ pudding-like consistency</p>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">5</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">15</div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">▽</div> </div>					70.8
		<p><b>Test Pit Terminated at 16 Feet</b></p>	16.0						

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:  
3' wide excavator bucket

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:  
- logged by JSH

Abandonment Method:  
Test pit backfilled in lifts, tamped with excavator bucket

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation interpolated from topographic site plan

**WATER LEVEL OBSERVATIONS**

▽ At completion of test pit (and rising)



Test Pit Started: 09-17-2021

Test Pit Completed: 09-17-2021

Excavator: Kobelco SK270SR

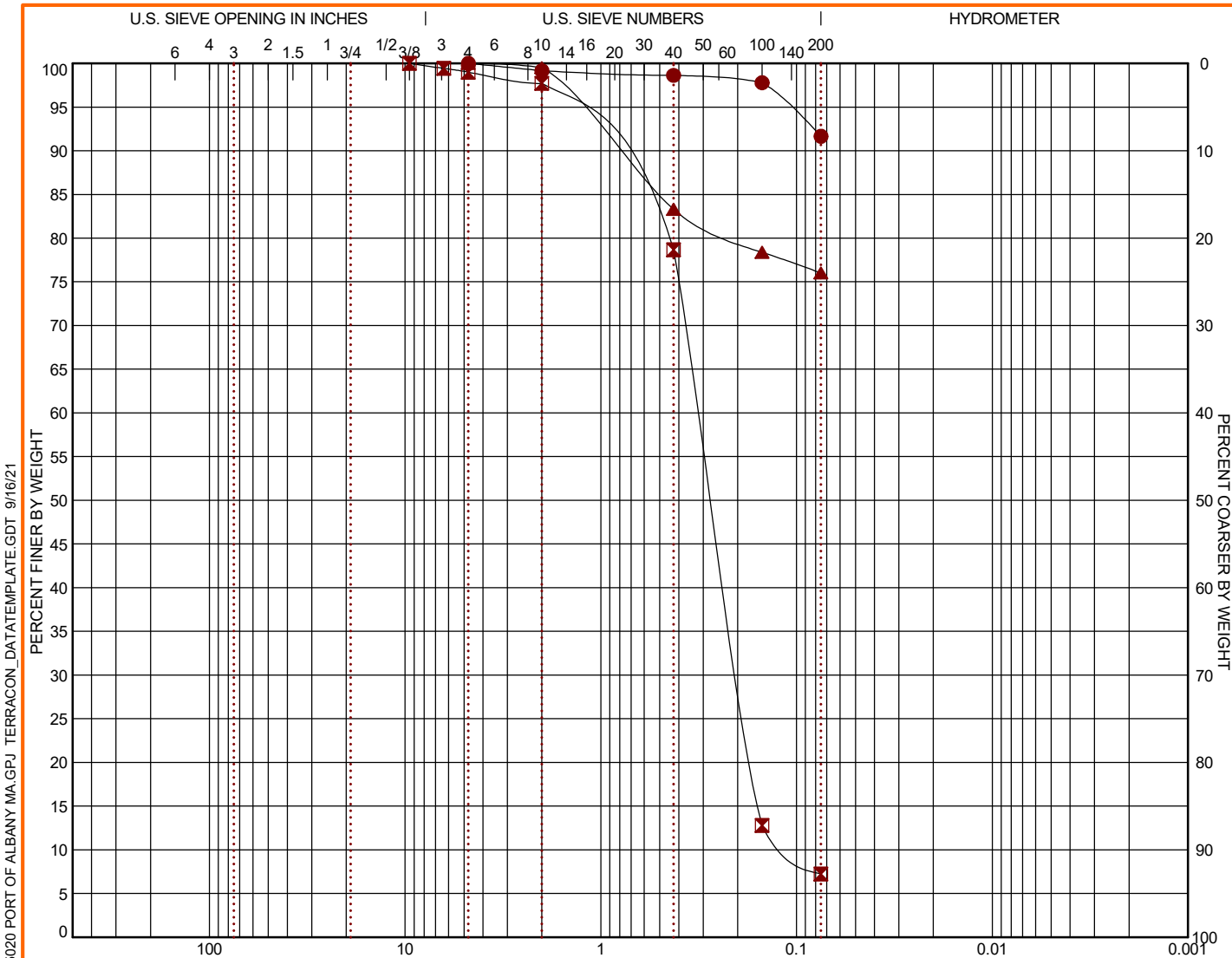
Operator: Peter K. Frueh Excavating

Project No.: JB215020

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. JB215020 PORT OF ALBANY.MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/11/21

# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BORING ID	DEPTH	% COBBLES	% GRAVEL	% SAND	% SILT	% FINES	% CLAY	USCS
● B-21-7	6 - 8	0.0	0.0	8.4		91.6		ML
☒ B-21-8	25 - 27	0.0	1.0	91.7		7.3		SP-SM
▲ B-21-10	4 - 6	0.0	0.0	24.0		76.0		ML

GRAIN SIZE			
	●	☒	▲
D <sub>60</sub>		0.316	
D <sub>30</sub>		0.197	
D <sub>10</sub>		0.106	

COEFFICIENTS			
	●	☒	▲
C <sub>c</sub>		1.16	
C <sub>u</sub>		2.99	

●		☒		▲	
Sieve	% Finer	Sieve	% Finer	Sieve	% Finer
#4	100.0	3/8"	100.0	#4	100.0
#10	99.15	#4	99.43	#10	99.51
#40	98.63	#10	98.98	#40	83.3
#100	97.78	#40	97.7	#100	78.37
#200	91.65	#100	78.68	#200	76.01
		#200	12.78		
			7.25		

SOIL DESCRIPTION	
●	SILT (ML)
☒	POORLY GRADED SAND with SILT (SP-SM)
▲	SILT with SAND (ML)

REMARKS	
●	
☒	
▲	

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS 1 JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 9/16/21

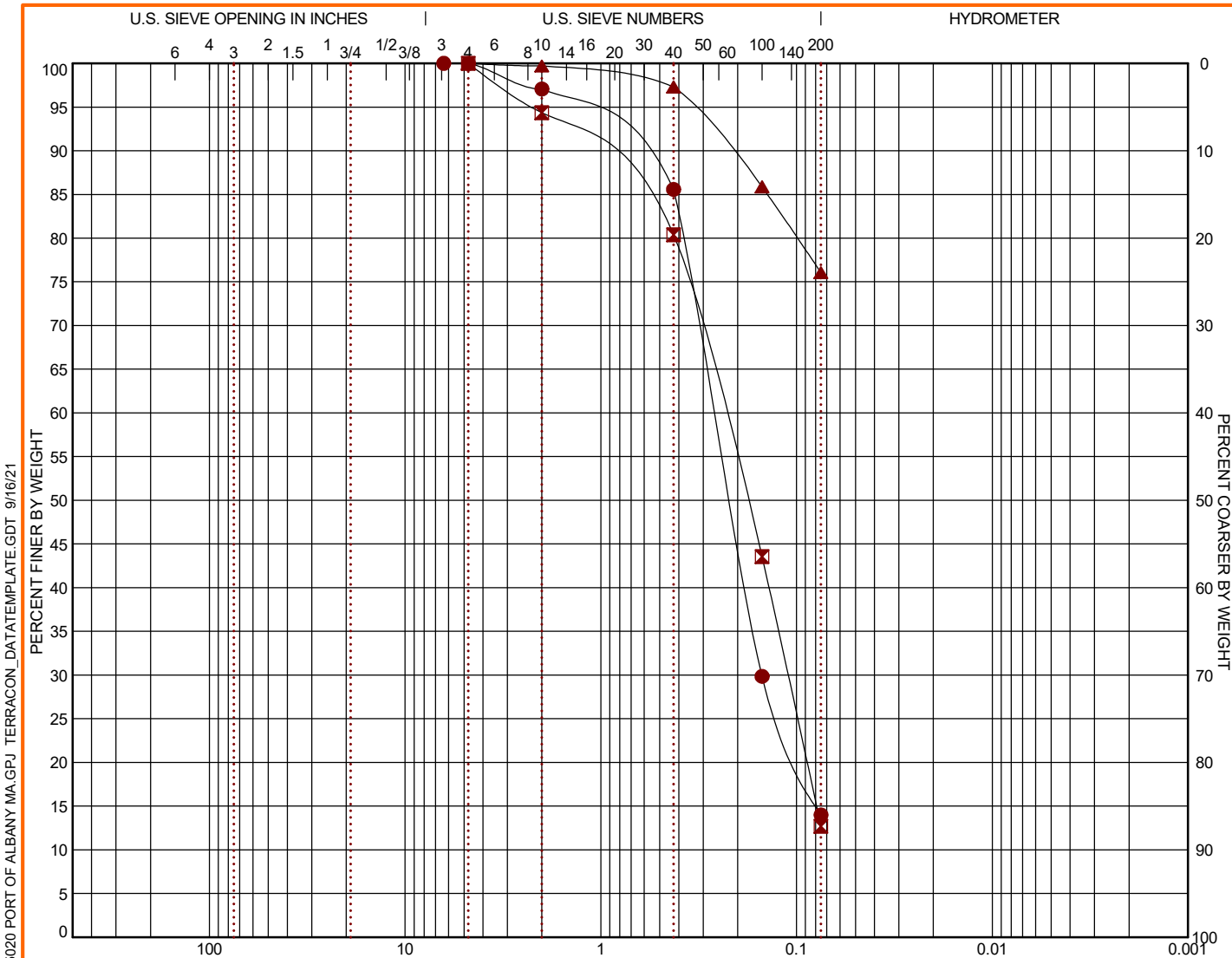
PROJECT: Proposed Marmen Manufacturing Facility  
 SITE: River Road  
 Glenmont, NY



PROJECT NUMBER: JB215020  
 CLIENT: McFarland Johnson  
 Saratoga Springs, NY

# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS 1 JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 9/16/21

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BORING ID	DEPTH	% COBBLES	% GRAVEL	% SAND	% SILT	% FINES	% CLAY	USCS
● B-21-10	16 - 18	0.0	0.0	86.0		14.0		SM
☒ B-21-17	14 - 16	0.0	0.0	87.3		12.7		SM
▲ B-21-20	6 - 8	0.0	0.0	23.9		76.1		ML

GRAIN SIZE			
	●	☒	▲
D <sub>60</sub>	0.264	0.239	
D <sub>30</sub>	0.15	0.111	
D <sub>10</sub>			

●		☒		▲	
Sieve	% Finer	Sieve	% Finer	Sieve	% Finer
#4	100.0	#4	100.0	#4	100.0
#10	99.99	#10	94.35	#10	99.7
#40	97.06	#40	80.38	#40	97.29
#100	85.57	#100	43.57	#100	85.87
#200	29.86	#200	12.69	#200	76.05
	13.99				

SOIL DESCRIPTION	
●	SILTY SAND (SM)
☒	SILTY SAND (SM)
▲	SILT with SAND (ML)

COEFFICIENTS			
	●	☒	▲
C <sub>c</sub>			
C <sub>u</sub>			

REMARKS	
●	
☒	
▲	

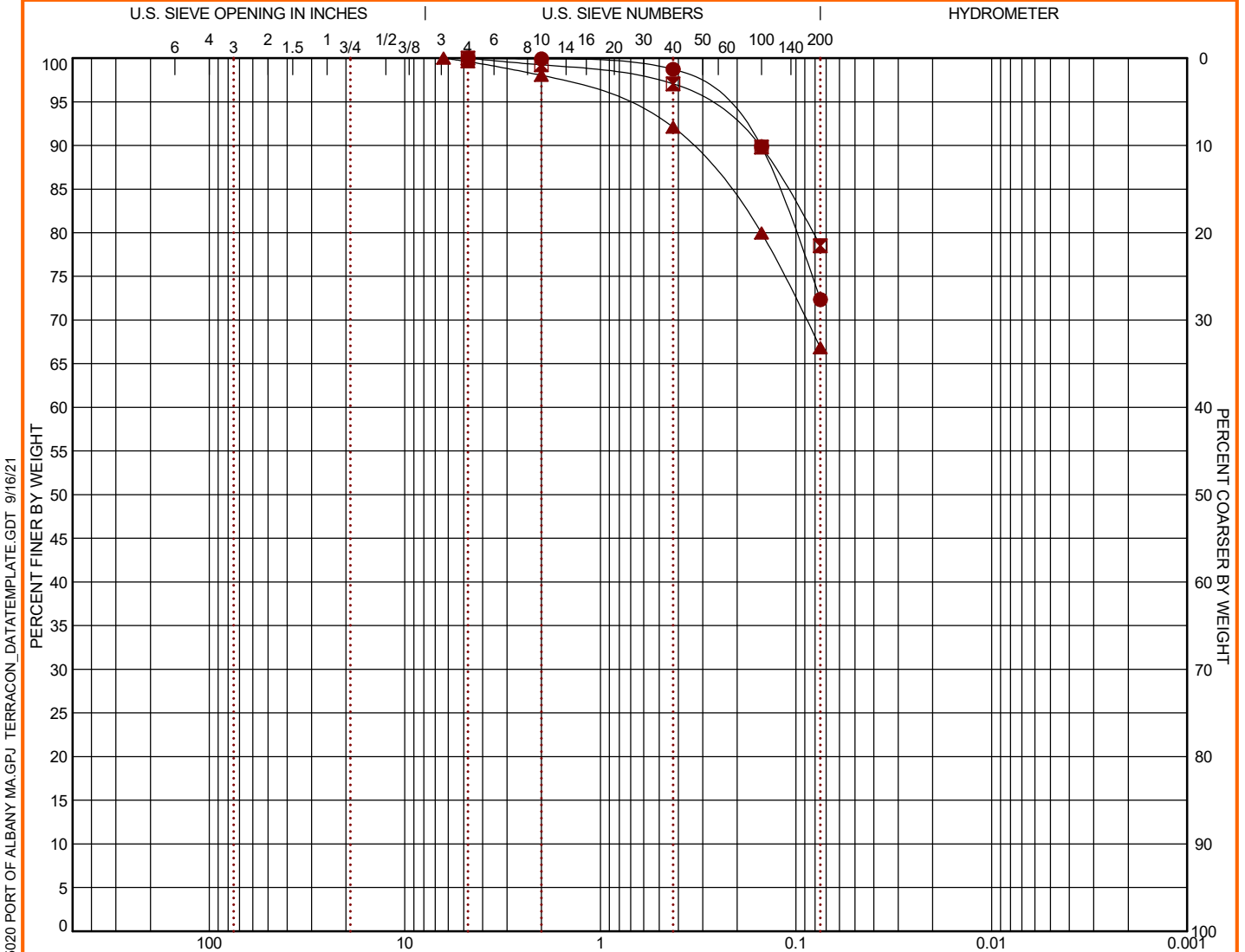
PROJECT: Proposed Marmen Manufacturing Facility  
 SITE: River Road  
 Glenmont, NY



PROJECT NUMBER: JB215020  
 CLIENT: McFarland Johnson  
 Saratoga Springs, NY

# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS 1 JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 9/16/21

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BORING ID	DEPTH	% COBBLES	% GRAVEL	% SAND	% SILT	% FINES	% CLAY	USCS
● S-1	1 - 1.1	0.0	0.0	27.7		72.3		ML
☒ S-2	1 - 3	0.0	0.0	21.5		78.5		ML
▲ S-3	1 - 3	0.0	0.4	32.8		66.8		ML

GRAIN SIZE			
	●	☒	▲
D <sub>60</sub>			
D <sub>30</sub>			
D <sub>10</sub>			

●		☒		▲	
Sieve	% Finer	Sieve	% Finer	Sieve	% Finer
#4	100.0	#4	100.0	#4	100.0
#10	99.9	#10	99.23	#10	99.59
#40	98.72	#40	97.06	#40	98.02
#100	89.86	#100	89.8	#100	92.1
#200	72.34	#200	78.52	#200	79.97
				#200	66.83

SOIL DESCRIPTION	
●	SILT with SAND (ML)
☒	SILT with SAND (ML) (coal ash)
▲	SANDY SILT (ML)

COEFFICIENTS			
	●	☒	▲
C <sub>c</sub>			
C <sub>u</sub>			

REMARKS	
●	
☒	
▲	

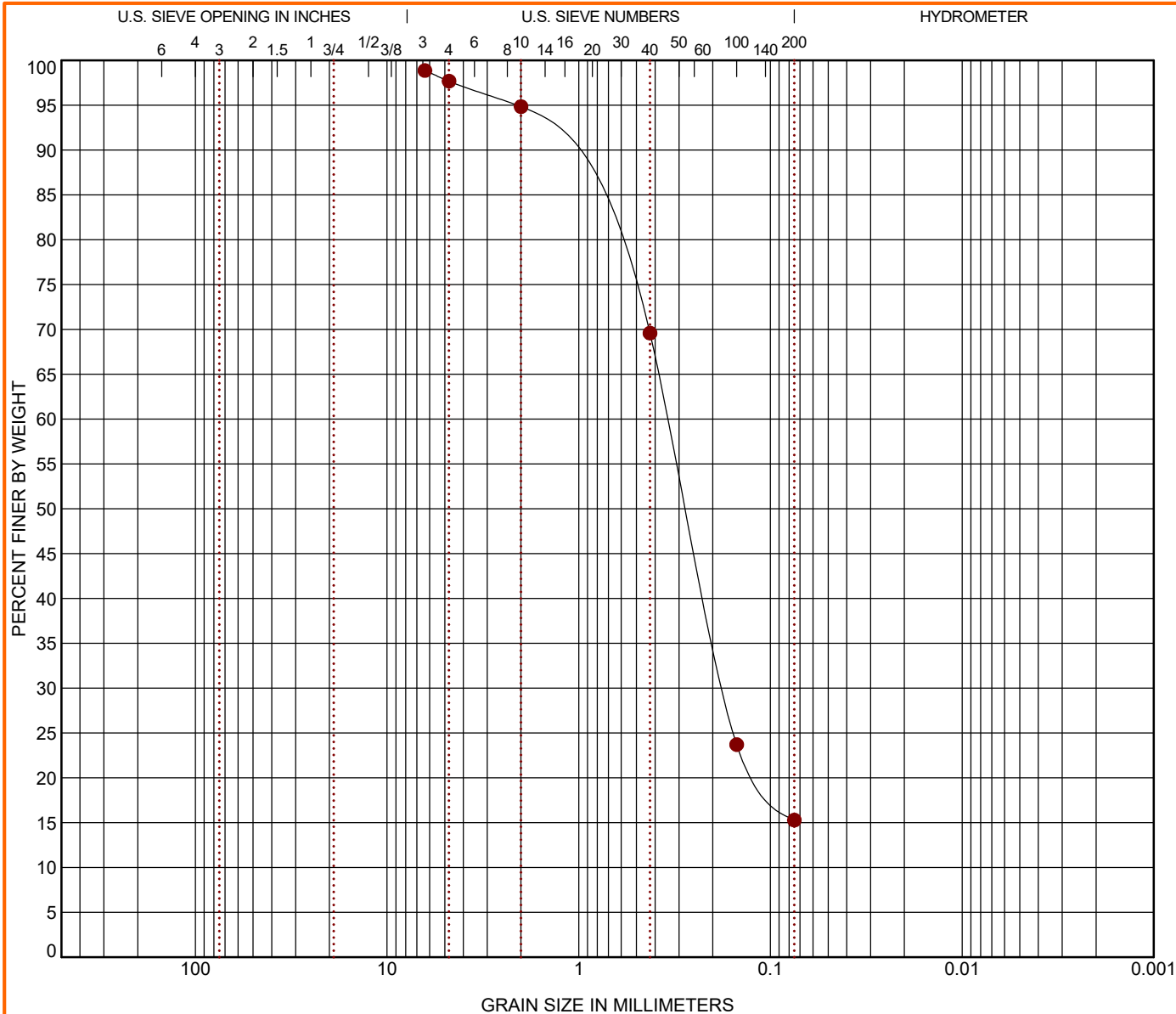
PROJECT: Proposed Marmen Manufacturing Facility  
 SITE: River Road  
 Glenmont, NY



PROJECT NUMBER: JB215020  
 CLIENT: McFarland Johnson  
 Saratoga Springs, NY

# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring ID	Depth	USCS Classification	WC (%)	LL	PL	PI	Cc	Cu
● TP-21-1	4 - 4.5	SILTY SAND (SM)		NP	NP	NP		

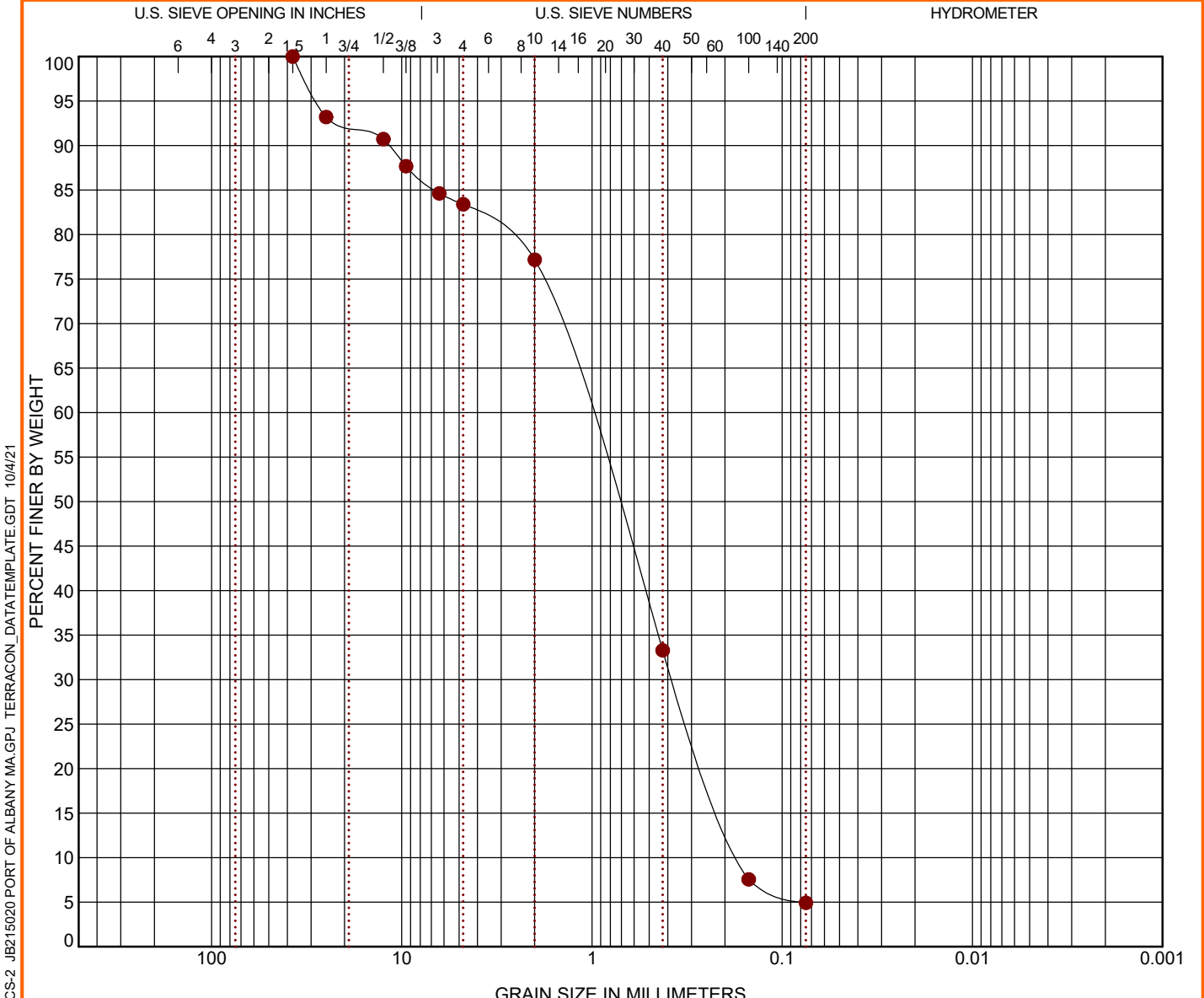
Boring ID	Depth	D <sub>100</sub>	D <sub>60</sub>	D <sub>30</sub>	D <sub>10</sub>	%Cobbles	%Gravel	%Sand	%Silt	%Fines	%Clay
● TP-21-1	4 - 4.5	6.35	0.342	0.173			1.2	82.4		15.3	

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/4/21

PROJECT: Proposed Marmen Manufacturing Facility SITE: River Road Glenmont, NY	30 Corporate Cir Ste 201 Albany, NY	PROJECT NUMBER: JB215020 CLIENT: McFarland Johnson Saratoga Springs, NY
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# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring ID	Depth	USCS Classification	WC (%)	LL	PL	PI	Cc	Cu
● TP-21-2	5 - 5.5	POORLY GRADED SAND with GRAVEL (SP)		NP	NP	NP	0.77	6.59

Boring ID	Depth	D <sub>100</sub>	D <sub>60</sub>	D <sub>30</sub>	D <sub>10</sub>	%Cobbles	%Gravel	%Sand	%Silt	%Fines	%Clay
● TP-21-2	5 - 5.5	37.5	1.091	0.372	0.166	0.0	16.6	78.5		4.9	

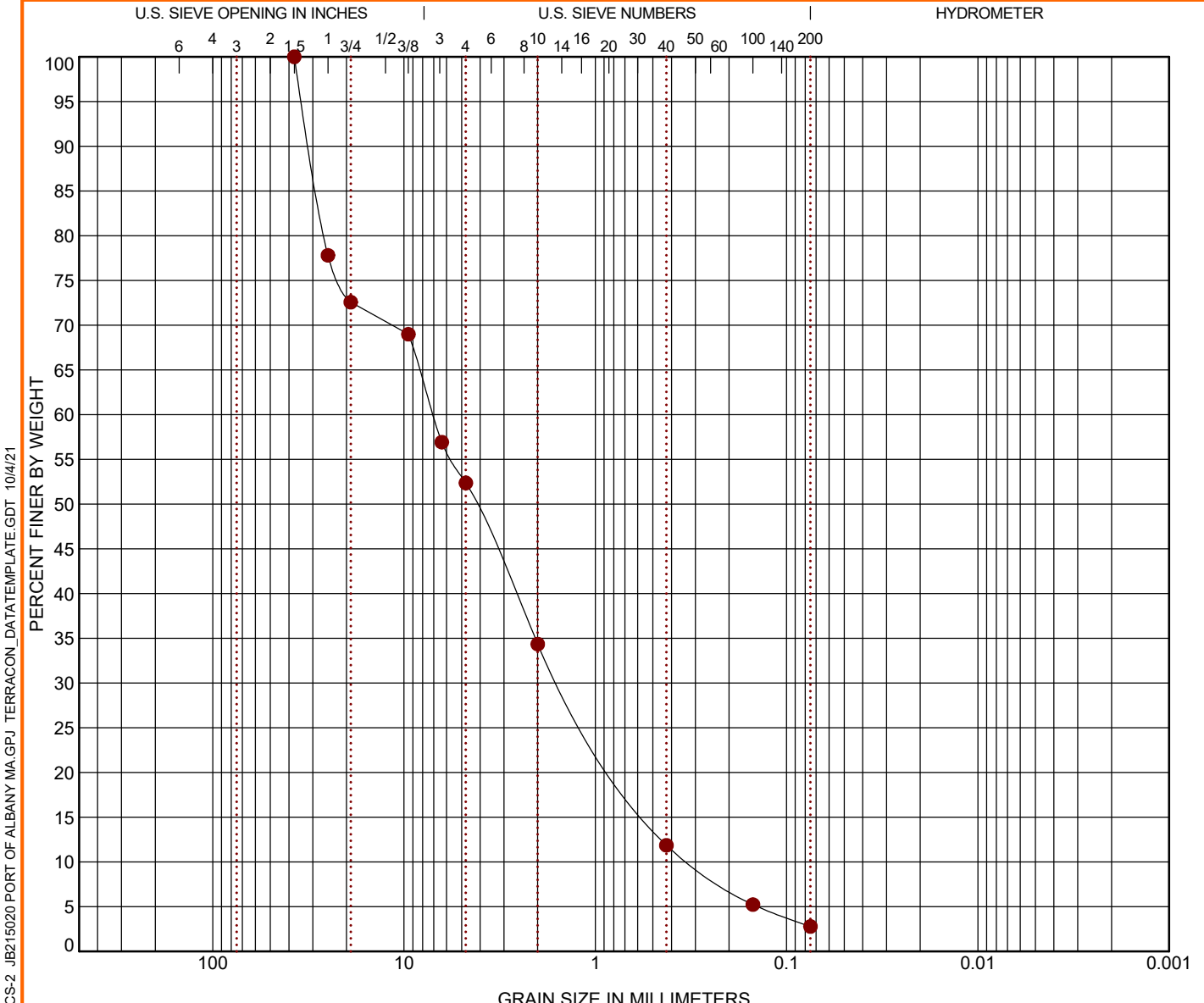
PROJECT: Proposed Marmen Manufacturing Facility  SITE: River Road Glenmont, NY	30 Corporate Cir Ste 201 Albany, NY	PROJECT NUMBER: JB215020  CLIENT: McFarland Johnson Saratoga Springs, NY
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LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/4/21



# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



<b>COBBLES</b>	<b>GRAVEL</b>		<b>SAND</b>			<b>SILT OR CLAY</b>
	coarse	fine	coarse	medium	fine	

Boring ID	Depth	USCS Classification	WC (%)	LL	PL	PI	Cc	Cu
● TP-21-5	4 - 4.5	POORLY GRADED SAND with GRAVEL (SP)		NP	NP	NP	0.98	22.17

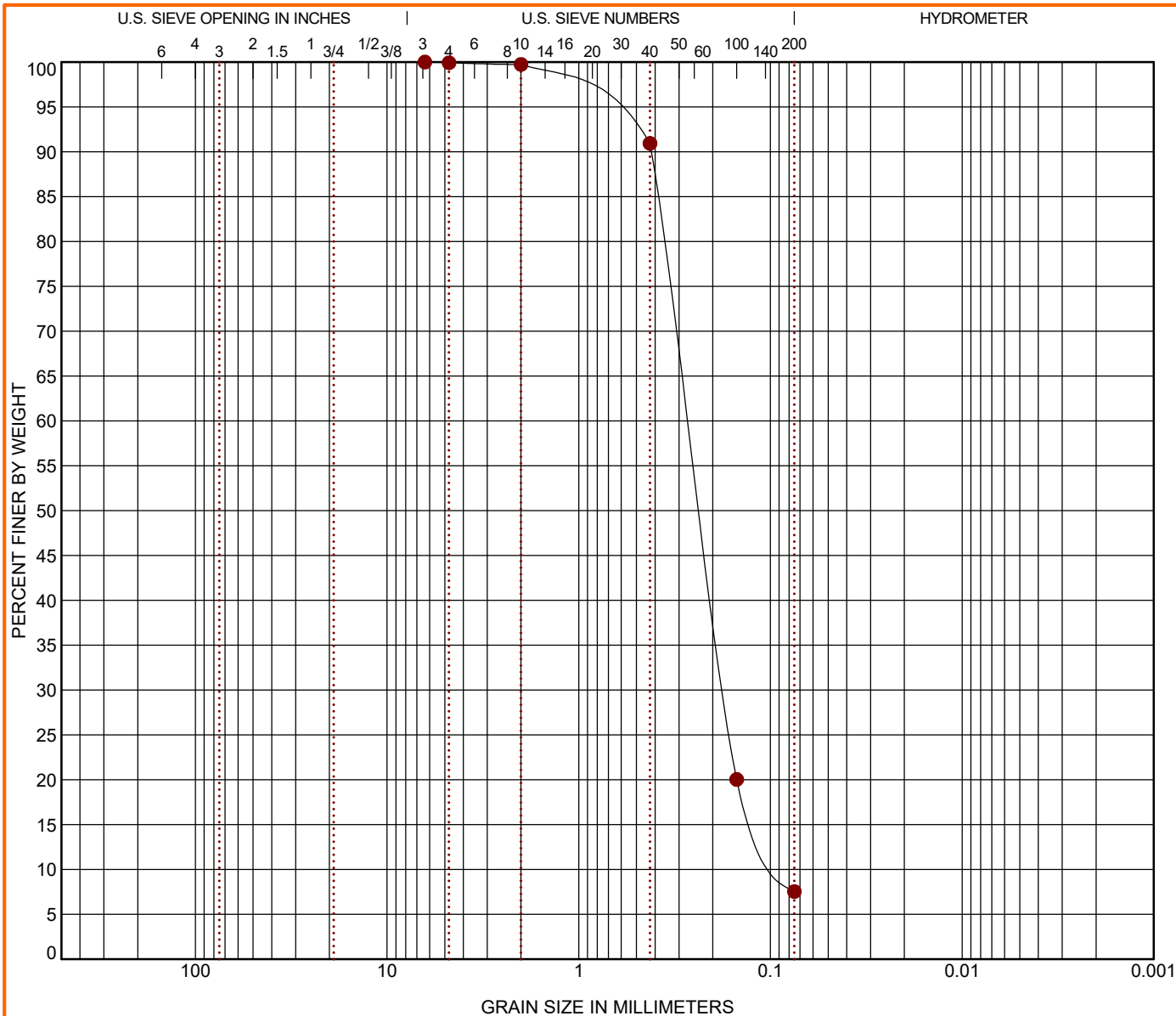
Boring ID	Depth	D <sub>100</sub>	D <sub>60</sub>	D <sub>30</sub>	D <sub>10</sub>	%Cobbles	%Gravel	%Sand	%Silt	%Fines	%Clay
● TP-21-5	4 - 4.5	37.5	7.038	1.483	0.317	0.0	47.6	49.6		2.8	

PROJECT: Proposed Marmen Manufacturing Facility SITE: River Road Glenmont, NY	30 Corporate Cir Ste 201 Albany, NY	PROJECT NUMBER: JB215020 CLIENT: McFarland Johnson Saratoga Springs, NY
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LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/4/21

# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring ID	Depth	USCS Classification	WC (%)	LL	PL	PI	Cc	Cu
● TP-21-6	6 - 6.5	POORLY GRADED SAND with SILT (SP-SM)		NP	NP	NP	1.30	3.14

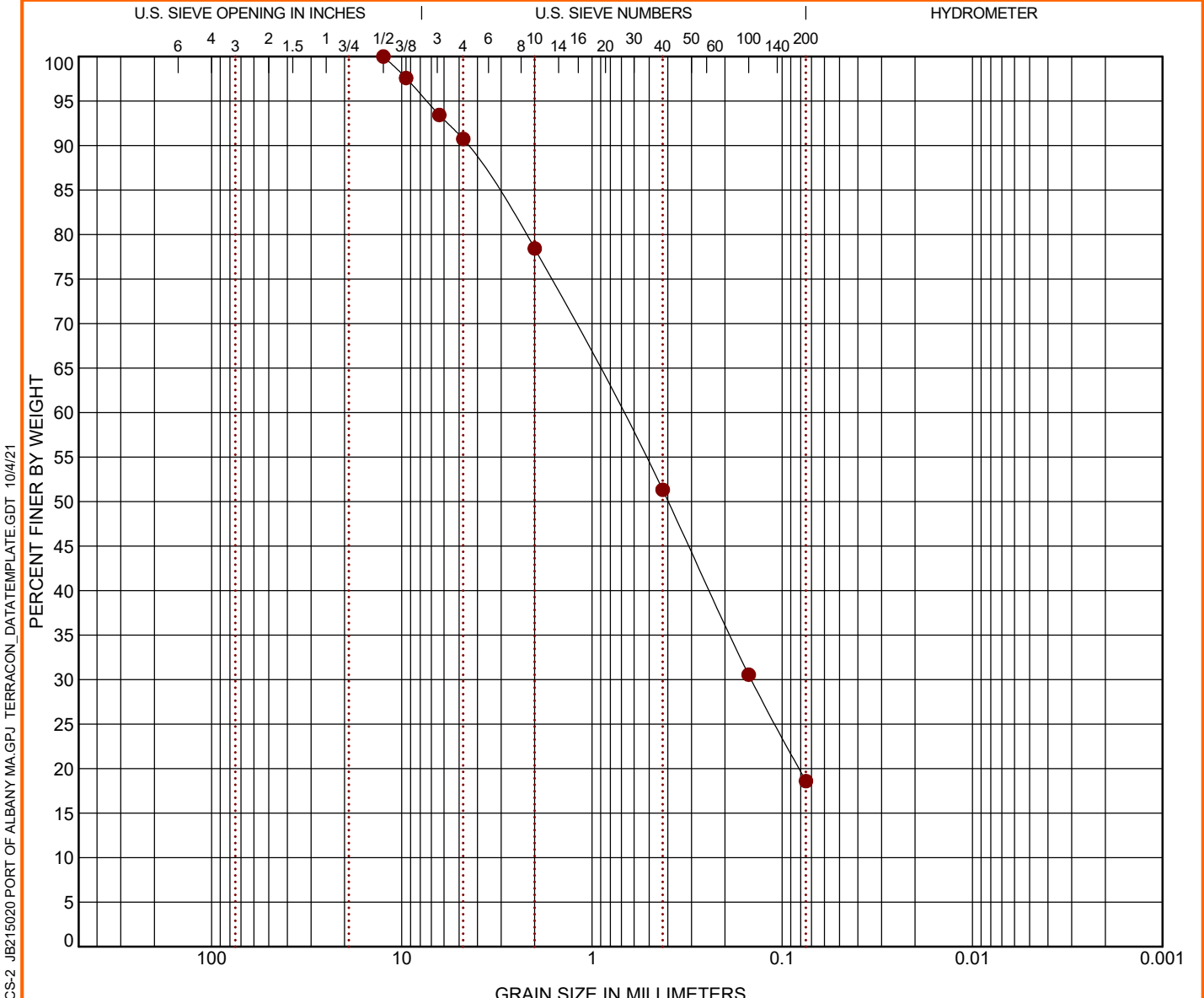
Boring ID	Depth	D <sub>100</sub>	D <sub>60</sub>	D <sub>30</sub>	D <sub>10</sub>	%Cobbles	%Gravel	%Sand	%Silt	%Fines	%Clay
● TP-21-6	6 - 6.5	6.35	0.27	0.174	0.086	0.0	0.1	92.4		7.5	

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/4/21

PROJECT: Proposed Marmen Manufacturing Facility SITE: River Road Glenmont, NY	30 Corporate Cir Ste 201 Albany, NY	PROJECT NUMBER: JB215020 CLIENT: McFarland Johnson Saratoga Springs, NY
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# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/4/21

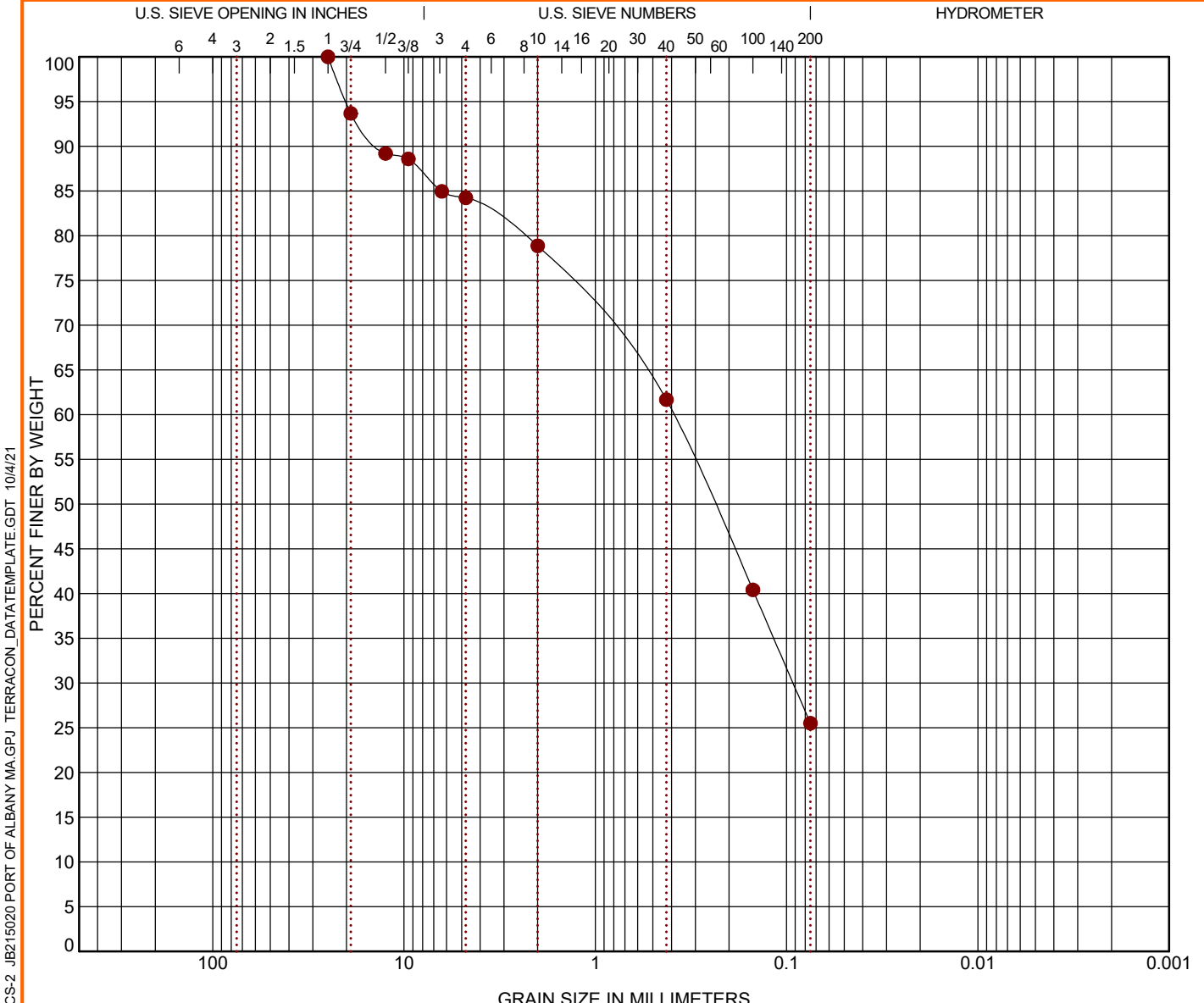
Boring ID	Depth	USCS Classification	WC (%)	LL	PL	PI	Cc	Cu
● TP-21-9	5 - 5.5	SILTY SAND (SM)		NP	NP	NP		

Boring ID	Depth	D <sub>100</sub>	D <sub>60</sub>	D <sub>30</sub>	D <sub>10</sub>	%Cobbles	%Gravel	%Sand	%Silt	%Fines	%Clay
● TP-21-9	5 - 5.5	12.5	0.698	0.145		0.0	9.3	72.1		18.6	

PROJECT: Proposed Marmen Manufacturing Facility  SITE: River Road Glenmont, NY	30 Corporate Cir Ste 201 Albany, NY	PROJECT NUMBER: JB215020  CLIENT: McFarland Johnson Saratoga Springs, NY
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# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring ID	Depth	USCS Classification	WC (%)	LL	PL	PI	Cc	Cu
● TP-21-10	4 - 4.5	SILTY SAND with GRAVEL (SM)		NP	NP	NP		

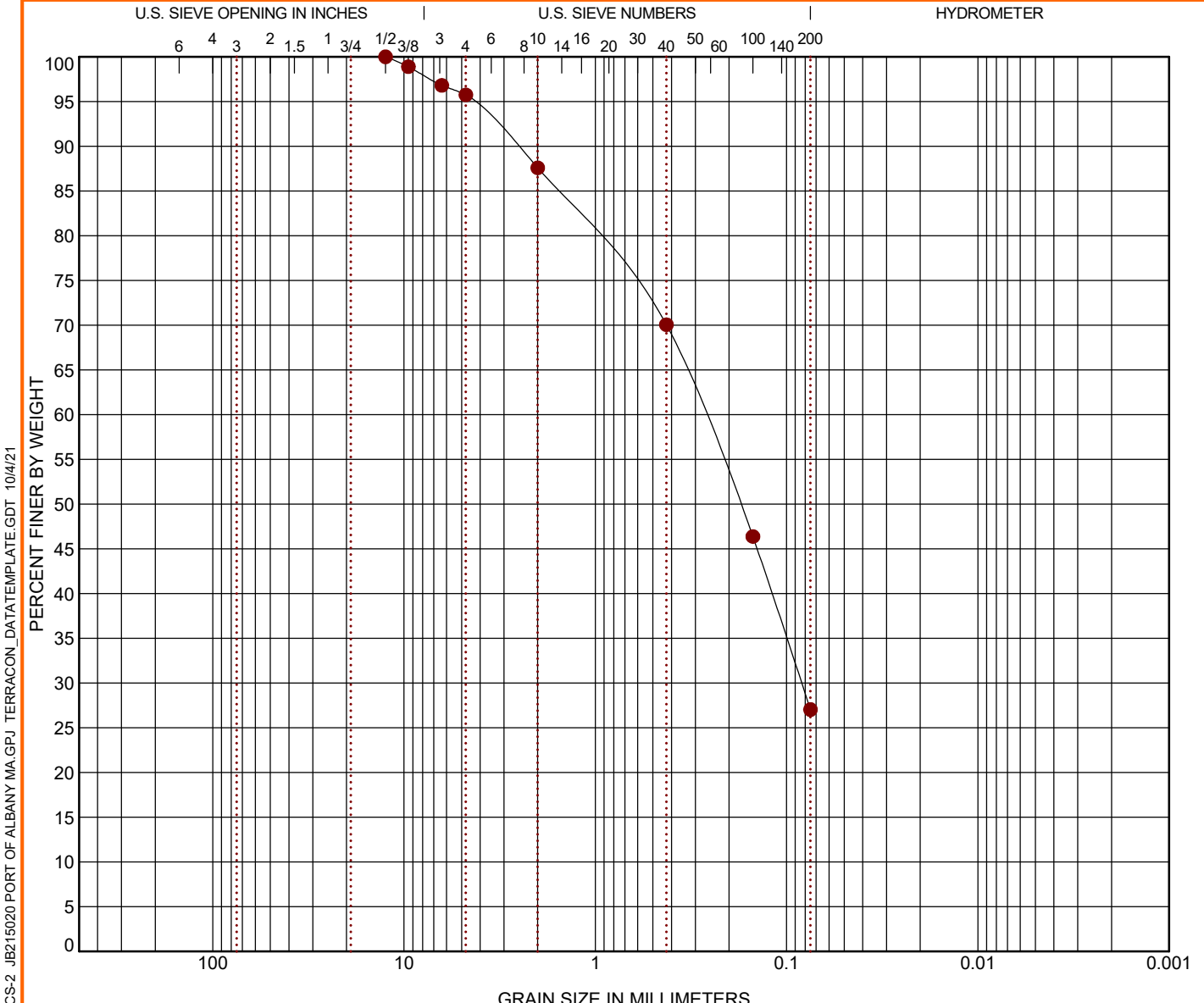
Boring ID	Depth	D <sub>100</sub>	D <sub>60</sub>	D <sub>30</sub>	D <sub>10</sub>	%Cobbles	%Gravel	%Sand	%Silt	%Fines	%Clay
● TP-21-10	4 - 4.5	25	0.392	0.092		0.0	15.8	58.7		25.5	

PROJECT: Proposed Marmen Manufacturing Facility  SITE: River Road Glenmont, NY	30 Corporate Cir Ste 201 Albany, NY	PROJECT NUMBER: JB215020  CLIENT: McFarland Johnson Saratoga Springs, NY
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LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/4/21

# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

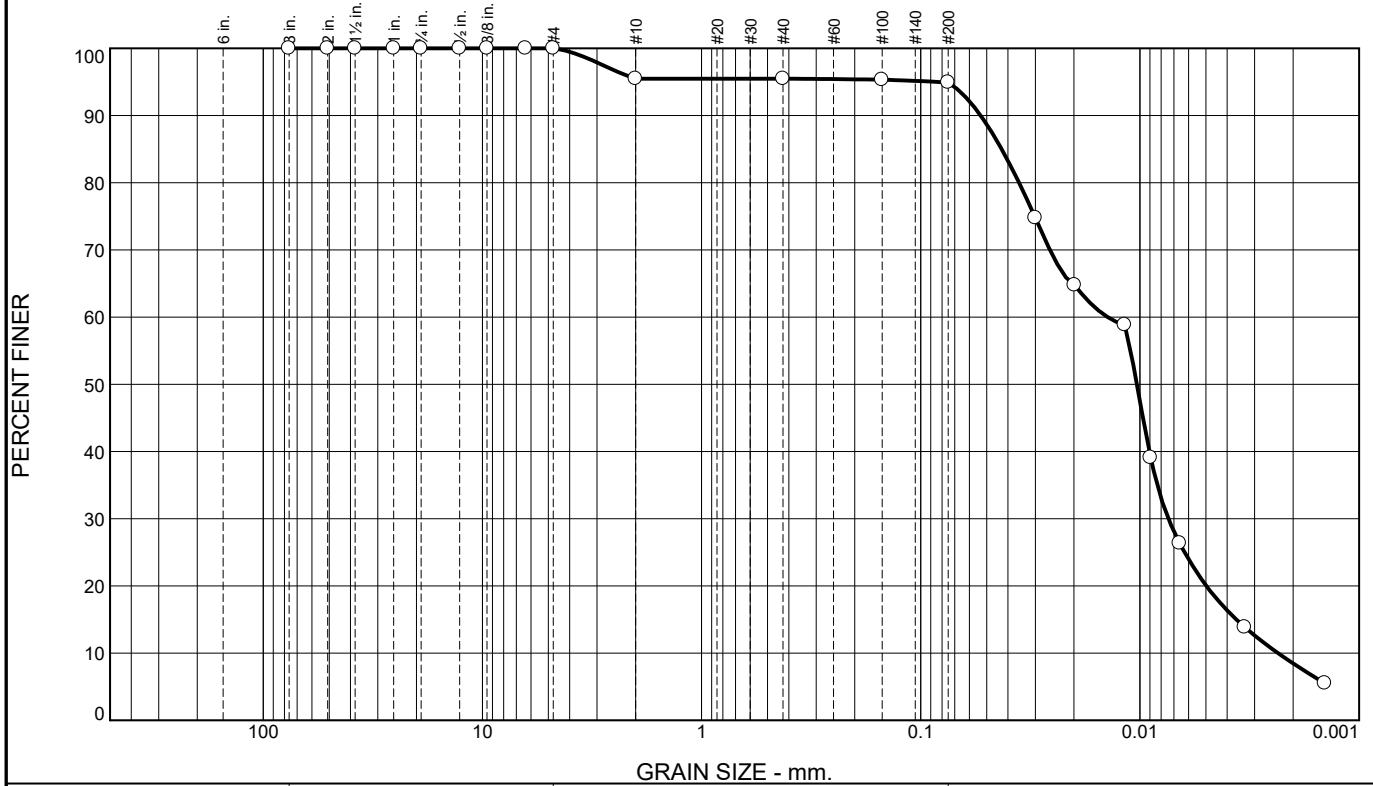
LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/4/21

Boring ID	Depth	USCS Classification	WC (%)	LL	PL	PI	Cc	Cu
● TP-21-11	4 - 4.5	SILTY SAND (SM)		NP	NP	NP		

Boring ID	Depth	D <sub>100</sub>	D <sub>60</sub>	D <sub>30</sub>	D <sub>10</sub>	%Cobbles	%Gravel	%Sand	%Silt	%Fines	%Clay
● TP-21-11	4 - 4.5	12.5	0.273	0.083		0.0	4.3	68.7		27.0	

PROJECT: Proposed Marmen Manufacturing Facility SITE: River Road Glenmont, NY	30 Corporate Cir Ste 201 Albany, NY	PROJECT NUMBER: JB215020 CLIENT: McFarland Johnson Saratoga Springs, NY
---	--	---

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	4.5	0.0	0.6	74.8	20.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
0.25"	100.0		
#4	100.0		
#10	95.5		
#40	95.5		
#100	95.3		
#200	94.9		

**Material Description**

SILT

PL= NP      **Atterberg Limits**      LL= NP      PI= NP

**Coefficients**

D<sub>90</sub>= 0.0533      D<sub>85</sub>= 0.0428      D<sub>60</sub>= 0.0140  
D<sub>50</sub>= 0.0103      D<sub>30</sub>= 0.0074      D<sub>15</sub>= 0.0036  
D<sub>10</sub>= 0.0023      C<sub>u</sub>= 5.99      C<sub>c</sub>= 1.67

**Classification**

USCS= ML      AASHTO= A-4(0)

**Remarks**

Per ASTM D422

\* (no specification provided)

Source of Sample: B-21-17 80'-82'

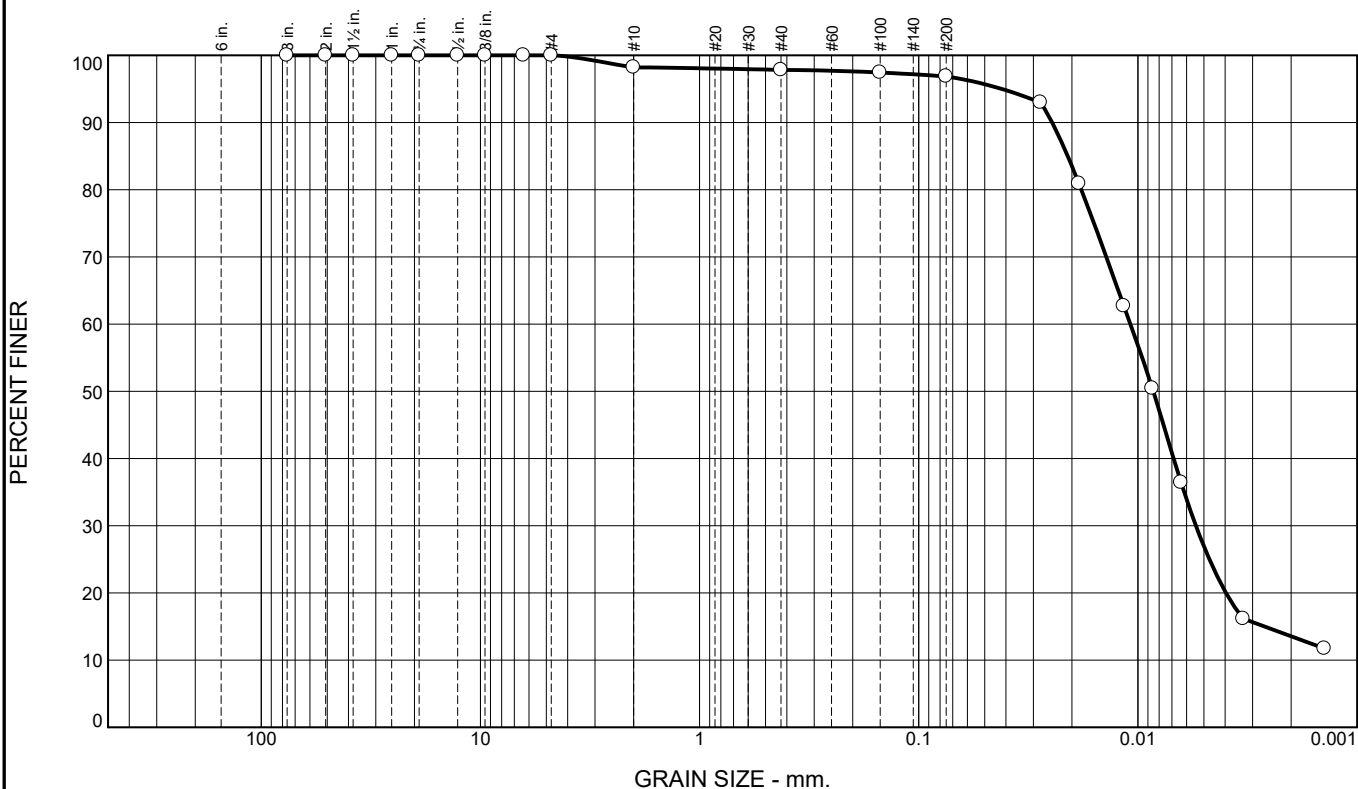
Date: 9-9-21

<b>Terracon Consultants-NY, Inc.</b>  <b>Albany, NY</b>	<b>Client:</b> McFarland Johnson <b>Project:</b> Proposed Marmen Manufacturing Facility Albany, NY <b>Project No:</b> JB215020
---	---

Figure B-21-17 80'-82'

Tested By: AB      Checked By: JH

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	1.8	0.4	1.0	69.9	26.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
0.25"	100.0		
#4	100.0		
#10	98.2		
#40	97.8		
#100	97.4		
#200	96.8		

**Material Description**

SILT

PL= NP      Atterberg Limits  
 LL= NP      PI= NP

Coefficients

D<sub>90</sub>= 0.0246      D<sub>85</sub>= 0.0209      D<sub>60</sub>= 0.0108  
 D<sub>50</sub>= 0.0085      D<sub>30</sub>= 0.0054      D<sub>15</sub>= 0.0026  
 D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

Classification

USCS= ML      AASHTO= A-4(0)

Remarks

Per ASTM D422

\* (no specification provided)

Source of Sample: B-21-18 105'-107'

Date: 9-9-21

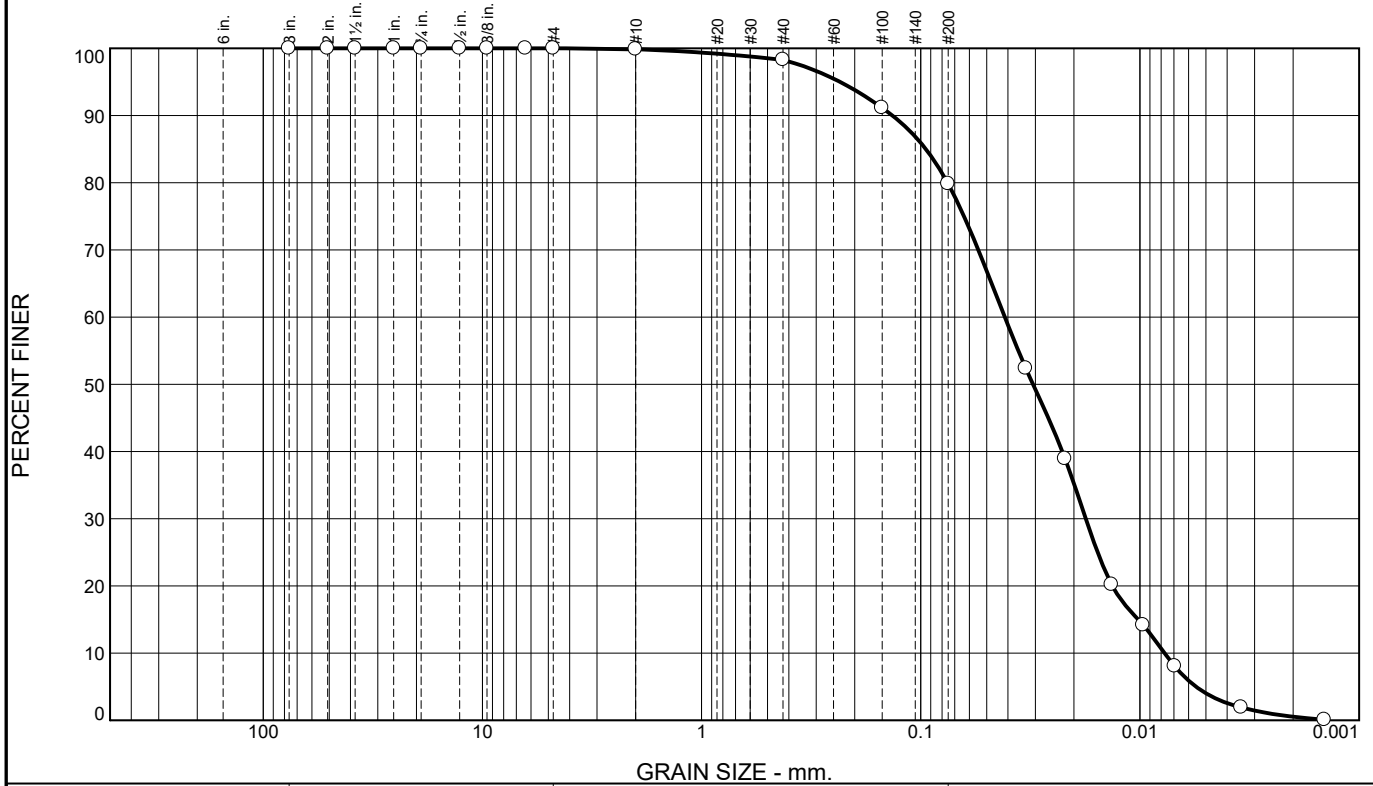
**Terracon Consultants-NY, Inc.**  
**Albany, NY**

**Client:** McFarland Johnson  
**Project:** Proposed Marmen Manufacturing Facility  
 Albany, NY  
**Project No:** JB215020

Figure B-21-18 105'-107'

Tested By: AB      Checked By: JH

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	1.6	18.5	75.8	4.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
0.25"	100.0		
#4	100.0		
#10	99.9		
#40	98.3		
#100	91.1		
#200	79.8		

**Material Description**

SILT

PL= NP      **Atterberg Limits**      LL= NP      PI= NP

**Coefficients**

D<sub>90</sub>= 0.1348      D<sub>85</sub>= 0.0948      D<sub>60</sub>= 0.0414  
D<sub>50</sub>= 0.0308      D<sub>30</sub>= 0.0177      D<sub>15</sub>= 0.0102  
D<sub>10</sub>= 0.0077      C<sub>u</sub>= 5.35      C<sub>c</sub>= 0.98

**Classification**  
USCS= ML      AASHTO= A-4(0)

**Remarks**  
Per ASTM D422

\* (no specification provided)

Source of Sample: B-21-23 12'-14'

Date: 9-9-21

**Terracon Consultants-NY, Inc.**  
**Albany, NY**

**Client:** McFarland Johnson  
**Project:** Proposed Marmen Manufacturing Facility  
Albany, NY  
**Project No:** JB215020

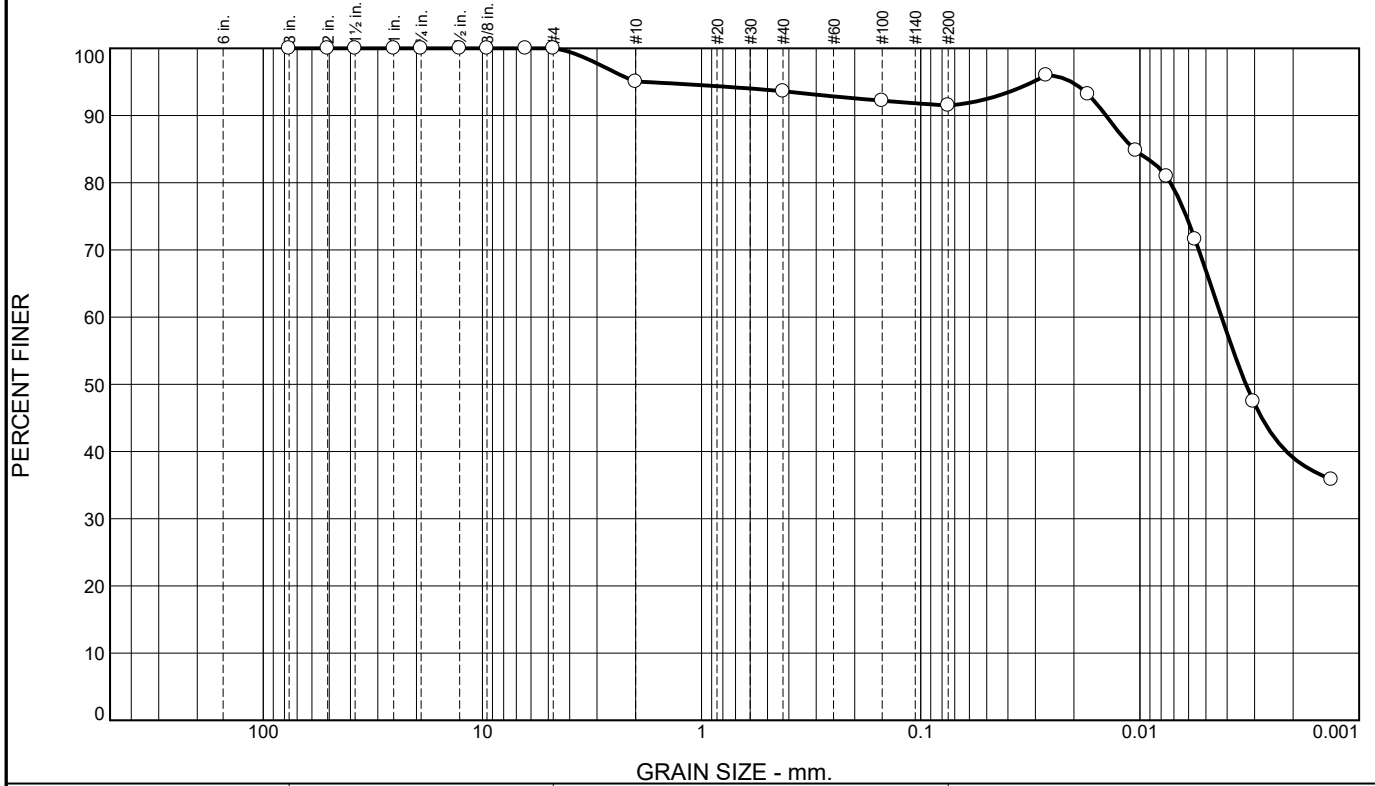
Figure B-21-23 12'-14'

Tested By: AB

Checked By: JH



# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	5.0	1.4	2.1	24.6	66.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
0.25"	100.0		
#4	100.0		
#10	95.0		
#40	93.6		
#100	92.2		
#200	91.5		

**Material Description**

Lean Clay

**Atterberg Limits**  
 PL= 19      LL= 33      PI= 14

**Coefficients**  
 D<sub>90</sub>= 0.0143      D<sub>85</sub>= 0.0106      D<sub>60</sub>= 0.0042  
 D<sub>50</sub>= 0.0033      D<sub>30</sub>=                      D<sub>15</sub>=  
 D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**  
 USCS= CL      AASHTO= A-6(12)

**Remarks**  
 Per ASTM D422

\* (no specification provided)

Source of Sample: TP-21-3 6'-6.5'

Date: 9-29-21

<b>Terracon Consultants-NY, Inc.</b>  <b>Albany, NY</b>	<b>Client:</b> McFarland Johnson <b>Project:</b> Proposed Marmen Manufacturing Facility Albany, NY <b>Project No:</b> JB215020
<b>Figure TP-21-3 6'-6.5'</b>	

Tested By: AB      Checked By: JH

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.9	23.1	71.9	4.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
0.25"	100.0		
#4	100.0		
#10	100.0		
#40	99.1		
#100	89.0		
#200	76.0		

**Material Description**

Silt with sand

**Atterberg Limits**  
 PL= NP      LL= NP      PI= NP

**Coefficients**  
 D<sub>90</sub>= 0.1626      D<sub>85</sub>= 0.1134      D<sub>60</sub>= 0.0470  
 D<sub>50</sub>= 0.0339      D<sub>30</sub>= 0.0152      D<sub>15</sub>= 0.0090  
 D<sub>10</sub>= 0.0078      C<sub>u</sub>= 5.99      C<sub>c</sub>= 0.63

**Classification**  
 USCS= ML      AASHTO= A-4(0)

**Remarks**  
 Per ASTM D422

\* (no specification provided)

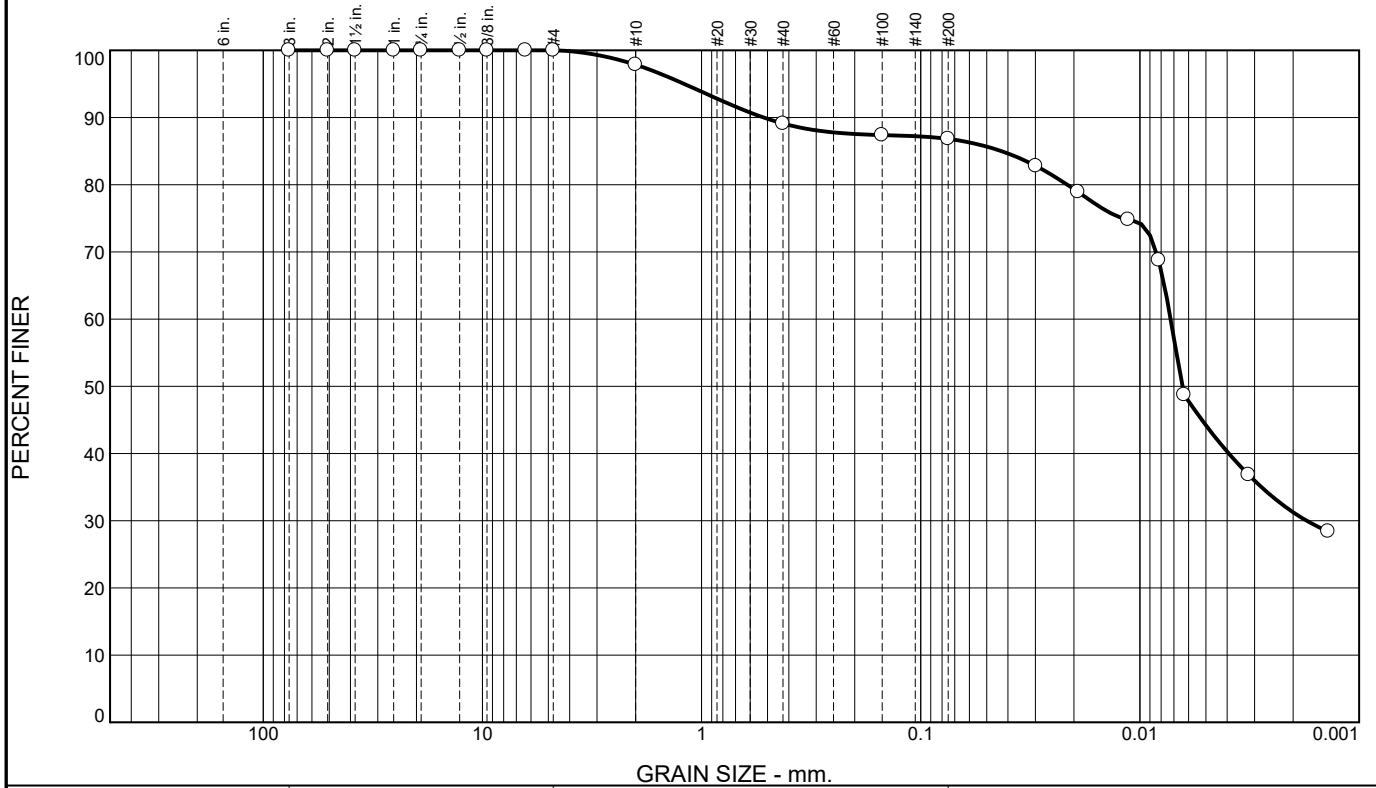
Source of Sample: TP-21-4 4'-4.5'

Date: 9-29-21

<b>Terracon Consultants-NY, Inc.</b>	<b>Client:</b> McFarland Johnson <b>Project:</b> Proposed Marmen Manufacturing Facility Albany, NY
<b>Albany, NY</b>	<b>Project No:</b> JB215020
	<b>Figure TP-21-4 4'-4.5'</b>

Tested By: AB      Checked By: JH

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	2.1	8.8	2.3	42.6	44.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
0.25"	100.0		
#4	100.0		
#10	97.9		
#40	89.1		
#100	87.4		
#200	86.8		

**Material Description**

Lean Clay

**Atterberg Limits**

PL= 21      LL= 33      PI= 12

**Coefficients**

D<sub>90</sub>= 0.5219      D<sub>85</sub>= 0.0429      D<sub>60</sub>= 0.0072  
 D<sub>50</sub>= 0.0064      D<sub>30</sub>= 0.0017      D<sub>15</sub>=  
 D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**

USCS= CL                      AASHTO= A-6(10)

**Remarks**

Per ASTM D422

\* (no specification provided)

Source of Sample: TP-21-7 3'-3.5'

Date: 9-29-21

**Terracon Consultants-NY, Inc.**  
**Albany, NY**

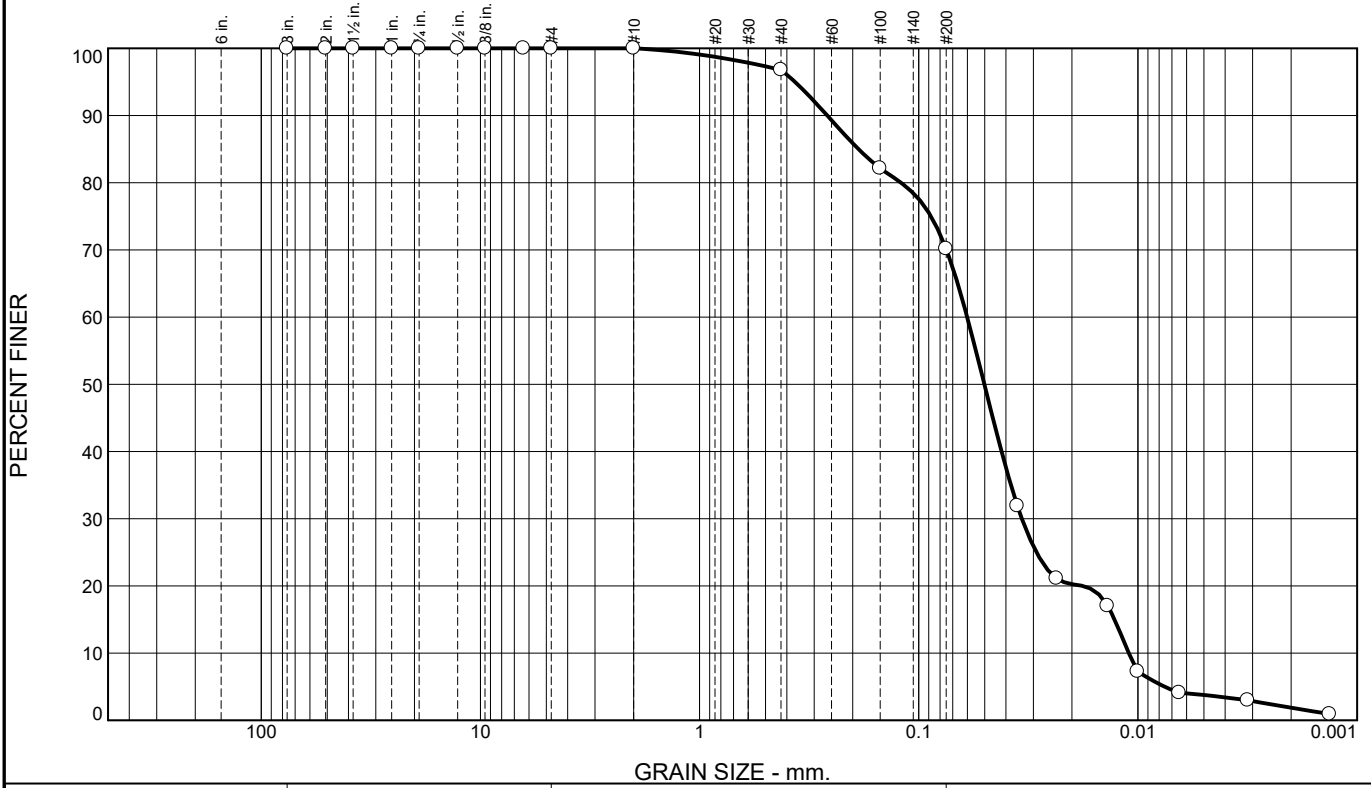
Client: McFarland Johnson  
 Project: Proposed Marmen Manufacturing Facility  
 Albany, NY  
 Project No: JB215020

Figure TP-21-7 3'-3.5'

Tested By: AB

Checked By: JH

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	3.2	26.6	66.4	3.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
0.25"	100.0		
#4	100.0		
#10	100.0		
#40	96.8		
#100	82.2		
#200	70.2		

\* (no specification provided)

**Material Description**

Silt with sand

**Atterberg Limits**  
 PL= NP      LL= NP      PI= NP

**Coefficients**  
 D<sub>90</sub>= 0.2617      D<sub>85</sub>= 0.1883      D<sub>60</sub>= 0.0601  
 D<sub>50</sub>= 0.0502      D<sub>30</sub>= 0.0338      D<sub>15</sub>= 0.0128  
 D<sub>10</sub>= 0.0110      C<sub>u</sub>= 5.46      C<sub>c</sub>= 1.73

**Classification**  
 USCS= ML      AASHTO= A-4(0)

**Remarks**

Per ASTM D422

Source of Sample: TP-21-8 3'-3.5'

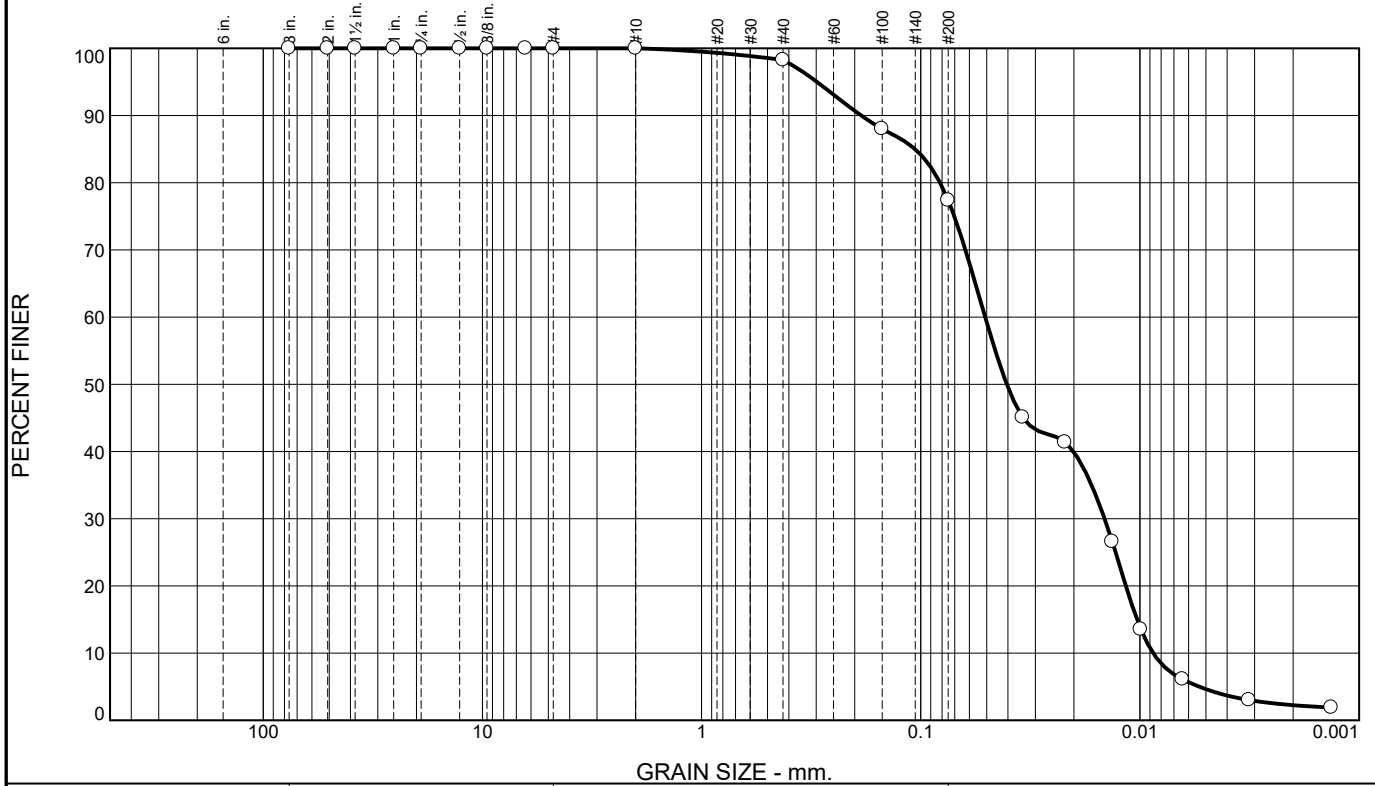
Date: 9-29-21

<b>Terracon Consultants-NY, Inc.</b>  <b>Albany, NY</b>	<b>Client:</b> McFarland Johnson <b>Project:</b> Proposed Marmen Manufacturing Facility Albany, NY <b>Project No:</b> JB215020
---	---

Figure TP-21-8 3'-3.5'

Tested By: AB      Checked By: JH

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	1.7	20.9	72.8	4.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
0.25"	100.0		
#4	100.0		
#10	100.0		
#40	98.3		
#100	88.0		
#200	77.4		

**Material Description**

Silt with sand

**Atterberg Limits**  
 PL= NP      LL= NP      PI= NP

**Coefficients**

D <sub>90</sub> = 0.1870	D <sub>85</sub> = 0.1062	D <sub>60</sub> = 0.0508
D <sub>50</sub> = 0.0405	D <sub>30</sub> = 0.0145	D <sub>15</sub> = 0.0103
D <sub>10</sub> = 0.0087	C <sub>u</sub> = 5.83	C <sub>c</sub> = 0.47

**Classification**  
 USCS= ML      AASHTO= A-4(0)

**Remarks**  
 Per ASTM D422

\* (no specification provided)

Source of Sample: TP-21-12 5'-5.5'

Date: 9-29-21

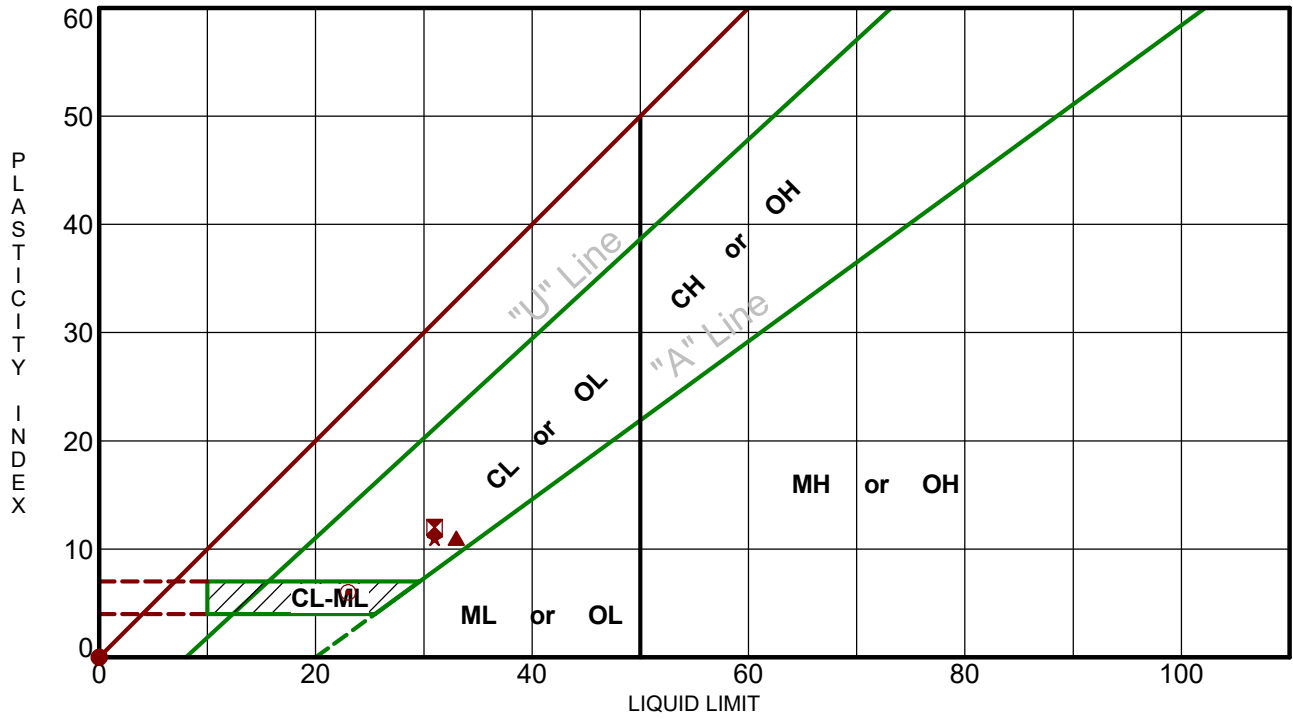
<b>Terracon Consultants-NY, Inc.</b>  <b>Albany, NY</b>	<b>Client:</b> McFarland Johnson <b>Project:</b> Proposed Marmen Manufacturing Facility Albany, NY <b>Project No:</b> JB215020
<b>Figure</b> TP-21-12 5'-5.5'	

Tested By: AB      Checked By: JH

# ATTERBERG LIMITS RESULTS

ASTM D4318

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ATTERBERG LIMITS JB215020 PORT OF ALBANY MA GPJ TERRACON\_DATATEMPLATE.GDT 9/16/21



Boring ID	Depth	LL	PL	PI	Fines	USCS	Description
● B-21-7	60 - 62	NP	NP	NP			
■ B-21-17	40 - 42	31	19	12		CL	Lean Clay
▲ B-21-18	35 - 37	33	22	11		CL	Lean Clay
★ B-21-20	40 - 42	31	20	11		CL	Lean Clay
⊙ B-21-23	110 - 112	23	17	6		CL-ML	Silty clay

PROJECT: Proposed Marmen Manufacturing Facility

SITE: River Road  
Glenmont, NY



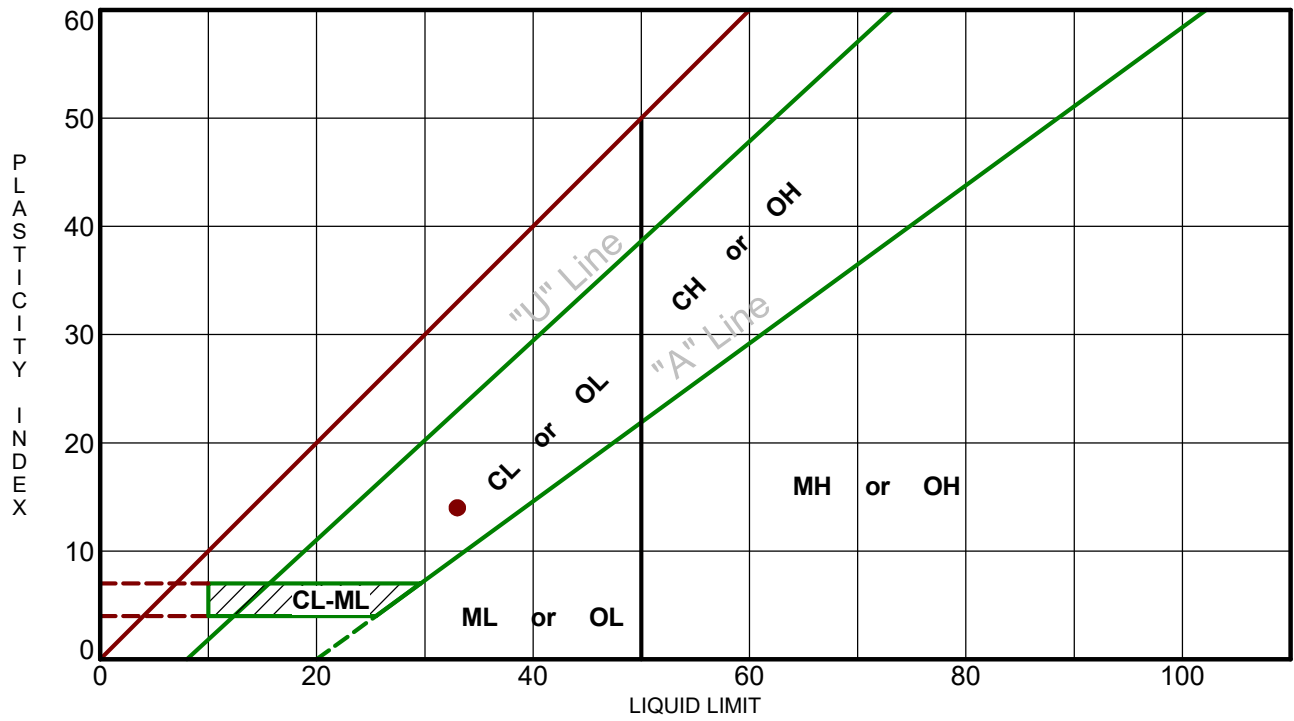
PROJECT NUMBER: JB215020

CLIENT: McFarland Johnson  
Saratoga Springs, NY

# ATTERBERG LIMITS RESULTS

ASTM D4318

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ATTERBERG LIMITS JB215020 PORT OF ALBANY MA GPJ TERRACON\_DATATEMPLATE.GDT 10/4/21



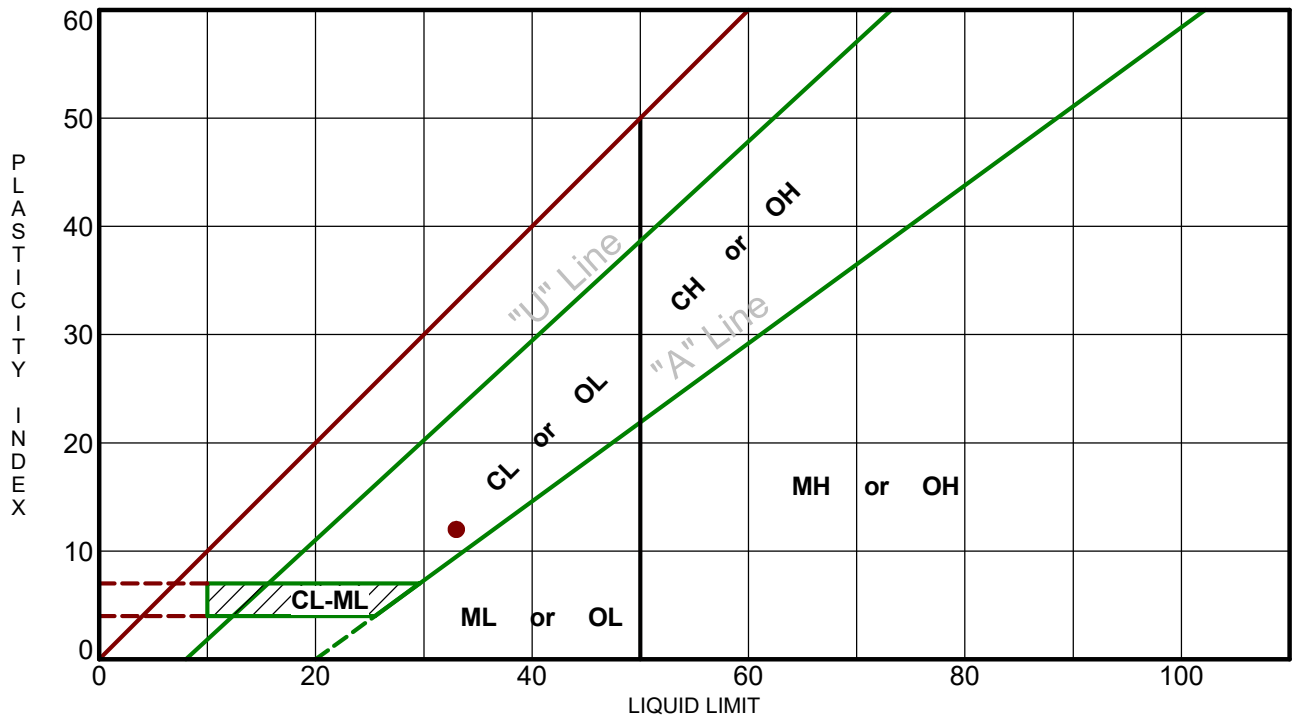
Boring ID	Depth	LL	PL	PI	Fines	USCS	Description
● TP-21-3	6 - 6.5	33	19	14		CL	Lean Clay

<b>PROJECT:</b> Proposed Marmen Manufacturing Facility  <b>SITE:</b> River Road Glenmont, NY	<p>30 Corporate Cir Ste 201 Albany, NY</p>	<b>PROJECT NUMBER:</b> JB215020  <b>CLIENT:</b> McFarland Johnson Saratoga Springs, NY
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# ATTERBERG LIMITS RESULTS

ASTM D4318

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ATTERBERG LIMITS JB215020 PORT OF ALBANY MA GPJ TERRACON\_DATATEMPLATE.GDT 10/4/21



Boring ID	Depth	LL	PL	PI	Fines	USCS	Description
● TP-21-7	3 - 3.5	33	21	12		CL	Lean Clay

PROJECT: Proposed Marmen Manufacturing Facility

SITE: River Road  
Glenmont, NY



PROJECT NUMBER: JB215020

CLIENT: McFarland Johnson  
Saratoga Springs, NY



# Summary of Laboratory Results

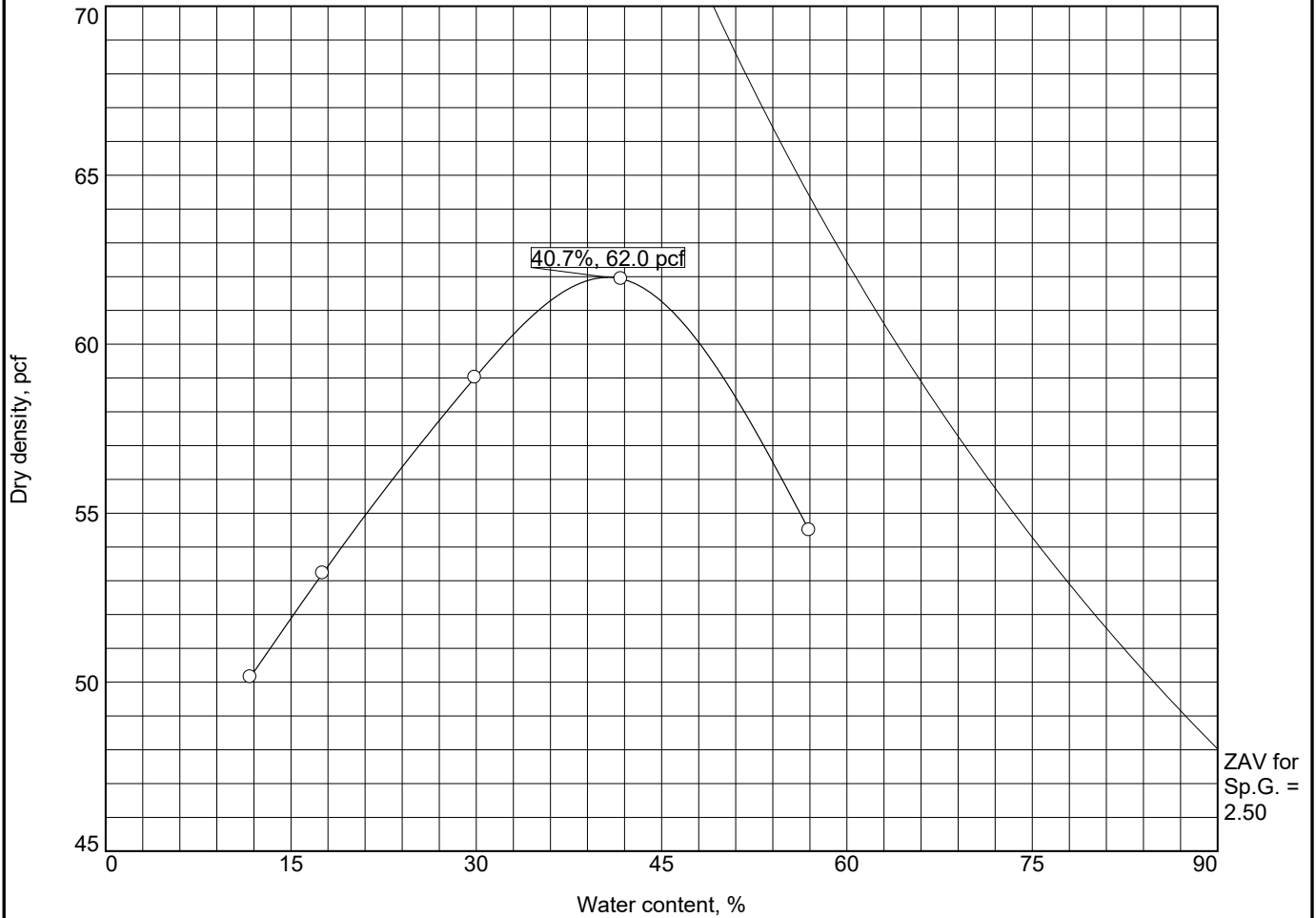
BORING ID	Depth (Ft.)	Water Content (%)	Organic Content (%)
B-21-7	6-8	99.4	
B-21-7	60-62	26.4	
B-21-8	0-2	22.8	
B-21-8	6-8		13.5
B-21-8	10-12	53.4	
B-21-8	25-27	26.8	
B-21-10	4-6	31.7	
B-21-10	10-12	46.7	8.2
B-21-10	16-18	34.9	
B-21-17	10-12	34.6	
B-21-17	14-16	48.3	
B-21-17	25-27	20.3	
B-21-17	40-42	30.5	
B-21-17	80-82	17.5	
B-21-18	10-12	44.8	
B-21-18	12-14	59.1	11.2
B-21-18	35-37	35.5	
B-21-18	55-57	89.9	
B-21-18	105-107	20.1	
B-21-20	6-8	106.4	
B-21-20	12-13.4	39.5	
B-21-20	16-18	44.7	3.7
B-21-20	40-42	33.2	
B-21-20	80-82	31.1	
B-21-23	12-14	89.2	
B-21-23	30-32	22.1	
B-21-23	45-47	30.0	
B-21-23	110-112	20.6	
S-1	1-1.1	41.1	
S-2	1-3	54.9	
S-3	1-3	67.7	
TP-21-3	6-6.5	19.6	
TP-21-4	4-4.5	67.3	
TP-21-7	3-3.5	18.9	
TP-21-8	3-3.5	63.9	
TP-21-12	5-5.5	70.8	

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. SMART LAB SUMMARY-PORTRAIT\_JB215020 PORT OF ALBANY MA.GPJ TERRACON\_DATATEMPLATE.GDT 10/4/21

PROJECT: Proposed Marmen Manufacturing Facility	 <p style="font-size: small;">30 Corporate Cir Ste 201 Albany, NY</p>	PROJECT NUMBER: JB215020
SITE: River Road Glenmont, NY		CLIENT: McFarland Johnson Saratoga Springs, NY



## COMPACTION TEST REPORT



Test specification: ASTM D 1557-00 Method A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
	ML	A-4(0)		2.5	NP	NP	0.0	76.0

TEST RESULTS	MATERIAL DESCRIPTION
<p>Maximum dry density = 62.0 pcf</p> <p>Optimum moisture = 40.7 %</p>	<p>Silt with sand</p> <p>(Coal ash)</p>
<p><b>Project No.</b> JB215020    <b>Client:</b> McFarland Johnson</p> <p><b>Project:</b> Proposed Marmen Manufacturing Facility</p> <p>Albany, NY</p> <p>○ <b>Source of Sample:</b> TP-21-4 4'-4.5'</p> <p style="text-align: center;"><b>Terracon Consultants-NY, Inc.</b></p> <p style="text-align: center;"><b>Albany, NY</b></p>	<p><b>Remarks:</b></p> <p>Per ASTM D1557</p>
Figure TP-21-4 4'-4.5'	

**Tested By:** AB                      **Checked By:** JH





## **SUPPORTING INFORMATION**

### **Contents:**

General Notes

Unified Soil Classification System









Description of Rock Properties

Note: All attachments are one page unless noted above

# GENERAL NOTES

## DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

Proposed Marmen Manufacturing Facility ■ Glenmont, NY  
Terracon Project No. JB215020

SAMPLING	WATER LEVEL	FIELD TESTS
 Rock Core  Grab Sample  Shelby Tube  Split Spoon	 Water Initially Encountered  Water Level After a Specified Period of Time  Water Level After a Specified Period of Time  Cave In Encountered <p>Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.</p>	<b>N</b> Standard Penetration Test Resistance (Blows/Ft.) <b>(HP)</b> Hand Penetrometer <b>(T)</b> Torvane <b>(DCP)</b> Dynamic Cone Penetrometer <b>UC</b> Unconfined Compressive Strength <b>(PID)</b> Photo-Ionization Detector <b>(OVA)</b> Organic Vapor Analyzer

### DESCRIPTIVE SOIL CLASSIFICATION

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

### LOCATION AND ELEVATION NOTES

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See [Exploration and Testing Procedures](#) in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

### STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance		
Descriptive Term (Density)	Standard Penetration or N-Value Blows/Ft.	Descriptive Term (Consistency)	Unconfined Compressive Strength Qu, (tsf)	Standard Penetration or N-Value Blows/Ft.
Very Loose	0 - 3	Very Soft	less than 0.25	0 - 1
Loose	4 - 9	Soft	0.25 to 0.50	2 - 4
Medium Dense	10 - 29	Medium Stiff	0.50 to 1.00	4 - 8
Dense	30 - 50	Stiff	1.00 to 2.00	8 - 15
Very Dense	> 50	Very Stiff	2.00 to 4.00	15 - 30
		Hard	> 4.00	> 30

### RELEVANCE OF SOIL BORING LOG

The soil boring logs contained within this document are intended for application to the project as described in this document. Use of these soil boring logs for any other purpose may not be appropriate.

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests <sup>A</sup>				Soil Classification		
				Group Symbol	Group Name <sup>B</sup>	
<b>Coarse-Grained Soils:</b> More than 50% retained on No. 200 sieve	<b>Gravels:</b> More than 50% of coarse fraction retained on No. 4 sieve	<b>Clean Gravels:</b> Less than 5% fines <sup>C</sup>	$Cu \geq 4$ and $1 \leq Cc \leq 3$ <sup>E</sup>	GW	Well-graded gravel <sup>F</sup>	
			$Cu < 4$ and/or $[Cc < 1$ or $Cc > 3.0]$ <sup>E</sup>	GP	Poorly graded gravel <sup>F</sup>	
		<b>Gravels with Fines:</b> More than 12% fines <sup>C</sup>	Fines classify as ML or MH	GM	Silty gravel <sup>F, G, H</sup>	
			Fines classify as CL or CH	GC	Clayey gravel <sup>F, G, H</sup>	
	<b>Sands:</b> 50% or more of coarse fraction passes No. 4 sieve	<b>Clean Sands:</b> Less than 5% fines <sup>D</sup>	$Cu \geq 6$ and $1 \leq Cc \leq 3$ <sup>E</sup>	SW	Well-graded sand <sup>I</sup>	
			$Cu < 6$ and/or $[Cc < 1$ or $Cc > 3.0]$ <sup>E</sup>	SP	Poorly graded sand <sup>I</sup>	
		<b>Sands with Fines:</b> More than 12% fines <sup>D</sup>	Fines classify as ML or MH	SM	Silty sand <sup>G, H, I</sup>	
			Fines classify as CL or CH	SC	Clayey sand <sup>G, H, I</sup>	
<b>Fine-Grained Soils:</b> 50% or more passes the No. 200 sieve	<b>Silts and Clays:</b> Liquid limit less than 50	<b>Inorganic:</b>	$PI > 7$ and plots on or above "A" line	CL	Lean clay <sup>K, L, M</sup>	
			$PI < 4$ or plots below "A" line <sup>J</sup>	ML	Silt <sup>K, L, M</sup>	
		<b>Organic:</b>	Liquid limit - oven dried	< 0.75	OL	Organic clay <sup>K, L, M, N</sup>
			Liquid limit - not dried			Organic silt <sup>K, L, M, O</sup>
	<b>Silts and Clays:</b> Liquid limit 50 or more	<b>Inorganic:</b>	$PI$ plots on or above "A" line	CH	Fat clay <sup>K, L, M</sup>	
			$PI$ plots below "A" line	MH	Elastic Silt <sup>K, L, M</sup>	
		<b>Organic:</b>	Liquid limit - oven dried	< 0.75	OH	Organic clay <sup>K, L, M, P</sup>
			Liquid limit - not dried			Organic silt <sup>K, L, M, Q</sup>
<b>Highly organic soils:</b>	Primarily organic matter, dark in color, and organic odor			PT	Peat	

<sup>A</sup> Based on the material passing the 3-inch (75-mm) sieve.

<sup>B</sup> If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

<sup>C</sup> Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

<sup>D</sup> Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.

$$Cu = D_{60}/D_{10} \quad Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

<sup>F</sup> If soil contains  $\geq 15\%$  sand, add "with sand" to group name.

<sup>G</sup> If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

<sup>H</sup> If fines are organic, add "with organic fines" to group name.

<sup>I</sup> If soil contains  $\geq 15\%$  gravel, add "with gravel" to group name.

<sup>J</sup> If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

<sup>K</sup> If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

<sup>L</sup> If soil contains  $\geq 30\%$  plus No. 200 predominantly sand, add "sandy" to group name.

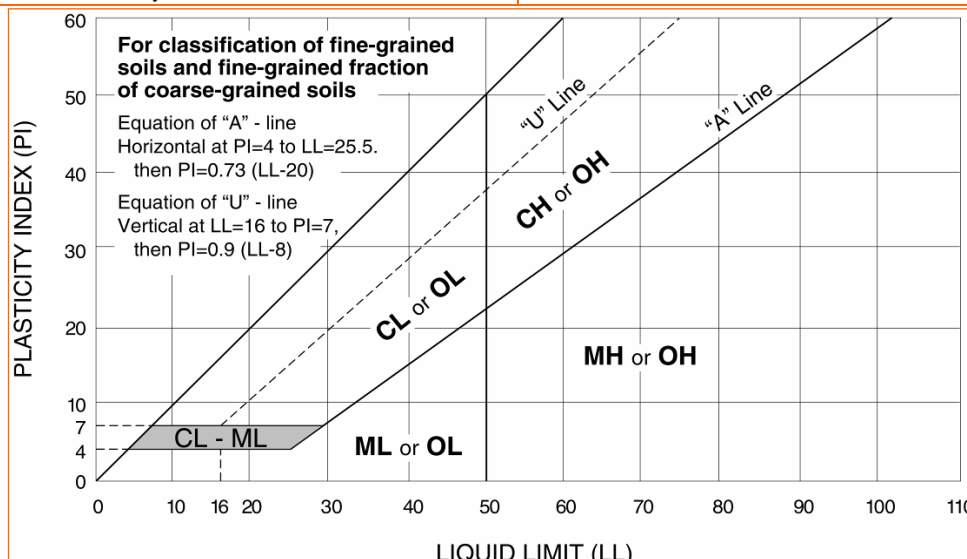
<sup>M</sup> If soil contains  $\geq 30\%$  plus No. 200, predominantly gravel, add "gravelly" to group name.

<sup>N</sup>  $PI \geq 4$  and plots on or above "A" line.

<sup>O</sup>  $PI < 4$  or plots below "A" line.

<sup>P</sup>  $PI$  plots on or above "A" line.

<sup>Q</sup>  $PI$  plots below "A" line.





WEATHERING	
Term	Description
<b>Unweathered</b>	No visible sign of rock material weathering, perhaps slight discoloration on major discontinuity surfaces.
<b>Slightly weathered</b>	Discoloration indicates weathering of rock material and discontinuity surfaces. All the rock material may be discolored by weathering and may be somewhat weaker externally than in its fresh condition.
<b>Moderately weathered</b>	Less than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a continuous framework or as corestones.
<b>Highly weathered</b>	More than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a discontinuous framework or as corestones.
<b>Completely weathered</b>	All rock material is decomposed and/or disintegrated to soil. The original mass structure is still largely intact.
<b>Residual soil</b>	All rock material is converted to soil. The mass structure and material fabric are destroyed. There is a large change in volume, but the soil has not been significantly transported.

STRENGTH OR HARDNESS		
Description	Field Identification	Uniaxial Compressive Strength, psi (MPa)
<b>Extremely weak</b>	Indented by thumbnail	40-150 (0.3-1)
<b>Very weak</b>	Crumbles under firm blows with point of geological hammer, can be peeled by a pocket knife	150-700 (1-5)
<b>Weak rock</b>	Can be peeled by a pocket knife with difficulty, shallow indentations made by firm blow with point of geological hammer	700-4,000 (5-30)
<b>Medium strong</b>	Cannot be scraped or peeled with a pocket knife, specimen can be fractured with single firm blow of geological hammer	4,000-7,000 (30-50)
<b>Strong rock</b>	Specimen requires more than one blow of geological hammer to fracture it	7,000-15,000 (50-100)
<b>Very strong</b>	Specimen requires many blows of geological hammer to fracture it	15,000-36,000 (100-250)
<b>Extremely strong</b>	Specimen can only be chipped with geological hammer	>36,000 (>250)

DISCONTINUITY DESCRIPTION			
Fracture Spacing (Joints, Faults, Other Fractures)		Bedding Spacing (May Include Foliation or Banding)	
Description	Spacing	Description	Spacing
<b>Extremely close</b>	< 3/4 in (<19 mm)	<b>Laminated</b>	< 1/2 in (<12 mm)
<b>Very close</b>	3/4 in – 2-1/2 in (19 - 60 mm)	<b>Very thin</b>	1/2 in – 2 in (12 – 50 mm)
<b>Close</b>	2-1/2 in – 8 in (60 – 200 mm)	<b>Thin</b>	2 in – 1 ft. (50 – 300 mm)
<b>Moderate</b>	8 in – 2 ft. (200 – 600 mm)	<b>Medium</b>	1 ft. – 3 ft. (300 – 900 mm)
<b>Wide</b>	2 ft. – 6 ft. (600 mm – 2.0 m)	<b>Thick</b>	3 ft. – 10 ft. (900 mm – 3 m)
<b>Very Wide</b>	6 ft. – 20 ft. (2.0 – 6 m)	<b>Massive</b>	> 10 ft. (3 m)

**Discontinuity Orientation (Angle):** Measure the angle of discontinuity relative to a plane perpendicular to the longitudinal axis of the core. (For most cases, the core axis is vertical; therefore, the plane perpendicular to the core axis is horizontal.) For example, a horizontal bedding plane would have a 0-degree angle.

ROCK QUALITY DESIGNATION (RQD) <sup>1</sup>	
Description	RQD Value (%)
<b>Very Poor</b>	0 - 25
<b>Poor</b>	25 – 50
<b>Fair</b>	50 – 75
<b>Good</b>	75 – 90
<b>Excellent</b>	90 - 100

1. The combined length of all sound and intact core segments equal to or greater than 4 inches in length, expressed as a percentage of the total core run length.

Reference: U.S. Department of Transportation, Federal Highway Administration, Publication No FHWA-NHI-10-034, December 2009  
Technical Manual for Design and Construction of Road Tunnels – Civil Elements



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

**Syracuse**  
6085 Court Street Road  
Syracuse, NY 13206  
315-699-5281 (T)  
atlantictesting.com

October 17, 2022

LaBella Associates, D.P.C.  
4 British American Blvd  
Latham, New York 12110

Attn: Edward P. Larkin, P.E.

Re: Soil Sampling and Analysis  
Beacon Island Site  
Bethlehem, New York  
ATL Report No. CD10428CE-02-10-22

At the request of representatives of LaBella Associated, D.P.C., on behalf of the Port of Albany District Commission, and in accordance with Atlantic Testing Laboratories, Limited (ATL) contract number CD998-1905X-09-22, dated September 30, 2022, soil sampling was performed at the subject site on October 4 and 5, 2022. The sampling and subsequent laboratory analysis were conducted to provide supplemental site data relative to contaminants of concern at the Beacon Island site.

## **Soil Sampling and Analysis**

The sampling event on October 4 and 5, 2022, included the collection of 33 grab soil samples from the 19 probe locations at the Beacon Island Site in Bethlehem, New York. The samples were collected in general accordance with New York State Department of Environmental Conservation (NYSDEC) soil sampling guidelines. During the sampling event, photoionization detector (PID) readings for the measurable presence of VOC were also collected and recorded.

The locations of the probes were selected based on a Site Plan showing planned locations and additional locations to assess an area of weathered petroleum impact that was encountered. A Probe Location Plan, depicting the approximate core locations, are contained in Attachment A.

To facilitate collection of the soil samples, a truck mounted Geoprobe drill rig was advanced to a depth of 3.5 to 8 feet for locations. Recovered soil material was field classified, in general accordance with ASTM D 2488, and representative material throughout the depth of the core was containerized. In addition to the soil type, soil descriptions included the general moisture content, color, and relative plasticity. Probe Logs are contained in Appendix B.

The samples were collected in clean laboratory glassware, with Teflon-lined lids in accordance with industry standard protocol and applicable NYSDEC guidelines. Disposable sampling equipment (i.e., plastic bags and nitrile gloves) was utilized to collect the samples. Samples were stored in a cooler, with ice, and delivered to the laboratory.

The samples were submitted to Alpha Analytical, located in Westborough, Massachusetts, New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) approved laboratories (ELAP Nos. 11148). The grab samples were laboratory analyzed

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for volatile organic compounds (VOC) in accordance with EPA Method 8260, semi-VOC, in accordance with EPA Method 8270; pesticides, in accordance with EPA Method 8081; polychlorinated biphenyls (PCB), in accordance with EPA Method 8082; and/ or Target Analyte List (TAL) metals. A copy of the laboratory report and associated sample custody documentation for the referenced samples is contained in Attachment C. A tabular summary of laboratory analysis results, with comparison to NYSDEC Unrestricted Use Soil Cleanup Objectives (SCO), are provided in Tables D-1 and D-2 of Attachment D.

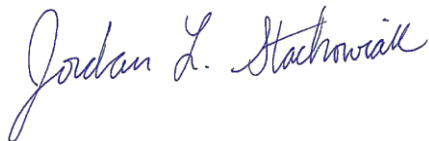
### ***Summary of Findings***

ATL performed sampling at the subject site, for the 19 probe locations, to provide supplemental site data relative to contaminant of concern. Laboratory analysis of the grab soil samples identified detectable concentrations of some VOC, semi-VOC, PCB, pesticides, and metals. Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Indeno(1,2,3-cd)pyrene, Aluminum, Arsenic, Barium, Calcium, Iron, Mercury, Nickel, and Vanadium for certain samples exceeded corresponding standards NYSDEC Unrestricted Use Soil Cleanup Objectives.

It is noted that ATL cannot warrant similar conditions would be encountered in other areas not specifically sampled.

Please contact our office should you have any questions, or if we may be of further assistance.

Sincerely,  
*ATLANTIC TESTING LABORATORIES, Limited*



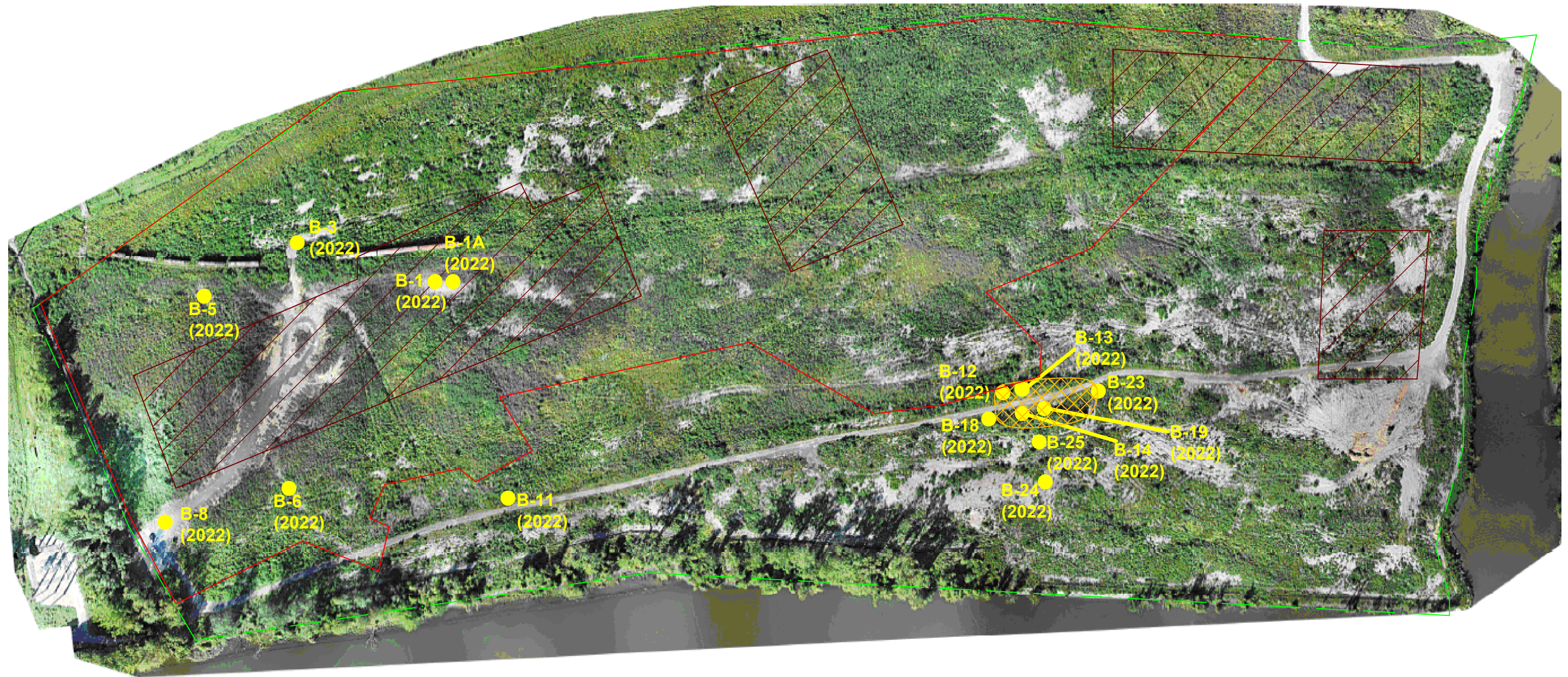
Jordan L. Stachowiak  
Project Scientist

CJD/js






**ATTACHMENT A**


**PROBE LOCATION PLAN**





**LEGEND :**

-  Approximate Location of Soil Sampling Probe
-  Approximate Property Boundary
-  Approximate Extents of Area with Coal Ash
-  Approximate Extents of Area with Weathered Petroleum
-  Approximate Footprint of Proposed Building

<b>Probe Location Plan</b>  Beacon Island Parcel Bethlehem, Albany County, New York	Drawn By:	Drawing:	Scale:	Project No.:	Date :
	CJD	Attachment A	As Noted	AT5596	October 2022
		<b>ATLANTIC TESTING LABORATORIES, Limited</b> <small>Albany, NY Binghamton, NY Canton, NY Elmira, NY Poughkeepsie, NY          Plattsburgh, NY Rochester, NY Syracuse, NY Utica, NY Watertown, NY</small> <small>WBE Certified Company www.AtlanticTesting.com</small>			



**ATTACHMENT B**  
**PROBE LOGS**



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-1  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	45"	0'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)
	ND		0'-2'	Black ASH; some f SAND; some SILT (moist, loose, non-plastic)
1				
2	ND		2'-4'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)
3				
4	ND			* Refusal at 4'



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: **B-1A**  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	45"	0'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)
1	ND		0'-2'	Black ASH; some f SAND; some SILT (moist, loose, non-plastic)
2	ND		2'-4'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)
3				
4	ND	44"	4'-7'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)
5				
6				
7	ND		7'-8'	Black ASH; some f SAND; some SILT (saturated, loose, non-plastic)
8				





# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-3  
PROBE ADVANCED: Geoprobe  
ADVANCEMENT DATE: October 4, 2022  
SOIL SAMPLING CREW: Jonathan Bonno

**Soil Sampling Services  
Beacon Island Site  
Bethlehem New York  
ATL Report No. CD10428CE-02-10-22**

PROBE LOCATION: See Probe Location Plan  
Probe Depth 8 Feet

Classification of Material  
c=course, m=medium, f=fine  
and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	38"	0'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)
1	ND		0'-2'	Black ASH; some f SAND; some SILT (moist, loose, non-plastic)
2	ND		2'-4'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)
3				
4	ND	46"	4'-8'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)
5				
6				
7				
8				



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-5  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material	
0	ND	46'	0'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)	
1	ND		0'-2'	Black ASH; some f SAND; some SILT (moist, loose, non-plastic)	
2	ND		2'-4'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)	
3					
4	ND	43'	4'-8'	Black ASH; some f SAND; some SILT (saturated, loose, non-plastic)	
5					
6					
7					
8					



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-6  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Reading (ppm)	Recovery	Depth	Classification of Material
0	ND	35"	0'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)
	ND		0'-2'	Black ASH; some f SAND; some SILT (moist, loose, non-plastic)
1				
2	ND		2'-4'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)
3				
4	ND	47"	4'-8'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)
5				
6				
7				
8				



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-8  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material	
0	ND	38"	0'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)	
	ND		0'-2'	Black ASH; some f SAND; some SILT (moist, loose, non-plastic)	
1					
2	ND		2'-4'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)	
3					
4	ND	47"	4'-8'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)	
5					
6					
7					
8					



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-9  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	38"	0'-0.5'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)
	ND		0.5'-1.5'	Brown cmf SAND; some mf GRAVEL; trace SILT; trace ORGANIC MATERIAL (moist, loose, non-plastic)
1	ND		1.5'-3.5'	Brown cmf SAND; and cmf GRAVEL; trace SILT (moist, loose, non-plastic)
2				
3				
4				*Refusal at 3.5*



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-11  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	48"	0'-1'	Brown/ Gray CLAY; with some SILT (moist, medium-stiff, very plastic)
1	ND		1'-4'	Black ASH; some f SAND; some SILT (moist, loose, non-plastic)
2				
3				
4	ND	41"	4'-8'	Black ASH; some f SAND; some SILT (moist, loose, non-plastic)
5				
6				
7				
8				



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-12  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material	
0	ND	44"	0'-0.5'	Brown/ Gray TOP SOIL; and cmf GRAVEL (moist, loose, non-plastic)	
	7.6		0.5'-1'	Brown cm SAND; and cm GRAVEL; some CLAY (moist, loose, non-plastic)	
1	7.6		1'-4'	Brown CLAY; and cm SAND and cm GRAVEL; some rock fragments (moist, stiff, plastic)	
2					
3					
4	ND	42"	4'-8'	Brown/ Gray cmf SAND; some CLAY (moist, stiff, plastic)	
5					
6					
7					
8					



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-13  
PROBE ADVANCED: Geoprobe  
ADVANCEMENT DATE: October 4, 2022  
SOIL SAMPLING CREW: Jonathan Bonno

**Soil Sampling Services  
Beacon Island Site  
Bethlehem New York  
ATL Report No. CD10428CE-02-10-22**

PROBE LOCATION: See Probe Location Plan  
Probe Depth 8 Feet

Classification of Material  
c=course, m=medium, f=fine  
and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	7.5	38"	0'-2'	Brown/ Gray cmf SAND; some mf GRAVEL; little CLAY; trace SILT (moist, loose, non-plastic)
1				
2	ND	38"	2'-4'	Gray CLAY; mf SAND; some mf GRAVEL (moist, medium stiff, plastic)
3				
4	ND	12"	4'-5'	Gray CLAY; mf SAND; some mf GRAVEL (moist, medium stiff, plastic)
5				





# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-14  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	47"	0'-0.5'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)
1	36.4		0.5'-2.5'	Brown/Black cmf SAND; some mf GRAVEL; little CLAY; trace SILT (moist, loose, non-plastic)
2	41		2.5'-4'	Gray CLAY; and cmf SAND; some mf GRAVEL(moist, medium stiff, plastic)
3		4'-5'	Gray CLAY; and mf SAND; some mf GRAVEL(moist, stiff, slightly plastic)	
4	26.6	47"	5'-8'	Gray CLAY; some cmf GRAVEL; trace f SAND; trace SILT (moist, very stiff, plastic)
5	0.5			
6				
7				
8				



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-15  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 4 Feet

**Soil Sampling Services**  
**Beacon Island Site**  
**Bethlehem New York**  
**ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	46"	0'-0.5'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)
	ND		0.5'-1'	Brown cmf SAND; and mf GRAVEL; little CLAY; trace SILT (moist, loose, non-plastic)
1	ND		1'-4'	Brown CLAY; some mf GRAVEL; some cmf SAND (moist, soft, slighty plastic)
2				
3				
4				



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-18  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 5, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 8 Feet

**Soil Sampling Services**  
**Beacon Island Site**  
**Bethlehem New York**  
**ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	45"	0'-0.5'	Brown/Black ORGANIC MATERIAL (moist, loose, non-plastic)
1	ND		0.5'-2.5'	Brown/Black cmf SAND; some mf GRAVEL; trace SILT (wet, loose, non-plastic)
2	ND		2.5'-4'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT(wet, medium stiff, plastic)
3		4'-6'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT(wet, medium stiff, plastic)	
4	ND	48"	6'-8'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT(saturated, stiff, very plastic)
5				
6				
7				
8				



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-19  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 5, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings	Recovery	Depth	Classification of Material
0	ND	47"	0'-0.5'	Brown/Black ORGANIC MATERIAL (moist, loose, non-plastic)
	31.3		0.5'-2.5'	Brown/Black cmf SAND; some mf GRAVEL; trace SILT (wet, loose, non-plastic)
1				
2				
	13.4		2.5'-4'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT(moist, medium stiff, plastic)
3				
4	10.5	47"	4'-6'	Gray CLAY; some mf GRAVEL; little SAND; trace SILT(moist, medium stiff, plastic)
5				
6	ND		6'-8'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT(moist, stiff, very plastic)
7				
8				



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-20  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 5,2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	3.7	47"	0'-0.5'	Brown/Black ORGANIC MATERIAL (moist, loose, non-plastic)
	71.1		0.5'-1.5'	Brown/Black cmf SAND; some mf GRAVEL; trace SILT (wet, loose, non-plastic)
1	71.1		1.5'-4'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT (moist, medium stiff, plastic)
2				
3				
4	71.4	47"	4'-6'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT(moist, stiff, very plastic)
5				
6	6.7		6'-8'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT(moist, stiff, very plastic)
7				
8				



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-21  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 5,2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	1	47"	0'-0.5'	Brown/Black ORGANIC MATERIAL (moist, loose, non-plastic)
	1		0.5'-1'	Brown/Black cmf GRAVEL and cmf SAND (moist, loose, non-plastic)
1	1		1'-2'	Black/Brown cmf SAND; some mf GRAVEL; little SILT (moist, medium stiff, very plastic)
2	12.5		2'-4'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT(wet, medium stiff, very plastic)
3		47"		
4	ND		4'-6'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT(wet, medium stiff, very plastic)
5				
6	ND		6'-8'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT(wet, stiff, very plastic)
7				
8				



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-22  
PROBE ADVANCED: Geoprobe  
ADVANCEMENT DATE: October 4,2022  
SOIL SAMPLING CREW: Jonathan Bonno

PROBE LOCATION: See Probe Location Plan  
Probe Depth 4 Feet

**Soil Sampling Services  
Beacon Island Site  
Bethlehem New York  
ATL Report No. CD10428CE-02-10-22**

Classification of Material  
c=course, m=medium, f=fine  
and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	46"	0'-2'	Dark Brown cmf SANDand cmf GRAVEL; little SILT; trace CLAY (moist, loose, non-plastic)
1				
2	18.9		2'-3'	Dark Brown mf SAND; some mf GRAVEL; little SILT; trace CLAY (moist, loose, non-plastic)
3	22.6		3'-4'	Gray CLAY; some cmf GRAVEL; little mf SAND; trace SILT (wet, medium stiff, very plastic)
4				



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: **B-23**  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 5,2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	45"	0'-1'	Brown cmf SAND; and mf GRAVEL; trace CLAY (moist, loose, non-plastic)
1	ND		1'-2'	Gray CLAY; some mf SAND; some mf GRAVEL (moist, stiff, plastic)
2	4.7		2'-6'	Dark Gray mf SAND; and CLAY, some mf GRAVEL; trace SILT (wet, loose, non-plastic)
3				
4	3.4	48"	4'-6'	Dark Gray mf SAND; and CLAY, some mf GRAVEL; trace SILT (wet, loose, non-plastic)
5				
6	ND		6'-8'	Gray CLAY; some mf GRAVEL; little mf SAND; trace SILT(saturated, stiff, very plastic)
7				
8				





# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-24  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 5,2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	45"	0'-0.5'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)
	ND		0.5'-4'	Brown cmf SAND; some mf GRAVEL; some CLAY (moist, medium stiff, plastic)
1				
2				
3				
4	ND	48"	4'-4.5'	Brown cmf SAND; some mf GRAVEL; some CLAY (wet, medium stiff, plastic)
	ND		4.5'-8'	Brown cmf SAND; some cmf GRAVEL; trace SILT; trace CLAY (wet, stiff, non-plastic)
5				
6				
7				
8				



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-25  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 5,2022  
 SOIL SAMPLING CREW: Jonathan Bonno  
 PROBE LOCATION: See Probe Location Plan  
 Probe Depth 8 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-02-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	PID Readings (ppm)	Recovery	Depth	Classification of Material
0	ND	45"	0'-0.5'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)
	ND		0.5'-3.5'	Brown cmf SAND; some mf GRAVEL; little CLAY (moist, medium stiff, plastic)
1		48"		
2				
3	ND		3.5'-4'	Brown CLAY; some mf GRAVEL; some mf SAND; trace SILT (wet, medium stiff, plastic)
4			4'-6'	Brown CLAY; some mf GRAVEL; some mf SAND; trace SILT (wet, medium stiff, plastic)
5		48"		
6	ND		6'-8'	Brown cmf SAND; some cmf GRAVEL; trace SILT (moist, loose, non-plastic)
7				
8				

**ATTACHMENT C**  
**LABORATORY REPORT AND**  
**ASSOCIATED SAMPLE CUSTODY DOCUMENTATION**



## ANALYTICAL REPORT

Lab Number:	L2254892
Client:	Atlantic Testing Laboratories, Limited 6431 US Highway 11 PO Box 29 Canton, NY 13617
ATTN:	Cheyenne Dashnaw
Phone:	(315) 386-4578
Project Name:	BEACON ISLAND SITE
Project Number:	CD10428
Report Date:	10/11/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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).

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



Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2254892

Report Date: 10/11/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2254892-01	CD10428SS01	SOIL	BEACON ISLAND, NY	10/04/22 11:30	10/04/22
L2254892-02	CD10428SS02	SOIL	BEACON ISLAND, NY	10/04/22 11:37	10/04/22
L2254892-03	CD10428SS03	SOIL	BEACON ISLAND, NY	10/04/22 11:40	10/04/22
L2254892-04	CD10428SS04	SOIL	BEACON ISLAND, NY	10/04/22 11:45	10/04/22
L2254892-05	CD10428SS05	SOIL	BEACON ISLAND, NY	10/04/22 12:16	10/04/22
L2254892-06	CD10428SS06	SOIL	BEACON ISLAND, NY	10/04/22 12:25	10/04/22
L2254892-07	CD10428SS07	SOIL	BEACON ISLAND, NY	10/04/22 12:35	10/04/22
L2254892-08	CD10428SS08	SOIL	BEACON ISLAND, NY	10/04/22 12:57	10/04/22
L2254892-09	CD10428SS09	SOIL	BEACON ISLAND, NY	10/04/22 13:05	10/04/22
L2254892-10	CD10428SS10	SOIL	BEACON ISLAND, NY	10/04/22 13:14	10/04/22
L2254892-11	CD10428SS11	SOIL	BEACON ISLAND, NY	10/04/22 13:33	10/04/22
L2254892-12	CD10428SS12	SOIL	BEACON ISLAND, NY	10/04/22 13:40	10/04/22
L2254892-13	CD10428SS13	SOIL	BEACON ISLAND, NY	10/04/22 13:47	10/04/22
L2254892-14	CD10428SS14	SOIL	BEACON ISLAND, NY	10/04/22 14:00	10/04/22
L2254892-15	CD10428SS15	SOIL	BEACON ISLAND, NY	10/04/22 14:02	10/04/22
L2254892-16	CD10428SS16	SOIL	BEACON ISLAND, NY	10/04/22 14:04	10/04/22
L2254892-17	CD10428SS17	SOIL	BEACON ISLAND, NY	10/04/22 15:00	10/04/22
L2254892-18	CD10428SS18	SOIL	BEACON ISLAND, NY	10/04/22 15:02	10/04/22
L2254892-19	CD10428SS19	SOIL	BEACON ISLAND, NY	10/04/22 15:03	10/04/22
L2254892-20	CD10428SS20	SOIL	BEACON ISLAND, NY	10/04/22 15:26	10/04/22
L2254892-21	CD10428SS21	SOIL	BEACON ISLAND, NY	10/04/22 15:31	10/04/22
L2254892-22	CD10428SS22	SOIL	BEACON ISLAND, NY	10/04/22 15:35	10/04/22
L2254892-23	CD10428SS23	SOIL	BEACON ISLAND, NY	10/04/22 15:44	10/04/22
L2254892-24	CD10428SS24	SOIL	BEACON ISLAND, NY	10/04/22 15:55	10/04/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2254892-25	CD10428SS25	SOIL	BEACON ISLAND, NY	10/04/22 16:02	10/04/22



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

### 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.

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**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

### 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

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

L2254892-23: The internal standard (IS) response for 1,4-dichlorobenzene-d4 (47%) was below the acceptance criteria; however, re-analysis achieved the following result: 1,4-dichlorobenzene-d4 (49%). The results of both analyses are reported.

L2254892-24: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (222%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

#### Total Metals

L2254892-01 through -22: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1695953-3 MS recoveries for aluminum (601%), iron (641%), and vanadium (0%), performed on L2254892-01, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1695953-3 MS recoveries, performed on L2254892-01, are outside the acceptance criteria for antimony (57%), cobalt (66%), lead (72%), silver (74%), thallium (52%), and zinc (74%). A post digestion spike was performed and yielded unacceptable recoveries for antimony (72%), cobalt (70%), lead (70%), silver (61%), thallium (59%), and zinc (68%). The serial dilution recoveries were not applicable; therefore, these elements fail the matrix test and the results reported in the native sample should be considered estimated.

The WG1695953-3 MS recoveries, performed on L2254892-01, are outside the acceptance criteria for arsenic (64%), magnesium (68%), manganese (71%), and nickel (74%). A post digestion spike was performed and



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Case Narrative (continued)**


yielded unacceptable recoveries for arsenic (73%), magnesium (70%), manganese (65%), and nickel (60%). The serial dilution recoveries were not acceptable; therefore, these elements fail the matrix test and the results reported in the native sample should be considered estimated.

The WG1695953-3 MS recovery, performed on L2254892-01, is outside the acceptance criteria for selenium (65%). A post digestion spike was performed and was within acceptance criteria.

The WG1695953-6 serial dilution analysis, associated with L2254892-01, had a %D above the acceptance criteria for arsenic (134%), magnesium (142%), manganese (138%), and nickel (142%).

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:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 10/11/22

# ORGANICS

# VOLATILES

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-20  
 Client ID: CD10428SS20  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:26  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/11/22 12:14  
 Analyst: NLK  
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	ND		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.70	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17	1
Benzene	ND		ug/kg	0.50	0.17	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.93	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-20  
**Client ID:** CD10428SS20  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:26  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.0	0.24	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.92	1
Acetone	12		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	ND		ug/kg	10	2.2	1
Vinyl acetate	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	0.92	J	ug/kg	4.0	0.65	1
Acrylonitrile	ND		ug/kg	4.0	1.2	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-20  
 Client ID: CD10428SS20  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:26  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.0	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
1,4-Dioxane	ND		ug/kg	80	35.	1
p-Diethylbenzene	0.38	J	ug/kg	2.0	0.18	1
p-Ethyltoluene	ND		ug/kg	2.0	0.38	1
1,2,4,5-Tetramethylbenzene	0.78	J	ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.34	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	97		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-21  
 Client ID: CD10428SS21  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:31  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/11/22 12:35  
 Analyst: NLK  
 Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.8	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.14	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.58	0.23	1
Chlorobenzene	ND		ug/kg	0.58	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.6	0.80	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	0.19	1
Bromodichloromethane	ND		ug/kg	0.58	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.58	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.58	0.18	1
Bromoform	ND		ug/kg	4.6	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	0.19	1
Benzene	ND		ug/kg	0.58	0.19	1
Toluene	ND		ug/kg	1.2	0.63	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.6	1.1	1
Bromomethane	ND		ug/kg	2.3	0.67	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.52	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-21  
**Client ID:** CD10428SS21  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:31  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.58	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.65	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.27	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.0	1
Acetone	12		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.2	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.5	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.32	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.58	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.19	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.3	0.14	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.6	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.12	1
Naphthalene	ND		ug/kg	4.6	0.75	1
Acrylonitrile	ND		ug/kg	4.6	1.3	1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-21  
**Client ID:** CD10428SS21  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:31  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.37	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.31	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.38	1
1,4-Dioxane	ND		ug/kg	92	40.	1
p-Diethylbenzene	ND		ug/kg	2.3	0.20	1
p-Ethyltoluene	ND		ug/kg	2.3	0.44	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.3	0.22	1
Ethyl ether	0.67	J	ug/kg	2.3	0.39	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	120		70-130
Dibromofluoromethane	95		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-23  
 Client ID: CD10428SS23  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:44  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/11/22 10:51  
 Analyst: NLK  
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.2	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	ND		ug/kg	0.52	0.20	1
Chlorobenzene	ND		ug/kg	0.52	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.72	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	0.17	1
Bromodichloromethane	ND		ug/kg	0.52	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
cis-1,3-Dichloropropene	ND		ug/kg	0.52	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.52	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.52	0.16	1
Bromoform	ND		ug/kg	4.2	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.52	0.17	1
Benzene	0.24	J	ug/kg	0.52	0.17	1
Toluene	ND		ug/kg	1.0	0.56	1
Ethylbenzene	0.15	J	ug/kg	1.0	0.15	1
Chloromethane	ND		ug/kg	4.2	0.97	1
Bromomethane	ND		ug/kg	2.1	0.60	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
Chloroethane	ND		ug/kg	2.1	0.47	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-23  
**Client ID:** CD10428SS23  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:44  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.52	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.58	1
o-Xylene	ND		ug/kg	1.0	0.30	1
Xylenes, Total	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.1	0.25	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.95	1
Acetone	ND		ug/kg	10	5.0	1
Carbon disulfide	ND		ug/kg	10	4.7	1
2-Butanone	ND		ug/kg	10	2.3	1
Vinyl acetate	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.21	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.52	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.15	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.1	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.2	0.18	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.2	0.68	1
Acrylonitrile	ND		ug/kg	4.2	1.2	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-23  
**Client ID:** CD10428SS23  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:44  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.35	1
1,4-Dioxane	ND		ug/kg	83	36.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.18	1
p-Ethyltoluene	ND		ug/kg	2.1	0.40	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.35	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.2	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	126		70-130
Dibromofluoromethane	95		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-23 R  
 Client ID: CD10428SS23  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:44  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/11/22 12:56  
 Analyst: NLK  
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.2	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	ND		ug/kg	0.52	0.20	1
Chlorobenzene	ND		ug/kg	0.52	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.1	0.72	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	0.17	1
Bromodichloromethane	ND		ug/kg	0.52	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
cis-1,3-Dichloropropene	ND		ug/kg	0.52	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.52	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.52	0.16	1
Bromoform	ND		ug/kg	4.1	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.52	0.17	1
Benzene	0.22	J	ug/kg	0.52	0.17	1
Toluene	ND		ug/kg	1.0	0.56	1
Ethylbenzene	0.15	J	ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.1	0.96	1
Bromomethane	ND		ug/kg	2.1	0.60	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
Chloroethane	ND		ug/kg	2.1	0.47	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-23 R  
 Client ID: CD10428SS23  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:44  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.52	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.58	1
o-Xylene	ND		ug/kg	1.0	0.30	1
Xylenes, Total	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.1	0.25	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.94	1
Acetone	ND		ug/kg	10	5.0	1
Carbon disulfide	ND		ug/kg	10	4.7	1
2-Butanone	ND		ug/kg	10	2.3	1
Vinyl acetate	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.21	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.52	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.15	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.1	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.1	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.1	0.67	1
Acrylonitrile	ND		ug/kg	4.1	1.2	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-23 R  
 Client ID: CD10428SS23  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:44  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.33	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.34	1
1,4-Dioxane	ND		ug/kg	83	36.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.18	1
p-Ethyltoluene	ND		ug/kg	2.1	0.40	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.35	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.2	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	124		70-130
Dibromofluoromethane	95		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-24  
 Client ID: CD10428SS24  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:55  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/11/22 11:32  
 Analyst: NLK  
 Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	280	130	1
1,1-Dichloroethane	ND		ug/kg	56	8.1	1
Chloroform	ND		ug/kg	84	7.8	1
Carbon tetrachloride	ND		ug/kg	56	13.	1
1,2-Dichloropropane	ND		ug/kg	56	7.0	1
Dibromochloromethane	ND		ug/kg	56	7.8	1
1,1,2-Trichloroethane	ND		ug/kg	56	15.	1
Tetrachloroethene	ND		ug/kg	28	11.	1
Chlorobenzene	ND		ug/kg	28	7.1	1
Trichlorofluoromethane	ND		ug/kg	220	39.	1
1,2-Dichloroethane	ND		ug/kg	56	14.	1
1,1,1-Trichloroethane	ND		ug/kg	28	9.3	1
Bromodichloromethane	ND		ug/kg	28	6.1	1
trans-1,3-Dichloropropene	ND		ug/kg	56	15.	1
cis-1,3-Dichloropropene	ND		ug/kg	28	8.8	1
1,3-Dichloropropene, Total	ND		ug/kg	28	8.8	1
1,1-Dichloropropene	ND		ug/kg	28	8.8	1
Bromoform	ND		ug/kg	220	14.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	28	9.2	1
Benzene	100		ug/kg	28	9.2	1
Toluene	72		ug/kg	56	30.	1
Ethylbenzene	2400		ug/kg	56	7.8	1
Chloromethane	ND		ug/kg	220	52.	1
Bromomethane	ND		ug/kg	110	32.	1
Vinyl chloride	ND		ug/kg	56	19.	1
Chloroethane	ND		ug/kg	110	25.	1
1,1-Dichloroethene	ND		ug/kg	56	13.	1
trans-1,2-Dichloroethene	ND		ug/kg	84	7.6	1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-24  
**Client ID:** CD10428SS24  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:55  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	28	7.6	1
1,2-Dichlorobenzene	ND		ug/kg	110	8.0	1
1,3-Dichlorobenzene	ND		ug/kg	110	8.2	1
1,4-Dichlorobenzene	ND		ug/kg	110	9.5	1
Methyl tert butyl ether	ND		ug/kg	110	11.	1
p/m-Xylene	950		ug/kg	110	31.	1
o-Xylene	1300		ug/kg	56	16.	1
Xylenes, Total	2300		ug/kg	56	16.	1
cis-1,2-Dichloroethene	ND		ug/kg	56	9.7	1
1,2-Dichloroethene, Total	ND		ug/kg	56	7.6	1
Dibromomethane	ND		ug/kg	110	13.	1
Styrene	ND		ug/kg	56	11.	1
Dichlorodifluoromethane	ND		ug/kg	560	51.	1
Acetone	ND		ug/kg	560	270	1
Carbon disulfide	ND		ug/kg	560	250	1
2-Butanone	ND		ug/kg	560	120	1
Vinyl acetate	ND		ug/kg	560	120	1
4-Methyl-2-pentanone	ND		ug/kg	560	71.	1
1,2,3-Trichloropropane	ND		ug/kg	110	7.1	1
2-Hexanone	ND		ug/kg	560	66.	1
Bromochloromethane	ND		ug/kg	110	11.	1
2,2-Dichloropropane	ND		ug/kg	110	11.	1
1,2-Dibromoethane	ND		ug/kg	56	16.	1
1,3-Dichloropropane	ND		ug/kg	110	9.3	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	28	7.4	1
Bromobenzene	ND		ug/kg	110	8.1	1
n-Butylbenzene	1800		ug/kg	56	9.3	1
sec-Butylbenzene	870		ug/kg	56	8.1	1
tert-Butylbenzene	ND		ug/kg	110	6.6	1
o-Chlorotoluene	ND		ug/kg	110	11.	1
p-Chlorotoluene	ND		ug/kg	110	6.0	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	170	56.	1
Hexachlorobutadiene	ND		ug/kg	220	9.4	1
Isopropylbenzene	970		ug/kg	56	6.1	1
p-Isopropyltoluene	1200		ug/kg	56	6.1	1
Naphthalene	7900		ug/kg	220	36.	1
Acrylonitrile	ND		ug/kg	220	64.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-24  
**Client ID:** CD10428SS24  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:55  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	2400		ug/kg	56	9.5	1
1,2,3-Trichlorobenzene	ND		ug/kg	110	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	110	15.	1
1,3,5-Trimethylbenzene	4500		ug/kg	110	11.	1
1,2,4-Trimethylbenzene	19000	E	ug/kg	110	18.	1
1,4-Dioxane	ND		ug/kg	4400	2000	1
p-Diethylbenzene	ND		ug/kg	110	9.8	1
p-Ethyltoluene	7200		ug/kg	110	21.	1
1,2,4,5-Tetramethylbenzene	4400		ug/kg	110	11.	1
Ethyl ether	ND		ug/kg	110	19.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	280	79.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	<b>222</b>	Q	70-130
Dibromofluoromethane	85		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-24 D  
 Client ID: CD10428SS24  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:55  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/11/22 11:53  
 Analyst: NLK  
 Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	23000		ug/kg	1100	180	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	93		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-25  
 Client ID: CD10428SS25  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 16:02  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/11/22 11:12  
 Analyst: NLK  
 Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.9	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.59	0.23	1
Chlorobenzene	ND		ug/kg	0.59	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.7	0.82	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.59	0.20	1
Bromodichloromethane	ND		ug/kg	0.59	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.59	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.59	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.59	0.19	1
Bromoform	ND		ug/kg	4.7	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.59	0.20	1
Benzene	ND		ug/kg	0.59	0.20	1
Toluene	ND		ug/kg	1.2	0.64	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.7	1.1	1
Bromomethane	ND		ug/kg	2.4	0.68	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.4	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-25  
**Client ID:** CD10428SS25  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 16:02  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.59	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.66	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	31		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.4	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.5	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.59	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.22	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.7	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.7	0.76	1
Acrylonitrile	ND		ug/kg	4.7	1.4	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-25  
**Client ID:** CD10428SS25  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 16:02  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.39	1
1,4-Dioxane	ND		ug/kg	94	41.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.21	1
p-Ethyltoluene	ND		ug/kg	2.4	0.45	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.22	1
Ethyl ether	ND		ug/kg	2.4	0.40	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.9	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	100		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 09:05  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 20-21,23,25 Batch: WG1698052-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 09:05  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 20-21,23,25 Batch: WG1698052-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 09:05  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 20-21,23,25 Batch: WG1698052-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	97		70-130

**Project Name:** BEACON ISLAND SITE  
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**Lab Number:** L2254892  
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**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 09:05  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 24 Batch: WG1698053-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

**Project Name:** BEACON ISLAND SITE  
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**Lab Number:** L2254892  
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**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 09:05  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 24 Batch: WG1698053-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6

**Project Name:** BEACON ISLAND SITE  
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**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 09:05  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 24 Batch: WG1698053-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	4000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	97		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

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Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 20-21,23,25 Batch: WG1698052-3 WG1698052-4								
Methylene chloride	95		96		70-130	1		30
1,1-Dichloroethane	94		96		70-130	2		30
Chloroform	105		106		70-130	1		30
Carbon tetrachloride	107		110		70-130	3		30
1,2-Dichloropropane	90		93		70-130	3		30
Dibromochloromethane	105		106		70-130	1		30
1,1,2-Trichloroethane	97		96		70-130	1		30
Tetrachloroethene	107		106		70-130	1		30
Chlorobenzene	103		102		70-130	1		30
Trichlorofluoromethane	117		118		70-139	1		30
1,2-Dichloroethane	113		115		70-130	2		30
1,1,1-Trichloroethane	111		113		70-130	2		30
Bromodichloromethane	102		104		70-130	2		30
trans-1,3-Dichloropropene	106		104		70-130	2		30
cis-1,3-Dichloropropene	108		109		70-130	1		30
1,1-Dichloropropene	104		106		70-130	2		30
Bromoform	98		97		70-130	1		30
1,1,2,2-Tetrachloroethane	88		86		70-130	2		30
Benzene	100		100		70-130	0		30
Toluene	98		96		70-130	2		30
Ethylbenzene	101		100		70-130	1		30
Chloromethane	70		72		52-130	3		30
Bromomethane	120		122		57-147	2		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 20-21,23,25 Batch: WG1698052-3 WG1698052-4								
Vinyl chloride	84		87		67-130	4		30
Chloroethane	87		88		50-151	1		30
1,1-Dichloroethene	102		104		65-135	2		30
trans-1,2-Dichloroethene	98		95		70-130	3		30
Trichloroethene	102		104		70-130	2		30
1,2-Dichlorobenzene	100		98		70-130	2		30
1,3-Dichlorobenzene	98		96		70-130	2		30
1,4-Dichlorobenzene	100		96		70-130	4		30
Methyl tert butyl ether	105		108		66-130	3		30
p/m-Xylene	104		102		70-130	2		30
o-Xylene	106		103		70-130	3		30
cis-1,2-Dichloroethene	99		100		70-130	1		30
Dibromomethane	110		111		70-130	1		30
Styrene	105		104		70-130	1		30
Dichlorodifluoromethane	92		95		30-146	3		30
Acetone	91		92		54-140	1		30
Carbon disulfide	97		98		59-130	1		30
2-Butanone	77		75		70-130	3		30
Vinyl acetate	85		83		70-130	2		30
4-Methyl-2-pentanone	85		84		70-130	1		30
1,2,3-Trichloropropane	98		95		68-130	3		30
2-Hexanone	84		83		70-130	1		30
Bromochloromethane	104		104		70-130	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 20-21,23,25 Batch: WG1698052-3 WG1698052-4								
2,2-Dichloropropane	104		106		70-130	2		30
1,2-Dibromoethane	106		105		70-130	1		30
1,3-Dichloropropane	102		102		69-130	0		30
1,1,1,2-Tetrachloroethane	109		107		70-130	2		30
Bromobenzene	97		96		70-130	1		30
n-Butylbenzene	98		97		70-130	1		30
sec-Butylbenzene	94		92		70-130	2		30
tert-Butylbenzene	94		92		70-130	2		30
o-Chlorotoluene	93		91		70-130	2		30
p-Chlorotoluene	98		96		70-130	2		30
1,2-Dibromo-3-chloropropane	90		91		68-130	1		30
Hexachlorobutadiene	103		100		67-130	3		30
Isopropylbenzene	94		92		70-130	2		30
p-Isopropyltoluene	95		94		70-130	1		30
Naphthalene	96		94		70-130	2		30
Acrylonitrile	76		79		70-130	4		30
n-Propylbenzene	95		93		70-130	2		30
1,2,3-Trichlorobenzene	104		102		70-130	2		30
1,2,4-Trichlorobenzene	105		102		70-130	3		30
1,3,5-Trimethylbenzene	98		95		70-130	3		30
1,2,4-Trimethylbenzene	98		95		70-130	3		30
1,4-Dioxane	108		108		65-136	0		30
p-Diethylbenzene	95		93		70-130	2		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2254892

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 20-21,23,25 Batch: WG1698052-3 WG1698052-4								
p-Ethyltoluene	96		94		70-130	2		30
1,2,4,5-Tetramethylbenzene	100		97		70-130	3		30
Ethyl ether	100		103		67-130	3		30
trans-1,4-Dichloro-2-butene	89		86		70-130	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	109		112		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	96		95		70-130
Dibromofluoromethane	98		98		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 24 Batch: WG1698053-3 WG1698053-4								
Methylene chloride	95		96		70-130	1		30
1,1-Dichloroethane	94		96		70-130	2		30
Chloroform	105		106		70-130	1		30
Carbon tetrachloride	107		110		70-130	3		30
1,2-Dichloropropane	90		93		70-130	3		30
Dibromochloromethane	105		106		70-130	1		30
1,1,2-Trichloroethane	97		96		70-130	1		30
Tetrachloroethene	107		106		70-130	1		30
Chlorobenzene	103		102		70-130	1		30
Trichlorofluoromethane	117		118		70-139	1		30
1,2-Dichloroethane	113		115		70-130	2		30
1,1,1-Trichloroethane	111		113		70-130	2		30
Bromodichloromethane	102		104		70-130	2		30
trans-1,3-Dichloropropene	106		104		70-130	2		30
cis-1,3-Dichloropropene	108		109		70-130	1		30
1,1-Dichloropropene	104		106		70-130	2		30
Bromoform	98		97		70-130	1		30
1,1,2,2-Tetrachloroethane	88		86		70-130	2		30
Benzene	100		100		70-130	0		30
Toluene	98		96		70-130	2		30
Ethylbenzene	101		100		70-130	1		30
Chloromethane	70		72		52-130	3		30
Bromomethane	120		122		57-147	2		30

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Lab Number:** L2254892

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Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 24 Batch: WG1698053-3 WG1698053-4								
Vinyl chloride	84		87		67-130	4		30
Chloroethane	87		88		50-151	1		30
1,1-Dichloroethene	102		104		65-135	2		30
trans-1,2-Dichloroethene	98		95		70-130	3		30
Trichloroethene	102		104		70-130	2		30
1,2-Dichlorobenzene	100		98		70-130	2		30
1,3-Dichlorobenzene	98		96		70-130	2		30
1,4-Dichlorobenzene	100		96		70-130	4		30
Methyl tert butyl ether	105		108		66-130	3		30
p/m-Xylene	104		102		70-130	2		30
o-Xylene	106		103		70-130	3		30
cis-1,2-Dichloroethene	99		100		70-130	1		30
Dibromomethane	110		111		70-130	1		30
Styrene	105		104		70-130	1		30
Dichlorodifluoromethane	92		95		30-146	3		30
Acetone	91		92		54-140	1		30
Carbon disulfide	97		98		59-130	1		30
2-Butanone	77		75		70-130	3		30
Vinyl acetate	85		83		70-130	2		30
4-Methyl-2-pentanone	85		84		70-130	1		30
1,2,3-Trichloropropane	98		95		68-130	3		30
2-Hexanone	84		83		70-130	1		30
Bromochloromethane	104		104		70-130	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 24 Batch: WG1698053-3 WG1698053-4								
2,2-Dichloropropane	104		106		70-130	2		30
1,2-Dibromoethane	106		105		70-130	1		30
1,3-Dichloropropane	102		102		69-130	0		30
1,1,1,2-Tetrachloroethane	109		107		70-130	2		30
Bromobenzene	97		96		70-130	1		30
n-Butylbenzene	98		97		70-130	1		30
sec-Butylbenzene	94		92		70-130	2		30
tert-Butylbenzene	94		92		70-130	2		30
o-Chlorotoluene	93		91		70-130	2		30
p-Chlorotoluene	98		96		70-130	2		30
1,2-Dibromo-3-chloropropane	90		91		68-130	1		30
Hexachlorobutadiene	103		100		67-130	3		30
Isopropylbenzene	94		92		70-130	2		30
p-Isopropyltoluene	95		94		70-130	1		30
Naphthalene	96		94		70-130	2		30
Acrylonitrile	76		79		70-130	4		30
n-Propylbenzene	95		93		70-130	2		30
1,2,3-Trichlorobenzene	104		102		70-130	2		30
1,2,4-Trichlorobenzene	105		102		70-130	3		30
1,3,5-Trimethylbenzene	98		95		70-130	3		30
1,2,4-Trimethylbenzene	98		95		70-130	3		30
1,4-Dioxane	108		108		65-136	0		30
p-Diethylbenzene	95		93		70-130	2		30

## Lab Control Sample Analysis

### Batch Quality Control

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 24 Batch: WG1698053-3 WG1698053-4								
p-Ethyltoluene	96		94		70-130	2		30
1,2,4,5-Tetramethylbenzene	100		97		70-130	3		30
Ethyl ether	100		103		67-130	3		30
trans-1,4-Dichloro-2-butene	89		86		70-130	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	109		112		70-130
Toluene-d8	99		98		70-130
4-Bromofluorobenzene	96		95		70-130
Dibromofluoromethane	98		98		70-130

# SEMIVOLATILES

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-01  
 Client ID: CD10428SS01  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:30  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 10:17  
 Analyst: IM  
 Percent Solids: 63%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	210	27.	1
1,2,4-Trichlorobenzene	ND		ug/kg	260	30.	1
Hexachlorobenzene	ND		ug/kg	160	29.	1
Bis(2-chloroethyl)ether	ND		ug/kg	230	35.	1
2-Chloronaphthalene	ND		ug/kg	260	26.	1
1,2-Dichlorobenzene	ND		ug/kg	260	47.	1
1,3-Dichlorobenzene	ND		ug/kg	260	45.	1
1,4-Dichlorobenzene	ND		ug/kg	260	45.	1
3,3'-Dichlorobenzidine	ND		ug/kg	260	69.	1
2,4-Dinitrotoluene	ND		ug/kg	260	52.	1
2,6-Dinitrotoluene	ND		ug/kg	260	45.	1
Fluoranthene	ND		ug/kg	160	30.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	260	28.	1
4-Bromophenyl phenyl ether	ND		ug/kg	260	40.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	310	44.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	280	26.	1
Hexachlorobutadiene	ND		ug/kg	260	38.	1
Hexachlorocyclopentadiene	ND		ug/kg	740	240	1
Hexachloroethane	ND		ug/kg	210	42.	1
Isophorone	ND		ug/kg	230	34.	1
Naphthalene	ND		ug/kg	260	32.	1
Nitrobenzene	ND		ug/kg	230	38.	1
NDPA/DPA	ND		ug/kg	210	30.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	260	40.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	260	90.	1
Butyl benzyl phthalate	ND		ug/kg	260	66.	1
Di-n-butylphthalate	ND		ug/kg	260	49.	1
Di-n-octylphthalate	ND		ug/kg	260	88.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-01  
 Client ID: CD10428SS01  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:30  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	260	24.	1
Dimethyl phthalate	ND		ug/kg	260	54.	1
Benzo(a)anthracene	ND		ug/kg	160	29.	1
Benzo(a)pyrene	ND		ug/kg	210	63.	1
Benzo(b)fluoranthene	ND		ug/kg	160	44.	1
Benzo(k)fluoranthene	ND		ug/kg	160	42.	1
Chrysene	ND		ug/kg	160	27.	1
Acenaphthylene	ND		ug/kg	210	40.	1
Anthracene	ND		ug/kg	160	51.	1
Benzo(ghi)perylene	34	J	ug/kg	210	30.	1
Fluorene	ND		ug/kg	260	25.	1
Phenanthrene	ND		ug/kg	160	32.	1
Dibenzo(a,h)anthracene	ND		ug/kg	160	30.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	210	36.	1
Pyrene	ND		ug/kg	160	26.	1
Biphenyl	ND		ug/kg	590	34.	1
4-Chloroaniline	ND		ug/kg	260	47.	1
2-Nitroaniline	ND		ug/kg	260	50.	1
3-Nitroaniline	ND		ug/kg	260	49.	1
4-Nitroaniline	ND		ug/kg	260	110	1
Dibenzofuran	ND		ug/kg	260	24.	1
2-Methylnaphthalene	ND		ug/kg	310	31.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	260	27.	1
Acetophenone	ND		ug/kg	260	32.	1
Benzyl Alcohol	ND		ug/kg	260	80.	1
Carbazole	ND		ug/kg	260	25.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	70		30-120
4-Terphenyl-d14	50		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-02  
 Client ID: CD10428SS02  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:37  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 10:41  
 Analyst: IM  
 Percent Solids: 56%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	240	30.	1
1,2,4-Trichlorobenzene	ND		ug/kg	290	34.	1
Hexachlorobenzene	ND		ug/kg	180	33.	1
Bis(2-chloroethyl)ether	ND		ug/kg	260	40.	1
2-Chloronaphthalene	ND		ug/kg	290	29.	1
1,2-Dichlorobenzene	ND		ug/kg	290	53.	1
1,3-Dichlorobenzene	ND		ug/kg	290	51.	1
1,4-Dichlorobenzene	ND		ug/kg	290	52.	1
3,3'-Dichlorobenzidine	ND		ug/kg	290	78.	1
2,4-Dinitrotoluene	ND		ug/kg	290	59.	1
2,6-Dinitrotoluene	ND		ug/kg	290	51.	1
Fluoranthene	ND		ug/kg	180	34.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	290	32.	1
4-Bromophenyl phenyl ether	ND		ug/kg	290	45.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	350	50.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	320	30.	1
Hexachlorobutadiene	ND		ug/kg	290	43.	1
Hexachlorocyclopentadiene	ND		ug/kg	840	270	1
Hexachloroethane	ND		ug/kg	240	48.	1
Isophorone	ND		ug/kg	260	38.	1
Naphthalene	ND		ug/kg	290	36.	1
Nitrobenzene	ND		ug/kg	260	44.	1
NDPA/DPA	ND		ug/kg	240	34.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	290	46.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	290	100	1
Butyl benzyl phthalate	ND		ug/kg	290	74.	1
Di-n-butylphthalate	ND		ug/kg	290	56.	1
Di-n-octylphthalate	ND		ug/kg	290	100	1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-02  
 Client ID: CD10428SS02  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:37  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	290	27.	1
Dimethyl phthalate	ND		ug/kg	290	62.	1
Benzo(a)anthracene	ND		ug/kg	180	33.	1
Benzo(a)pyrene	ND		ug/kg	240	72.	1
Benzo(b)fluoranthene	ND		ug/kg	180	50.	1
Benzo(k)fluoranthene	ND		ug/kg	180	47.	1
Chrysene	ND		ug/kg	180	31.	1
Acenaphthylene	ND		ug/kg	240	46.	1
Anthracene	ND		ug/kg	180	58.	1
Benzo(ghi)perylene	ND		ug/kg	240	35.	1
Fluorene	ND		ug/kg	290	29.	1
Phenanthrene	ND		ug/kg	180	36.	1
Dibenzo(a,h)anthracene	ND		ug/kg	180	34.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	240	41.	1
Pyrene	ND		ug/kg	180	29.	1
Biphenyl	ND		ug/kg	670	38.	1
4-Chloroaniline	ND		ug/kg	290	54.	1
2-Nitroaniline	ND		ug/kg	290	57.	1
3-Nitroaniline	ND		ug/kg	290	56.	1
4-Nitroaniline	ND		ug/kg	290	120	1
Dibenzofuran	ND		ug/kg	290	28.	1
2-Methylnaphthalene	ND		ug/kg	350	36.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	290	31.	1
Acetophenone	ND		ug/kg	290	36.	1
Benzyl Alcohol	ND		ug/kg	290	90.	1
Carbazole	ND		ug/kg	290	29.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	62		30-120
4-Terphenyl-d14	48		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-03  
 Client ID: CD10428SS03  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:40  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 11:05  
 Analyst: IM  
 Percent Solids: 55%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	240	30.	1
1,2,4-Trichlorobenzene	ND		ug/kg	290	34.	1
Hexachlorobenzene	ND		ug/kg	180	33.	1
Bis(2-chloroethyl)ether	ND		ug/kg	260	40.	1
2-Chloronaphthalene	ND		ug/kg	290	29.	1
1,2-Dichlorobenzene	ND		ug/kg	290	53.	1
1,3-Dichlorobenzene	ND		ug/kg	290	50.	1
1,4-Dichlorobenzene	ND		ug/kg	290	51.	1
3,3'-Dichlorobenzidine	ND		ug/kg	290	78.	1
2,4-Dinitrotoluene	ND		ug/kg	290	59.	1
2,6-Dinitrotoluene	ND		ug/kg	290	50.	1
Fluoranthene	ND		ug/kg	180	34.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	290	31.	1
4-Bromophenyl phenyl ether	ND		ug/kg	290	45.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	350	50.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	320	29.	1
Hexachlorobutadiene	ND		ug/kg	290	43.	1
Hexachlorocyclopentadiene	ND		ug/kg	840	270	1
Hexachloroethane	ND		ug/kg	240	48.	1
Isophorone	ND		ug/kg	260	38.	1
Naphthalene	ND		ug/kg	290	36.	1
Nitrobenzene	ND		ug/kg	260	44.	1
NDPA/DPA	ND		ug/kg	240	33.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	290	45.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	290	100	1
Butyl benzyl phthalate	ND		ug/kg	290	74.	1
Di-n-butylphthalate	ND		ug/kg	290	56.	1
Di-n-octylphthalate	ND		ug/kg	290	100	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-03  
**Client ID:** CD10428SS03  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:40  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	290	27.	1
Dimethyl phthalate	ND		ug/kg	290	62.	1
Benzo(a)anthracene	ND		ug/kg	180	33.	1
Benzo(a)pyrene	ND		ug/kg	240	72.	1
Benzo(b)fluoranthene	ND		ug/kg	180	50.	1
Benzo(k)fluoranthene	ND		ug/kg	180	47.	1
Chrysene	ND		ug/kg	180	30.	1
Acenaphthylene	ND		ug/kg	240	45.	1
Anthracene	ND		ug/kg	180	57.	1
Benzo(ghi)perylene	ND		ug/kg	240	34.	1
Fluorene	ND		ug/kg	290	28.	1
Phenanthrene	ND		ug/kg	180	36.	1
Dibenzo(a,h)anthracene	ND		ug/kg	180	34.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	240	41.	1
Pyrene	ND		ug/kg	180	29.	1
Biphenyl	ND		ug/kg	670	38.	1
4-Chloroaniline	ND		ug/kg	290	54.	1
2-Nitroaniline	ND		ug/kg	290	57.	1
3-Nitroaniline	ND		ug/kg	290	55.	1
4-Nitroaniline	ND		ug/kg	290	120	1
Dibenzofuran	ND		ug/kg	290	28.	1
2-Methylnaphthalene	ND		ug/kg	350	36.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	290	31.	1
Acetophenone	ND		ug/kg	290	36.	1
Benzyl Alcohol	ND		ug/kg	290	90.	1
Carbazole	ND		ug/kg	290	28.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	71		30-120
4-Terphenyl-d14	59		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-04  
 Client ID: CD10428SS04  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:45  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 11:29  
 Analyst: IM  
 Percent Solids: 48%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	280	36.	1
1,2,4-Trichlorobenzene	ND		ug/kg	350	40.	1
Hexachlorobenzene	ND		ug/kg	210	39.	1
Bis(2-chloroethyl)ether	ND		ug/kg	310	47.	1
2-Chloronaphthalene	ND		ug/kg	350	34.	1
1,2-Dichlorobenzene	ND		ug/kg	350	62.	1
1,3-Dichlorobenzene	ND		ug/kg	350	60.	1
1,4-Dichlorobenzene	ND		ug/kg	350	60.	1
3,3'-Dichlorobenzidine	ND		ug/kg	350	92.	1
2,4-Dinitrotoluene	ND		ug/kg	350	69.	1
2,6-Dinitrotoluene	ND		ug/kg	350	59.	1
Fluoranthene	ND		ug/kg	210	40.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	350	37.	1
4-Bromophenyl phenyl ether	ND		ug/kg	350	53.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	420	59.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	370	35.	1
Hexachlorobutadiene	ND		ug/kg	350	51.	1
Hexachlorocyclopentadiene	ND		ug/kg	990	310	1
Hexachloroethane	ND		ug/kg	280	56.	1
Isophorone	ND		ug/kg	310	45.	1
Naphthalene	ND		ug/kg	350	42.	1
Nitrobenzene	ND		ug/kg	310	51.	1
NDPA/DPA	ND		ug/kg	280	39.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	350	54.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	350	120	1
Butyl benzyl phthalate	ND		ug/kg	350	87.	1
Di-n-butylphthalate	ND		ug/kg	350	66.	1
Di-n-octylphthalate	ND		ug/kg	350	120	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-04  
**Client ID:** CD10428SS04  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:45  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	350	32.	1
Dimethyl phthalate	ND		ug/kg	350	73.	1
Benzo(a)anthracene	ND		ug/kg	210	39.	1
Benzo(a)pyrene	ND		ug/kg	280	84.	1
Benzo(b)fluoranthene	ND		ug/kg	210	58.	1
Benzo(k)fluoranthene	ND		ug/kg	210	55.	1
Chrysene	ND		ug/kg	210	36.	1
Acenaphthylene	ND		ug/kg	280	54.	1
Anthracene	ND		ug/kg	210	68.	1
Benzo(ghi)perylene	ND		ug/kg	280	41.	1
Fluorene	ND		ug/kg	350	34.	1
Phenanthrene	ND		ug/kg	210	42.	1
Dibenzo(a,h)anthracene	ND		ug/kg	210	40.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	280	48.	1
Pyrene	ND		ug/kg	210	34.	1
Biphenyl	ND		ug/kg	790	45.	1
4-Chloroaniline	ND		ug/kg	350	63.	1
2-Nitroaniline	ND		ug/kg	350	67.	1
3-Nitroaniline	ND		ug/kg	350	65.	1
4-Nitroaniline	ND		ug/kg	350	140	1
Dibenzofuran	ND		ug/kg	350	33.	1
2-Methylnaphthalene	ND		ug/kg	420	42.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	350	36.	1
Acetophenone	ND		ug/kg	350	43.	1
Benzyl Alcohol	ND		ug/kg	350	110	1
Carbazole	ND		ug/kg	350	34.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	55		30-120
4-Terphenyl-d14	32		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-05  
 Client ID: CD10428SS05  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:16  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 11:53  
 Analyst: IM  
 Percent Solids: 81%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	37.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	36.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	41.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	ND		ug/kg	120	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	32.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	71.	1
Butyl benzyl phthalate	ND		ug/kg	200	52.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	70.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-05  
**Client ID:** CD10428SS05  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:16  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1
Benzo(a)anthracene	ND		ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	ND		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	470	27.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	39.	1
4-Nitroaniline	ND		ug/kg	200	85.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
Benzyl Alcohol	ND		ug/kg	200	63.	1
Carbazole	ND		ug/kg	200	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	75		30-120
4-Terphenyl-d14	72		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-06  
 Client ID: CD10428SS06  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:25  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 12:16  
 Analyst: IM  
 Percent Solids: 75%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	180	23.	1
1,2,4-Trichlorobenzene	ND		ug/kg	220	25.	1
Hexachlorobenzene	ND		ug/kg	130	25.	1
Bis(2-chloroethyl)ether	ND		ug/kg	200	30.	1
2-Chloronaphthalene	ND		ug/kg	220	22.	1
1,2-Dichlorobenzene	ND		ug/kg	220	40.	1
1,3-Dichlorobenzene	ND		ug/kg	220	38.	1
1,4-Dichlorobenzene	ND		ug/kg	220	39.	1
3,3'-Dichlorobenzidine	ND		ug/kg	220	59.	1
2,4-Dinitrotoluene	ND		ug/kg	220	44.	1
2,6-Dinitrotoluene	ND		ug/kg	220	38.	1
Fluoranthene	ND		ug/kg	130	25.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	220	24.	1
4-Bromophenyl phenyl ether	ND		ug/kg	220	34.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	38.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	240	22.	1
Hexachlorobutadiene	ND		ug/kg	220	32.	1
Hexachlorocyclopentadiene	ND		ug/kg	630	200	1
Hexachloroethane	ND		ug/kg	180	36.	1
Isophorone	ND		ug/kg	200	29.	1
Naphthalene	ND		ug/kg	220	27.	1
Nitrobenzene	ND		ug/kg	200	33.	1
NDPA/DPA	ND		ug/kg	180	25.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	220	34.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	220	77.	1
Butyl benzyl phthalate	ND		ug/kg	220	56.	1
Di-n-butylphthalate	ND		ug/kg	220	42.	1
Di-n-octylphthalate	ND		ug/kg	220	75.	1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-06  
**Client ID:** CD10428SS06  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:25  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	220	20.	1
Dimethyl phthalate	ND		ug/kg	220	46.	1
Benzo(a)anthracene	ND		ug/kg	130	25.	1
Benzo(a)pyrene	ND		ug/kg	180	54.	1
Benzo(b)fluoranthene	ND		ug/kg	130	37.	1
Benzo(k)fluoranthene	ND		ug/kg	130	35.	1
Chrysene	ND		ug/kg	130	23.	1
Acenaphthylene	ND		ug/kg	180	34.	1
Anthracene	ND		ug/kg	130	43.	1
Benzo(ghi)perylene	ND		ug/kg	180	26.	1
Fluorene	ND		ug/kg	220	22.	1
Phenanthrene	ND		ug/kg	130	27.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	26.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	180	31.	1
Pyrene	ND		ug/kg	130	22.	1
Biphenyl	ND		ug/kg	500	29.	1
4-Chloroaniline	ND		ug/kg	220	40.	1
2-Nitroaniline	ND		ug/kg	220	43.	1
3-Nitroaniline	ND		ug/kg	220	42.	1
4-Nitroaniline	ND		ug/kg	220	92.	1
Dibenzofuran	ND		ug/kg	220	21.	1
2-Methylnaphthalene	ND		ug/kg	260	27.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	23.	1
Acetophenone	ND		ug/kg	220	27.	1
Benzyl Alcohol	ND		ug/kg	220	68.	1
Carbazole	ND		ug/kg	220	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	74		30-120
4-Terphenyl-d14	54		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-07  
 Client ID: CD10428SS07  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:35  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 12:40  
 Analyst: IM  
 Percent Solids: 69%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	190	24.	1
1,2,4-Trichlorobenzene	ND		ug/kg	230	27.	1
Hexachlorobenzene	ND		ug/kg	140	26.	1
Bis(2-chloroethyl)ether	ND		ug/kg	210	32.	1
2-Chloronaphthalene	ND		ug/kg	230	23.	1
1,2-Dichlorobenzene	ND		ug/kg	230	42.	1
1,3-Dichlorobenzene	ND		ug/kg	230	40.	1
1,4-Dichlorobenzene	ND		ug/kg	230	41.	1
3,3'-Dichlorobenzidine	ND		ug/kg	230	62.	1
2,4-Dinitrotoluene	ND		ug/kg	230	47.	1
2,6-Dinitrotoluene	ND		ug/kg	230	40.	1
Fluoranthene	ND		ug/kg	140	27.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	230	25.	1
4-Bromophenyl phenyl ether	ND		ug/kg	230	36.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	280	40.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	250	24.	1
Hexachlorobutadiene	ND		ug/kg	230	34.	1
Hexachlorocyclopentadiene	ND		ug/kg	670	210	1
Hexachloroethane	ND		ug/kg	190	38.	1
Isophorone	ND		ug/kg	210	30.	1
Naphthalene	ND		ug/kg	230	28.	1
Nitrobenzene	ND		ug/kg	210	35.	1
NDPA/DPA	ND		ug/kg	190	27.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	230	36.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	230	81.	1
Butyl benzyl phthalate	ND		ug/kg	230	59.	1
Di-n-butylphthalate	ND		ug/kg	230	44.	1
Di-n-octylphthalate	ND		ug/kg	230	80.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-07  
**Client ID:** CD10428SS07  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:35  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	230	22.	1
Dimethyl phthalate	ND		ug/kg	230	49.	1
Benzo(a)anthracene	ND		ug/kg	140	26.	1
Benzo(a)pyrene	ND		ug/kg	190	57.	1
Benzo(b)fluoranthene	ND		ug/kg	140	39.	1
Benzo(k)fluoranthene	ND		ug/kg	140	38.	1
Chrysene	ND		ug/kg	140	24.	1
Acenaphthylene	ND		ug/kg	190	36.	1
Anthracene	ND		ug/kg	140	46.	1
Benzo(ghi)perylene	ND		ug/kg	190	28.	1
Fluorene	ND		ug/kg	230	23.	1
Phenanthrene	ND		ug/kg	140	28.	1
Dibenzo(a,h)anthracene	ND		ug/kg	140	27.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	190	33.	1
Pyrene	ND		ug/kg	140	23.	1
Biphenyl	ND		ug/kg	530	30.	1
4-Chloroaniline	ND		ug/kg	230	43.	1
2-Nitroaniline	ND		ug/kg	230	45.	1
3-Nitroaniline	ND		ug/kg	230	44.	1
4-Nitroaniline	ND		ug/kg	230	97.	1
Dibenzofuran	ND		ug/kg	230	22.	1
2-Methylnaphthalene	ND		ug/kg	280	28.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	230	24.	1
Acetophenone	ND		ug/kg	230	29.	1
Benzyl Alcohol	ND		ug/kg	230	72.	1
Carbazole	ND		ug/kg	230	23.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	73		30-120
4-Terphenyl-d14	54		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-08  
 Client ID: CD10428SS08  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:57  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 13:04  
 Analyst: IM  
 Percent Solids: 63%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	210	27.	1
1,2,4-Trichlorobenzene	ND		ug/kg	260	30.	1
Hexachlorobenzene	ND		ug/kg	160	29.	1
Bis(2-chloroethyl)ether	ND		ug/kg	240	35.	1
2-Chloronaphthalene	ND		ug/kg	260	26.	1
1,2-Dichlorobenzene	ND		ug/kg	260	47.	1
1,3-Dichlorobenzene	ND		ug/kg	260	45.	1
1,4-Dichlorobenzene	ND		ug/kg	260	46.	1
3,3'-Dichlorobenzidine	ND		ug/kg	260	70.	1
2,4-Dinitrotoluene	ND		ug/kg	260	52.	1
2,6-Dinitrotoluene	ND		ug/kg	260	45.	1
Fluoranthene	ND		ug/kg	160	30.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	260	28.	1
4-Bromophenyl phenyl ether	ND		ug/kg	260	40.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	310	45.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	280	26.	1
Hexachlorobutadiene	ND		ug/kg	260	38.	1
Hexachlorocyclopentadiene	ND		ug/kg	750	240	1
Hexachloroethane	ND		ug/kg	210	42.	1
Isophorone	ND		ug/kg	240	34.	1
Naphthalene	ND		ug/kg	260	32.	1
Nitrobenzene	ND		ug/kg	240	39.	1
NDPA/DPA	ND		ug/kg	210	30.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	260	40.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	260	90.	1
Butyl benzyl phthalate	ND		ug/kg	260	66.	1
Di-n-butylphthalate	ND		ug/kg	260	50.	1
Di-n-octylphthalate	ND		ug/kg	260	89.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-08  
**Client ID:** CD10428SS08  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:57  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	260	24.	1
Dimethyl phthalate	ND		ug/kg	260	55.	1
Benzo(a)anthracene	ND		ug/kg	160	29.	1
Benzo(a)pyrene	ND		ug/kg	210	64.	1
Benzo(b)fluoranthene	ND		ug/kg	160	44.	1
Benzo(k)fluoranthene	ND		ug/kg	160	42.	1
Chrysene	ND		ug/kg	160	27.	1
Acenaphthylene	ND		ug/kg	210	40.	1
Anthracene	ND		ug/kg	160	51.	1
Benzo(ghi)perylene	ND		ug/kg	210	31.	1
Fluorene	ND		ug/kg	260	25.	1
Phenanthrene	ND		ug/kg	160	32.	1
Dibenzo(a,h)anthracene	ND		ug/kg	160	30.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	210	36.	1
Pyrene	ND		ug/kg	160	26.	1
Biphenyl	ND		ug/kg	600	34.	1
4-Chloroaniline	ND		ug/kg	260	48.	1
2-Nitroaniline	ND		ug/kg	260	50.	1
3-Nitroaniline	ND		ug/kg	260	49.	1
4-Nitroaniline	ND		ug/kg	260	110	1
Dibenzofuran	ND		ug/kg	260	25.	1
2-Methylnaphthalene	ND		ug/kg	310	32.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	260	27.	1
Acetophenone	ND		ug/kg	260	32.	1
Benzyl Alcohol	ND		ug/kg	260	80.	1
Carbazole	ND		ug/kg	260	25.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	68		30-120
4-Terphenyl-d14	52		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-09  
 Client ID: CD10428SS09  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:05  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 13:28  
 Analyst: IM  
 Percent Solids: 66%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	200	26.	1
1,2,4-Trichlorobenzene	ND		ug/kg	250	28.	1
Hexachlorobenzene	ND		ug/kg	150	28.	1
Bis(2-chloroethyl)ether	ND		ug/kg	220	34.	1
2-Chloronaphthalene	ND		ug/kg	250	24.	1
1,2-Dichlorobenzene	ND		ug/kg	250	44.	1
1,3-Dichlorobenzene	ND		ug/kg	250	42.	1
1,4-Dichlorobenzene	ND		ug/kg	250	43.	1
3,3'-Dichlorobenzidine	ND		ug/kg	250	66.	1
2,4-Dinitrotoluene	ND		ug/kg	250	49.	1
2,6-Dinitrotoluene	ND		ug/kg	250	42.	1
Fluoranthene	ND		ug/kg	150	28.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	250	26.	1
4-Bromophenyl phenyl ether	ND		ug/kg	250	38.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	300	42.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	270	25.	1
Hexachlorobutadiene	ND		ug/kg	250	36.	1
Hexachlorocyclopentadiene	ND		ug/kg	710	220	1
Hexachloroethane	ND		ug/kg	200	40.	1
Isophorone	ND		ug/kg	220	32.	1
Naphthalene	ND		ug/kg	250	30.	1
Nitrobenzene	ND		ug/kg	220	37.	1
NDPA/DPA	ND		ug/kg	200	28.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	250	38.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	250	86.	1
Butyl benzyl phthalate	ND		ug/kg	250	62.	1
Di-n-butylphthalate	ND		ug/kg	250	47.	1
Di-n-octylphthalate	ND		ug/kg	250	84.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-09  
**Client ID:** CD10428SS09  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:05  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	250	23.	1
Dimethyl phthalate	ND		ug/kg	250	52.	1
Benzo(a)anthracene	ND		ug/kg	150	28.	1
Benzo(a)pyrene	ND		ug/kg	200	60.	1
Benzo(b)fluoranthene	ND		ug/kg	150	42.	1
Benzo(k)fluoranthene	ND		ug/kg	150	40.	1
Chrysene	ND		ug/kg	150	26.	1
Acenaphthylene	ND		ug/kg	200	38.	1
Anthracene	ND		ug/kg	150	48.	1
Benzo(ghi)perylene	ND		ug/kg	200	29.	1
Fluorene	ND		ug/kg	250	24.	1
Phenanthrene	ND		ug/kg	150	30.	1
Dibenzo(a,h)anthracene	ND		ug/kg	150	28.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	200	34.	1
Pyrene	ND		ug/kg	150	24.	1
Biphenyl	ND		ug/kg	560	32.	1
4-Chloroaniline	ND		ug/kg	250	45.	1
2-Nitroaniline	ND		ug/kg	250	48.	1
3-Nitroaniline	ND		ug/kg	250	47.	1
4-Nitroaniline	ND		ug/kg	250	100	1
Dibenzofuran	ND		ug/kg	250	23.	1
2-Methylnaphthalene	ND		ug/kg	300	30.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	250	26.	1
Acetophenone	ND		ug/kg	250	31.	1
Benzyl Alcohol	ND		ug/kg	250	76.	1
Carbazole	ND		ug/kg	250	24.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	69		30-120
4-Terphenyl-d14	55		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-10  
 Client ID: CD10428SS10  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:14  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 13:52  
 Analyst: IM  
 Percent Solids: 57%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	230	30.	1
1,2,4-Trichlorobenzene	ND		ug/kg	290	33.	1
Hexachlorobenzene	ND		ug/kg	170	32.	1
Bis(2-chloroethyl)ether	ND		ug/kg	260	39.	1
2-Chloronaphthalene	ND		ug/kg	290	28.	1
1,2-Dichlorobenzene	ND		ug/kg	290	51.	1
1,3-Dichlorobenzene	ND		ug/kg	290	49.	1
1,4-Dichlorobenzene	ND		ug/kg	290	50.	1
3,3'-Dichlorobenzidine	ND		ug/kg	290	76.	1
2,4-Dinitrotoluene	ND		ug/kg	290	57.	1
2,6-Dinitrotoluene	ND		ug/kg	290	49.	1
Fluoranthene	ND		ug/kg	170	33.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	290	31.	1
4-Bromophenyl phenyl ether	ND		ug/kg	290	44.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	340	49.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	310	29.	1
Hexachlorobutadiene	ND		ug/kg	290	42.	1
Hexachlorocyclopentadiene	ND		ug/kg	820	260	1
Hexachloroethane	ND		ug/kg	230	46.	1
Isophorone	ND		ug/kg	260	37.	1
Naphthalene	ND		ug/kg	290	35.	1
Nitrobenzene	ND		ug/kg	260	42.	1
NDPA/DPA	ND		ug/kg	230	32.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	290	44.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	290	99.	1
Butyl benzyl phthalate	ND		ug/kg	290	72.	1
Di-n-butylphthalate	ND		ug/kg	290	54.	1
Di-n-octylphthalate	ND		ug/kg	290	97.	1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-10  
 Client ID: CD10428SS10  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:14  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	290	26.	1
Dimethyl phthalate	ND		ug/kg	290	60.	1
Benzo(a)anthracene	ND		ug/kg	170	32.	1
Benzo(a)pyrene	ND		ug/kg	230	70.	1
Benzo(b)fluoranthene	ND		ug/kg	170	48.	1
Benzo(k)fluoranthene	ND		ug/kg	170	46.	1
Chrysene	ND		ug/kg	170	30.	1
Acenaphthylene	ND		ug/kg	230	44.	1
Anthracene	ND		ug/kg	170	56.	1
Benzo(ghi)perylene	ND		ug/kg	230	34.	1
Fluorene	ND		ug/kg	290	28.	1
Phenanthrene	ND		ug/kg	170	35.	1
Dibenzo(a,h)anthracene	ND		ug/kg	170	33.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	230	40.	1
Pyrene	ND		ug/kg	170	28.	1
Biphenyl	ND		ug/kg	650	37.	1
4-Chloroaniline	ND		ug/kg	290	52.	1
2-Nitroaniline	ND		ug/kg	290	55.	1
3-Nitroaniline	ND		ug/kg	290	54.	1
4-Nitroaniline	ND		ug/kg	290	120	1
Dibenzofuran	ND		ug/kg	290	27.	1
2-Methylnaphthalene	ND		ug/kg	340	34.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	290	30.	1
Acetophenone	ND		ug/kg	290	35.	1
Benzyl Alcohol	ND		ug/kg	290	88.	1
Carbazole	ND		ug/kg	290	28.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	73		30-120
4-Terphenyl-d14	55		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-11  
 Client ID: CD10428SS11  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:33  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 14:16  
 Analyst: IM  
 Percent Solids: 77%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	29.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	39.	1
1,3-Dichlorobenzene	ND		ug/kg	210	37.	1
1,4-Dichlorobenzene	ND		ug/kg	210	38.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	57.	1
2,4-Dinitrotoluene	ND		ug/kg	210	43.	1
2,6-Dinitrotoluene	ND		ug/kg	210	37.	1
Fluoranthene	ND		ug/kg	130	25.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	23.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	33.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	37.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	22.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	610	190	1
Hexachloroethane	ND		ug/kg	170	35.	1
Isophorone	ND		ug/kg	190	28.	1
Naphthalene	ND		ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	32.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	33.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	74.	1
Butyl benzyl phthalate	ND		ug/kg	210	54.	1
Di-n-butylphthalate	ND		ug/kg	210	41.	1
Di-n-octylphthalate	ND		ug/kg	210	73.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-11  
 Client ID: CD10428SS11  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:33  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	210	20.	1
Dimethyl phthalate	ND		ug/kg	210	45.	1
Benzo(a)anthracene	ND		ug/kg	130	24.	1
Benzo(a)pyrene	ND		ug/kg	170	52.	1
Benzo(b)fluoranthene	ND		ug/kg	130	36.	1
Benzo(k)fluoranthene	ND		ug/kg	130	34.	1
Chrysene	ND		ug/kg	130	22.	1
Acenaphthylene	ND		ug/kg	170	33.	1
Anthracene	ND		ug/kg	130	42.	1
Benzo(ghi)perylene	ND		ug/kg	170	25.	1
Fluorene	ND		ug/kg	210	21.	1
Phenanthrene	ND		ug/kg	130	26.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	25.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	170	30.	1
Pyrene	ND		ug/kg	130	21.	1
Biphenyl	ND		ug/kg	490	28.	1
4-Chloroaniline	ND		ug/kg	210	39.	1
2-Nitroaniline	ND		ug/kg	210	41.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	89.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	260	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	27.	1
Benzyl Alcohol	ND		ug/kg	210	66.	1
Carbazole	ND		ug/kg	210	21.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	85		30-120
4-Terphenyl-d14	76		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-12  
**Client ID:** CD10428SS12  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:40  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8270E  
**Analytical Date:** 10/07/22 14:39  
**Analyst:** IM  
**Percent Solids:** 74%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	180	23.	1
1,2,4-Trichlorobenzene	ND		ug/kg	220	26.	1
Hexachlorobenzene	ND		ug/kg	130	25.	1
Bis(2-chloroethyl)ether	ND		ug/kg	200	30.	1
2-Chloronaphthalene	ND		ug/kg	220	22.	1
1,2-Dichlorobenzene	ND		ug/kg	220	40.	1
1,3-Dichlorobenzene	ND		ug/kg	220	38.	1
1,4-Dichlorobenzene	ND		ug/kg	220	39.	1
3,3'-Dichlorobenzidine	ND		ug/kg	220	59.	1
2,4-Dinitrotoluene	ND		ug/kg	220	45.	1
2,6-Dinitrotoluene	ND		ug/kg	220	38.	1
Fluoranthene	ND		ug/kg	130	26.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	220	24.	1
4-Bromophenyl phenyl ether	ND		ug/kg	220	34.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	270	38.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	240	22.	1
Hexachlorobutadiene	ND		ug/kg	220	33.	1
Hexachlorocyclopentadiene	ND		ug/kg	640	200	1
Hexachloroethane	ND		ug/kg	180	36.	1
Isophorone	ND		ug/kg	200	29.	1
Naphthalene	ND		ug/kg	220	27.	1
Nitrobenzene	ND		ug/kg	200	33.	1
NDPA/DPA	ND		ug/kg	180	25.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	220	34.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	220	77.	1
Butyl benzyl phthalate	ND		ug/kg	220	56.	1
Di-n-butylphthalate	ND		ug/kg	220	42.	1
Di-n-octylphthalate	ND		ug/kg	220	76.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-12  
**Client ID:** CD10428SS12  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:40  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	220	21.	1
Dimethyl phthalate	ND		ug/kg	220	47.	1
Benzo(a)anthracene	ND		ug/kg	130	25.	1
Benzo(a)pyrene	ND		ug/kg	180	54.	1
Benzo(b)fluoranthene	ND		ug/kg	130	38.	1
Benzo(k)fluoranthene	ND		ug/kg	130	36.	1
Chrysene	ND		ug/kg	130	23.	1
Acenaphthylene	ND		ug/kg	180	34.	1
Anthracene	ND		ug/kg	130	44.	1
Benzo(ghi)perylene	ND		ug/kg	180	26.	1
Fluorene	ND		ug/kg	220	22.	1
Phenanthrene	ND		ug/kg	130	27.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	26.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	180	31.	1
Pyrene	ND		ug/kg	130	22.	1
Biphenyl	ND		ug/kg	510	29.	1
4-Chloroaniline	ND		ug/kg	220	41.	1
2-Nitroaniline	ND		ug/kg	220	43.	1
3-Nitroaniline	ND		ug/kg	220	42.	1
4-Nitroaniline	ND		ug/kg	220	92.	1
Dibenzofuran	ND		ug/kg	220	21.	1
2-Methylnaphthalene	ND		ug/kg	270	27.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	23.	1
Acetophenone	ND		ug/kg	220	28.	1
Benzyl Alcohol	ND		ug/kg	220	68.	1
Carbazole	ND		ug/kg	220	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	73		30-120
4-Terphenyl-d14	55		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-13  
 Client ID: CD10428SS13  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:47  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 15:03  
 Analyst: IM  
 Percent Solids: 62%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 21:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	210	27.	1
1,2,4-Trichlorobenzene	ND		ug/kg	260	30.	1
Hexachlorobenzene	ND		ug/kg	160	29.	1
Bis(2-chloroethyl)ether	ND		ug/kg	240	36.	1
2-Chloronaphthalene	ND		ug/kg	260	26.	1
1,2-Dichlorobenzene	ND		ug/kg	260	47.	1
1,3-Dichlorobenzene	ND		ug/kg	260	45.	1
1,4-Dichlorobenzene	ND		ug/kg	260	46.	1
3,3'-Dichlorobenzidine	ND		ug/kg	260	70.	1
2,4-Dinitrotoluene	ND		ug/kg	260	52.	1
2,6-Dinitrotoluene	ND		ug/kg	260	45.	1
Fluoranthene	ND		ug/kg	160	30.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	260	28.	1
4-Bromophenyl phenyl ether	ND		ug/kg	260	40.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	310	45.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	280	26.	1
Hexachlorobutadiene	ND		ug/kg	260	38.	1
Hexachlorocyclopentadiene	ND		ug/kg	750	240	1
Hexachloroethane	ND		ug/kg	210	42.	1
Isophorone	ND		ug/kg	240	34.	1
Naphthalene	ND		ug/kg	260	32.	1
Nitrobenzene	ND		ug/kg	240	39.	1
NDPA/DPA	ND		ug/kg	210	30.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	260	40.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	260	91.	1
Butyl benzyl phthalate	ND		ug/kg	260	66.	1
Di-n-butylphthalate	ND		ug/kg	260	50.	1
Di-n-octylphthalate	ND		ug/kg	260	89.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-13  
**Client ID:** CD10428SS13  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:47  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	260	24.	1
Dimethyl phthalate	ND		ug/kg	260	55.	1
Benzo(a)anthracene	ND		ug/kg	160	30.	1
Benzo(a)pyrene	ND		ug/kg	210	64.	1
Benzo(b)fluoranthene	ND		ug/kg	160	44.	1
Benzo(k)fluoranthene	ND		ug/kg	160	42.	1
Chrysene	ND		ug/kg	160	27.	1
Acenaphthylene	ND		ug/kg	210	40.	1
Anthracene	ND		ug/kg	160	51.	1
Benzo(ghi)perylene	ND		ug/kg	210	31.	1
Fluorene	ND		ug/kg	260	25.	1
Phenanthrene	ND		ug/kg	160	32.	1
Dibenzo(a,h)anthracene	ND		ug/kg	160	30.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	210	36.	1
Pyrene	ND		ug/kg	160	26.	1
Biphenyl	ND		ug/kg	600	34.	1
4-Chloroaniline	ND		ug/kg	260	48.	1
2-Nitroaniline	ND		ug/kg	260	50.	1
3-Nitroaniline	ND		ug/kg	260	49.	1
4-Nitroaniline	ND		ug/kg	260	110	1
Dibenzofuran	ND		ug/kg	260	25.	1
2-Methylnaphthalene	ND		ug/kg	310	32.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	260	27.	1
Acetophenone	ND		ug/kg	260	32.	1
Benzyl Alcohol	ND		ug/kg	260	80.	1
Carbazole	ND		ug/kg	260	25.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	74		30-120
4-Terphenyl-d14	62		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-14  
 Client ID: CD10428SS14  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 14:00  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 15:27  
 Analyst: IM  
 Percent Solids: 67%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 21:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	200	26.	1
1,2,4-Trichlorobenzene	ND		ug/kg	250	28.	1
Hexachlorobenzene	ND		ug/kg	150	28.	1
Bis(2-chloroethyl)ether	ND		ug/kg	220	34.	1
2-Chloronaphthalene	ND		ug/kg	250	24.	1
1,2-Dichlorobenzene	ND		ug/kg	250	44.	1
1,3-Dichlorobenzene	ND		ug/kg	250	42.	1
1,4-Dichlorobenzene	ND		ug/kg	250	43.	1
3,3'-Dichlorobenzidine	ND		ug/kg	250	66.	1
2,4-Dinitrotoluene	ND		ug/kg	250	49.	1
2,6-Dinitrotoluene	ND		ug/kg	250	42.	1
Fluoranthene	ND		ug/kg	150	28.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	250	26.	1
4-Bromophenyl phenyl ether	ND		ug/kg	250	38.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	300	42.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	270	25.	1
Hexachlorobutadiene	ND		ug/kg	250	36.	1
Hexachlorocyclopentadiene	ND		ug/kg	710	220	1
Hexachloroethane	ND		ug/kg	200	40.	1
Isophorone	ND		ug/kg	220	32.	1
Naphthalene	ND		ug/kg	250	30.	1
Nitrobenzene	ND		ug/kg	220	36.	1
NDPA/DPA	ND		ug/kg	200	28.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	250	38.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	250	86.	1
Butyl benzyl phthalate	ND		ug/kg	250	62.	1
Di-n-butylphthalate	ND		ug/kg	250	47.	1
Di-n-octylphthalate	ND		ug/kg	250	84.	1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-14  
**Client ID:** CD10428SS14  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 14:00  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	250	23.	1
Dimethyl phthalate	ND		ug/kg	250	52.	1
Benzo(a)anthracene	ND		ug/kg	150	28.	1
Benzo(a)pyrene	ND		ug/kg	200	60.	1
Benzo(b)fluoranthene	ND		ug/kg	150	42.	1
Benzo(k)fluoranthene	ND		ug/kg	150	40.	1
Chrysene	ND		ug/kg	150	26.	1
Acenaphthylene	ND		ug/kg	200	38.	1
Anthracene	ND		ug/kg	150	48.	1
Benzo(ghi)perylene	ND		ug/kg	200	29.	1
Fluorene	ND		ug/kg	250	24.	1
Phenanthrene	ND		ug/kg	150	30.	1
Dibenzo(a,h)anthracene	ND		ug/kg	150	28.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	200	34.	1
Pyrene	ND		ug/kg	150	24.	1
Biphenyl	ND		ug/kg	560	32.	1
4-Chloroaniline	ND		ug/kg	250	45.	1
2-Nitroaniline	ND		ug/kg	250	48.	1
3-Nitroaniline	ND		ug/kg	250	47.	1
4-Nitroaniline	ND		ug/kg	250	100	1
Dibenzofuran	ND		ug/kg	250	23.	1
2-Methylnaphthalene	ND		ug/kg	300	30.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	250	26.	1
Acetophenone	ND		ug/kg	250	30.	1
Benzyl Alcohol	ND		ug/kg	250	76.	1
Carbazole	ND		ug/kg	250	24.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	69		30-120
4-Terphenyl-d14	64		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-15  
 Client ID: CD10428SS15  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 14:02  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 15:51  
 Analyst: JG  
 Percent Solids: 70%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 21:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	180	24.	1
1,2,4-Trichlorobenzene	ND		ug/kg	230	26.	1
Hexachlorobenzene	ND		ug/kg	140	26.	1
Bis(2-chloroethyl)ether	ND		ug/kg	210	31.	1
2-Chloronaphthalene	ND		ug/kg	230	23.	1
1,2-Dichlorobenzene	ND		ug/kg	230	42.	1
1,3-Dichlorobenzene	ND		ug/kg	230	40.	1
1,4-Dichlorobenzene	ND		ug/kg	230	40.	1
3,3'-Dichlorobenzidine	ND		ug/kg	230	62.	1
2,4-Dinitrotoluene	ND		ug/kg	230	46.	1
2,6-Dinitrotoluene	ND		ug/kg	230	40.	1
Fluoranthene	ND		ug/kg	140	27.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	230	25.	1
4-Bromophenyl phenyl ether	ND		ug/kg	230	35.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	280	40.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	250	23.	1
Hexachlorobutadiene	ND		ug/kg	230	34.	1
Hexachlorocyclopentadiene	ND		ug/kg	660	210	1
Hexachloroethane	ND		ug/kg	180	37.	1
Isophorone	ND		ug/kg	210	30.	1
Naphthalene	ND		ug/kg	230	28.	1
Nitrobenzene	ND		ug/kg	210	34.	1
NDPA/DPA	ND		ug/kg	180	26.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	230	36.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	230	80.	1
Butyl benzyl phthalate	ND		ug/kg	230	58.	1
Di-n-butylphthalate	ND		ug/kg	230	44.	1
Di-n-octylphthalate	ND		ug/kg	230	79.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-15  
**Client ID:** CD10428SS15  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 14:02  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	230	21.	1
Dimethyl phthalate	ND		ug/kg	230	49.	1
Benzo(a)anthracene	ND		ug/kg	140	26.	1
Benzo(a)pyrene	ND		ug/kg	180	56.	1
Benzo(b)fluoranthene	ND		ug/kg	140	39.	1
Benzo(k)fluoranthene	ND		ug/kg	140	37.	1
Chrysene	ND		ug/kg	140	24.	1
Acenaphthylene	ND		ug/kg	180	36.	1
Anthracene	ND		ug/kg	140	45.	1
Benzo(ghi)perylene	ND		ug/kg	180	27.	1
Fluorene	ND		ug/kg	230	22.	1
Phenanthrene	ND		ug/kg	140	28.	1
Dibenzo(a,h)anthracene	ND		ug/kg	140	27.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	180	32.	1
Pyrene	ND		ug/kg	140	23.	1
Biphenyl	ND		ug/kg	530	30.	1
4-Chloroaniline	ND		ug/kg	230	42.	1
2-Nitroaniline	ND		ug/kg	230	45.	1
3-Nitroaniline	ND		ug/kg	230	44.	1
4-Nitroaniline	ND		ug/kg	230	96.	1
Dibenzofuran	ND		ug/kg	230	22.	1
2-Methylnaphthalene	ND		ug/kg	280	28.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	230	24.	1
Acetophenone	ND		ug/kg	230	29.	1
Benzyl Alcohol	ND		ug/kg	230	71.	1
Carbazole	ND		ug/kg	230	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	83		30-120
4-Terphenyl-d14	71		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-16  
 Client ID: CD10428SS16  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 14:04  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 16:14  
 Analyst: JG  
 Percent Solids: 77%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 21:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	28.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	38.	1
1,3-Dichlorobenzene	ND		ug/kg	210	36.	1
1,4-Dichlorobenzene	ND		ug/kg	210	37.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	56.	1
2,4-Dinitrotoluene	ND		ug/kg	210	42.	1
2,6-Dinitrotoluene	ND		ug/kg	210	36.	1
Fluoranthene	ND		ug/kg	130	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	600	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	27.	1
Naphthalene	ND		ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	31.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	32.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	73.	1
Butyl benzyl phthalate	ND		ug/kg	210	53.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	71.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-16  
**Client ID:** CD10428SS16  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 14:04  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	210	19.	1
Dimethyl phthalate	ND		ug/kg	210	44.	1
Benzo(a)anthracene	ND		ug/kg	130	24.	1
Benzo(a)pyrene	ND		ug/kg	170	51.	1
Benzo(b)fluoranthene	ND		ug/kg	130	35.	1
Benzo(k)fluoranthene	ND		ug/kg	130	34.	1
Chrysene	ND		ug/kg	130	22.	1
Acenaphthylene	ND		ug/kg	170	32.	1
Anthracene	ND		ug/kg	130	41.	1
Benzo(ghi)perylene	ND		ug/kg	170	25.	1
Fluorene	ND		ug/kg	210	20.	1
Phenanthrene	ND		ug/kg	130	26.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	24.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	170	29.	1
Pyrene	ND		ug/kg	130	21.	1
Biphenyl	ND		ug/kg	480	27.	1
4-Chloroaniline	ND		ug/kg	210	38.	1
2-Nitroaniline	ND		ug/kg	210	40.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	87.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	250	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
Benzyl Alcohol	ND		ug/kg	210	64.	1
Carbazole	ND		ug/kg	210	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	66		30-120
4-Terphenyl-d14	47		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-17  
 Client ID: CD10428SS17  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:00  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 16:38  
 Analyst: JG  
 Percent Solids: 67%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 21:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	200	26.	1
1,2,4-Trichlorobenzene	ND		ug/kg	250	28.	1
Hexachlorobenzene	ND		ug/kg	150	28.	1
Bis(2-chloroethyl)ether	ND		ug/kg	220	34.	1
2-Chloronaphthalene	ND		ug/kg	250	24.	1
1,2-Dichlorobenzene	ND		ug/kg	250	44.	1
1,3-Dichlorobenzene	ND		ug/kg	250	42.	1
1,4-Dichlorobenzene	ND		ug/kg	250	43.	1
3,3'-Dichlorobenzidine	ND		ug/kg	250	66.	1
2,4-Dinitrotoluene	ND		ug/kg	250	49.	1
2,6-Dinitrotoluene	ND		ug/kg	250	42.	1
Fluoranthene	ND		ug/kg	150	28.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	250	26.	1
4-Bromophenyl phenyl ether	ND		ug/kg	250	38.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	300	42.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	270	25.	1
Hexachlorobutadiene	ND		ug/kg	250	36.	1
Hexachlorocyclopentadiene	ND		ug/kg	710	220	1
Hexachloroethane	ND		ug/kg	200	40.	1
Isophorone	ND		ug/kg	220	32.	1
Naphthalene	ND		ug/kg	250	30.	1
Nitrobenzene	ND		ug/kg	220	36.	1
NDPA/DPA	ND		ug/kg	200	28.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	250	38.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	250	86.	1
Butyl benzyl phthalate	ND		ug/kg	250	62.	1
Di-n-butylphthalate	ND		ug/kg	250	47.	1
Di-n-octylphthalate	ND		ug/kg	250	84.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-17  
**Client ID:** CD10428SS17  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:00  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	250	23.	1
Dimethyl phthalate	ND		ug/kg	250	52.	1
Benzo(a)anthracene	ND		ug/kg	150	28.	1
Benzo(a)pyrene	ND		ug/kg	200	60.	1
Benzo(b)fluoranthene	ND		ug/kg	150	42.	1
Benzo(k)fluoranthene	ND		ug/kg	150	40.	1
Chrysene	ND		ug/kg	150	26.	1
Acenaphthylene	ND		ug/kg	200	38.	1
Anthracene	ND		ug/kg	150	48.	1
Benzo(ghi)perylene	ND		ug/kg	200	29.	1
Fluorene	ND		ug/kg	250	24.	1
Phenanthrene	ND		ug/kg	150	30.	1
Dibenzo(a,h)anthracene	ND		ug/kg	150	28.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	200	34.	1
Pyrene	ND		ug/kg	150	24.	1
Biphenyl	ND		ug/kg	560	32.	1
4-Chloroaniline	ND		ug/kg	250	45.	1
2-Nitroaniline	ND		ug/kg	250	48.	1
3-Nitroaniline	ND		ug/kg	250	47.	1
4-Nitroaniline	ND		ug/kg	250	100	1
Dibenzofuran	ND		ug/kg	250	23.	1
2-Methylnaphthalene	ND		ug/kg	300	30.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	250	26.	1
Acetophenone	ND		ug/kg	250	31.	1
Benzyl Alcohol	ND		ug/kg	250	76.	1
Carbazole	ND		ug/kg	250	24.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	69		30-120
4-Terphenyl-d14	60		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-18  
 Client ID: CD10428SS18  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:02  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 17:02  
 Analyst: JG  
 Percent Solids: 72%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 21:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	180	23.	1
1,2,4-Trichlorobenzene	ND		ug/kg	230	26.	1
Hexachlorobenzene	ND		ug/kg	140	25.	1
Bis(2-chloroethyl)ether	ND		ug/kg	200	31.	1
2-Chloronaphthalene	ND		ug/kg	230	22.	1
1,2-Dichlorobenzene	ND		ug/kg	230	41.	1
1,3-Dichlorobenzene	ND		ug/kg	230	39.	1
1,4-Dichlorobenzene	ND		ug/kg	230	40.	1
3,3'-Dichlorobenzidine	ND		ug/kg	230	60.	1
2,4-Dinitrotoluene	ND		ug/kg	230	45.	1
2,6-Dinitrotoluene	ND		ug/kg	230	39.	1
Fluoranthene	ND		ug/kg	140	26.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	230	24.	1
4-Bromophenyl phenyl ether	ND		ug/kg	230	34.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	270	39.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	240	23.	1
Hexachlorobutadiene	ND		ug/kg	230	33.	1
Hexachlorocyclopentadiene	ND		ug/kg	650	200	1
Hexachloroethane	ND		ug/kg	180	37.	1
Isophorone	ND		ug/kg	200	29.	1
Naphthalene	ND		ug/kg	230	28.	1
Nitrobenzene	ND		ug/kg	200	34.	1
NDPA/DPA	ND		ug/kg	180	26.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	230	35.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	230	78.	1
Butyl benzyl phthalate	ND		ug/kg	230	57.	1
Di-n-butylphthalate	ND		ug/kg	230	43.	1
Di-n-octylphthalate	ND		ug/kg	230	77.	1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-18  
 Client ID: CD10428SS18  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:02  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	230	21.	1
Dimethyl phthalate	ND		ug/kg	230	48.	1
Benzo(a)anthracene	ND		ug/kg	140	26.	1
Benzo(a)pyrene	ND		ug/kg	180	55.	1
Benzo(b)fluoranthene	ND		ug/kg	140	38.	1
Benzo(k)fluoranthene	ND		ug/kg	140	36.	1
Chrysene	ND		ug/kg	140	24.	1
Acenaphthylene	ND		ug/kg	180	35.	1
Anthracene	ND		ug/kg	140	44.	1
Benzo(ghi)perylene	ND		ug/kg	180	27.	1
Fluorene	ND		ug/kg	230	22.	1
Phenanthrene	ND		ug/kg	140	28.	1
Dibenzo(a,h)anthracene	ND		ug/kg	140	26.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	180	32.	1
Pyrene	ND		ug/kg	140	22.	1
Biphenyl	ND		ug/kg	520	29.	1
4-Chloroaniline	ND		ug/kg	230	41.	1
2-Nitroaniline	ND		ug/kg	230	44.	1
3-Nitroaniline	ND		ug/kg	230	43.	1
4-Nitroaniline	ND		ug/kg	230	94.	1
Dibenzofuran	ND		ug/kg	230	21.	1
2-Methylnaphthalene	ND		ug/kg	270	27.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	230	24.	1
Acetophenone	ND		ug/kg	230	28.	1
Benzyl Alcohol	ND		ug/kg	230	69.	1
Carbazole	ND		ug/kg	230	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	79		30-120
4-Terphenyl-d14	68		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-19  
 Client ID: CD10428SS19  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:03  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 17:25  
 Analyst: JG  
 Percent Solids: 64%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 21:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	210	27.	1
1,2,4-Trichlorobenzene	ND		ug/kg	260	30.	1
Hexachlorobenzene	ND		ug/kg	160	29.	1
Bis(2-chloroethyl)ether	ND		ug/kg	230	35.	1
2-Chloronaphthalene	ND		ug/kg	260	26.	1
1,2-Dichlorobenzene	ND		ug/kg	260	46.	1
1,3-Dichlorobenzene	ND		ug/kg	260	44.	1
1,4-Dichlorobenzene	ND		ug/kg	260	45.	1
3,3'-Dichlorobenzidine	ND		ug/kg	260	69.	1
2,4-Dinitrotoluene	ND		ug/kg	260	52.	1
2,6-Dinitrotoluene	ND		ug/kg	260	44.	1
Fluoranthene	ND		ug/kg	160	30.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	260	28.	1
4-Bromophenyl phenyl ether	ND		ug/kg	260	39.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	310	44.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	280	26.	1
Hexachlorobutadiene	ND		ug/kg	260	38.	1
Hexachlorocyclopentadiene	ND		ug/kg	740	230	1
Hexachloroethane	ND		ug/kg	210	42.	1
Isophorone	ND		ug/kg	230	34.	1
Naphthalene	ND		ug/kg	260	32.	1
Nitrobenzene	ND		ug/kg	230	38.	1
NDPA/DPA	ND		ug/kg	210	29.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	260	40.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	260	90.	1
Butyl benzyl phthalate	ND		ug/kg	260	65.	1
Di-n-butylphthalate	ND		ug/kg	260	49.	1
Di-n-octylphthalate	ND		ug/kg	260	88.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-19  
**Client ID:** CD10428SS19  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:03  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	260	24.	1
Dimethyl phthalate	ND		ug/kg	260	54.	1
Benzo(a)anthracene	ND		ug/kg	160	29.	1
Benzo(a)pyrene	ND		ug/kg	210	63.	1
Benzo(b)fluoranthene	ND		ug/kg	160	44.	1
Benzo(k)fluoranthene	ND		ug/kg	160	41.	1
Chrysene	ND		ug/kg	160	27.	1
Acenaphthylene	ND		ug/kg	210	40.	1
Anthracene	ND		ug/kg	160	50.	1
Benzo(ghi)perylene	ND		ug/kg	210	30.	1
Fluorene	ND		ug/kg	260	25.	1
Phenanthrene	ND		ug/kg	160	31.	1
Dibenzo(a,h)anthracene	ND		ug/kg	160	30.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	210	36.	1
Pyrene	ND		ug/kg	160	26.	1
Biphenyl	ND		ug/kg	590	34.	1
4-Chloroaniline	ND		ug/kg	260	47.	1
2-Nitroaniline	ND		ug/kg	260	50.	1
3-Nitroaniline	ND		ug/kg	260	49.	1
4-Nitroaniline	ND		ug/kg	260	110	1
Dibenzofuran	ND		ug/kg	260	24.	1
2-Methylnaphthalene	ND		ug/kg	310	31.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	260	27.	1
Acetophenone	ND		ug/kg	260	32.	1
Benzyl Alcohol	ND		ug/kg	260	79.	1
Carbazole	ND		ug/kg	260	25.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	67		30-120
4-Terphenyl-d14	41		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-20  
 Client ID: CD10428SS20  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:26  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 17:49  
 Analyst: JG  
 Percent Solids: 88%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 21:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	670		ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	21.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	25.	1
2-Chloronaphthalene	ND		ug/kg	190	18.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	32.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	37.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	9200	E	ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	360		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	65.	1
Butyl benzyl phthalate	ND		ug/kg	190	47.	1
Di-n-butylphthalate	ND		ug/kg	190	35.	1
Di-n-octylphthalate	ND		ug/kg	190	64.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-20  
 Client ID: CD10428SS20  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:26  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	190	17.	1
Dimethyl phthalate	ND		ug/kg	190	39.	1
Benzo(a)anthracene	4800		ug/kg	110	21.	1
Benzo(a)pyrene	4100		ug/kg	150	46.	1
Benzo(b)fluoranthene	5200		ug/kg	110	31.	1
Benzo(k)fluoranthene	1600		ug/kg	110	30.	1
Chrysene	4500		ug/kg	110	19.	1
Acenaphthylene	70	J	ug/kg	150	29.	1
Anthracene	1400		ug/kg	110	36.	1
Benzo(ghi)perylene	2200		ug/kg	150	22.	1
Fluorene	610		ug/kg	190	18.	1
Phenanthrene	6600		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	480		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	2600		ug/kg	150	26.	1
Pyrene	7600	E	ug/kg	110	18.	1
Biphenyl	53	J	ug/kg	420	24.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	35.	1
4-Nitroaniline	ND		ug/kg	190	77.	1
Dibenzofuran	380		ug/kg	190	18.	1
2-Methylnaphthalene	500		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	23.	1
Benzyl Alcohol	ND		ug/kg	190	57.	1
Carbazole	910		ug/kg	190	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	67		30-120
4-Terphenyl-d14	61		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-20 D  
 Client ID: CD10428SS20  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:26  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/10/22 13:24  
 Analyst: CMM  
 Percent Solids: 88%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 21:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Fluoranthene	9800		ug/kg	560	110	5
Pyrene	8200		ug/kg	560	93.	5

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-21  
 Client ID: CD10428SS21  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:31  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/07/22 16:32  
 Analyst: JG  
 Percent Solids: 86%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 21:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	130		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-21  
**Client ID:** CD10428SS21  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:31  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	60	J	ug/kg	110	22.	1
Benzo(a)pyrene	ND		ug/kg	150	47.	1
Benzo(b)fluoranthene	59	J	ug/kg	110	32.	1
Benzo(k)fluoranthene	ND		ug/kg	110	31.	1
Chrysene	52	J	ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	ND		ug/kg	110	37.	1
Benzo(ghi)perylene	29	J	ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	80	J	ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	34	J	ug/kg	150	27.	1
Pyrene	110		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	440	25.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	ND		ug/kg	190	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	64		30-120
4-Terphenyl-d14	72		18-120



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-22  
**Client ID:** CD10428SS22  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:35  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8270E  
**Analytical Date:** 10/07/22 16:56  
**Analyst:** JG  
**Percent Solids:** 85%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 21:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	47	J	ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	980		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	29	J	ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-22  
**Client ID:** CD10428SS2  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:35  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	400		ug/kg	120	22.	1
Benzo(a)pyrene	350		ug/kg	150	47.	1
Benzo(b)fluoranthene	460		ug/kg	120	32.	1
Benzo(k)fluoranthene	140		ug/kg	120	31.	1
Chrysene	400		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	110	J	ug/kg	120	37.	1
Benzo(ghi)perylene	220		ug/kg	150	22.	1
Fluorene	51	J	ug/kg	190	19.	1
Phenanthrene	580		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	48	J	ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	250		ug/kg	150	27.	1
Pyrene	840		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	25.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	28	J	ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	88	J	ug/kg	190	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	97		23-120
2-Fluorobiphenyl	73		30-120
4-Terphenyl-d14	72		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270E  
Analytical Date: 10/07/22 09:05  
Analyst: IM

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatle Organics by GC/MS - Westborough Lab for sample(s): 01-20 Batch: WG1696482-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	26.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	42.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270E  
Analytical Date: 10/07/22 09:05  
Analyst: IM

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-20 Batch: WG1696482-1					
Dimethyl phthalate	ND		ug/kg	160	35.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	22.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
Benzyl Alcohol	ND		ug/kg	160	51.
Carbazole	ND		ug/kg	160	16.

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270E  
Analytical Date: 10/07/22 09:05  
Analyst: IM

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 20:56

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-20 Batch: WG1696482-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	93		25-120
Phenol-d6	95		10-120
Nitrobenzene-d5	94		23-120
2-Fluorobiphenyl	88		30-120
2,4,6-Tribromophenol	97		10-136
4-Terphenyl-d14	92		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270E  
Analytical Date: 10/07/22 09:45  
Analyst: IM

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 21:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatle Organics by GC/MS - Westborough Lab for sample(s): 21-22 Batch: WG1696491-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270E  
Analytical Date: 10/07/22 09:45  
Analyst: IM

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 21:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 21-22 Batch: WG1696491-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	370	21.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270E  
Analytical Date: 10/07/22 09:45  
Analyst: IM

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 21:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 21-22 Batch: WG1696491-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	54		30-120
2,4,6-Tribromophenol	63		10-136
4-Terphenyl-d14	57		18-120



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-20 Batch: WG1696482-2 WG1696482-3								
Acenaphthene	92		97		31-137	5		50
1,2,4-Trichlorobenzene	79		78		38-107	1		50
Hexachlorobenzene	85		92		40-140	8		50
Bis(2-chloroethyl)ether	84		84		40-140	0		50
2-Chloronaphthalene	82		81		40-140	1		50
1,2-Dichlorobenzene	77		79		40-140	3		50
1,3-Dichlorobenzene	77		81		40-140	5		50
1,4-Dichlorobenzene	75		78		28-104	4		50
3,3'-Dichlorobenzidine	86		93		40-140	8		50
2,4-Dinitrotoluene	102		111		40-132	8		50
2,6-Dinitrotoluene	89		90		40-140	1		50
Fluoranthene	92		94		40-140	2		50
4-Chlorophenyl phenyl ether	93		99		40-140	6		50
4-Bromophenyl phenyl ether	91		96		40-140	5		50
Bis(2-chloroisopropyl)ether	91		94		40-140	3		50
Bis(2-chloroethoxy)methane	84		88		40-117	5		50
Hexachlorobutadiene	79		79		40-140	0		50
Hexachlorocyclopentadiene	76		78		40-140	3		50
Hexachloroethane	74		77		40-140	4		50
Isophorone	78		79		40-140	1		50
Naphthalene	81		81		40-140	0		50
Nitrobenzene	81		85		40-140	5		50
NDPA/DPA	92		98		36-157	6		50

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-20 Batch: WG1696482-2 WG1696482-3								
n-Nitrosodi-n-propylamine	81		81		32-121	0		50
Bis(2-ethylhexyl)phthalate	98		101		40-140	3		50
Butyl benzyl phthalate	96		97		40-140	1		50
Di-n-butylphthalate	95		96		40-140	1		50
Di-n-octylphthalate	100		105		40-140	5		50
Diethyl phthalate	90		97		40-140	7		50
Dimethyl phthalate	80		83		40-140	4		50
Benzo(a)anthracene	94		98		40-140	4		50
Benzo(a)pyrene	107		115		40-140	7		50
Benzo(b)fluoranthene	95		102		40-140	7		50
Benzo(k)fluoranthene	98		102		40-140	4		50
Chrysene	92		97		40-140	5		50
Acenaphthylene	85		86		40-140	1		50
Anthracene	91		97		40-140	6		50
Benzo(ghi)perylene	91		96		40-140	5		50
Fluorene	91		97		40-140	6		50
Phenanthrene	88		93		40-140	6		50
Dibenzo(a,h)anthracene	91		94		40-140	3		50
Indeno(1,2,3-cd)pyrene	92		100		40-140	8		50
Pyrene	92		94		35-142	2		50
Biphenyl	81		82		37-127	1		50
4-Chloroaniline	88		81		40-140	8		50
2-Nitroaniline	92		91		47-134	1		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-20 Batch: WG1696482-2 WG1696482-3								
3-Nitroaniline	82		85		26-129	4		50
4-Nitroaniline	94		103		41-125	9		50
Dibenzofuran	92		99		40-140	7		50
2-Methylnaphthalene	83		84		40-140	1		50
1,2,4,5-Tetrachlorobenzene	80		78		40-117	3		50
Acetophenone	76		78		14-144	3		50
Benzyl Alcohol	84		88		40-140	5		50
Carbazole	91		96		54-128	5		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	89		86		25-120
Phenol-d6	93		90		10-120
Nitrobenzene-d5	90		87		23-120
2-Fluorobiphenyl	90		83		30-120
2,4,6-Tribromophenol	97		94		10-136
4-Terphenyl-d14	99		90		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-22 Batch: WG1696491-2 WG1696491-3								
Acenaphthene	59		73		31-137	21		50
1,2,4-Trichlorobenzene	55		67		38-107	20		50
Hexachlorobenzene	58		70		40-140	19		50
Bis(2-chloroethyl)ether	58		73		40-140	23		50
2-Chloronaphthalene	55		68		40-140	21		50
1,2-Dichlorobenzene	57		71		40-140	22		50
1,3-Dichlorobenzene	55		69		40-140	23		50
1,4-Dichlorobenzene	55		68		28-104	21		50
3,3'-Dichlorobenzidine	67		73		40-140	9		50
2,4-Dinitrotoluene	75		88		40-132	16		50
2,6-Dinitrotoluene	64		77		40-140	18		50
Fluoranthene	63		80		40-140	24		50
4-Chlorophenyl phenyl ether	59		72		40-140	20		50
4-Bromophenyl phenyl ether	59		72		40-140	20		50
Bis(2-chloroisopropyl)ether	66		79		40-140	18		50
Bis(2-chloroethoxy)methane	62		77		40-117	22		50
Hexachlorobutadiene	52		63		40-140	19		50
Hexachlorocyclopentadiene	32	Q	41		40-140	25		50
Hexachloroethane	64		82		40-140	25		50
Isophorone	61		72		40-140	17		50
Naphthalene	57		72		40-140	23		50
Nitrobenzene	71		88		40-140	21		50
NDPA/DPA	62		76		36-157	20		50

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-22 Batch: WG1696491-2 WG1696491-3								
n-Nitrosodi-n-propylamine	64		77		32-121		18	50
Bis(2-ethylhexyl)phthalate	79		100		40-140		23	50
Butyl benzyl phthalate	76		96		40-140		23	50
Di-n-butylphthalate	73		92		40-140		23	50
Di-n-octylphthalate	78		100		40-140		25	50
Diethyl phthalate	65		80		40-140		21	50
Dimethyl phthalate	55		68		40-140		21	50
Benzo(a)anthracene	61		78		40-140		24	50
Benzo(a)pyrene	66		83		40-140		23	50
Benzo(b)fluoranthene	60		78		40-140		26	50
Benzo(k)fluoranthene	61		77		40-140		23	50
Chrysene	60		76		40-140		24	50
Acenaphthylene	61		76		40-140		22	50
Anthracene	61		78		40-140		24	50
Benzo(ghi)perylene	64		84		40-140		27	50
Fluorene	61		75		40-140		21	50
Phenanthrene	60		77		40-140		25	50
Dibenzo(a,h)anthracene	62		80		40-140		25	50
Indeno(1,2,3-cd)pyrene	65		86		40-140		28	50
Pyrene	64		79		35-142		21	50
Biphenyl	54		67		37-127		21	50
4-Chloroaniline	49		58		40-140		17	50
2-Nitroaniline	76		93		47-134		20	50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-22 Batch: WG1696491-2 WG1696491-3								
3-Nitroaniline	75		85		26-129	13		50
4-Nitroaniline	74		86		41-125	15		50
Dibenzofuran	62		75		40-140	19		50
2-Methylnaphthalene	57		71		40-140	22		50
1,2,4,5-Tetrachlorobenzene	53		66		40-117	22		50
Acetophenone	56		70		14-144	22		50
Benzyl Alcohol	65		79		40-140	19		50
Carbazole	65		81		54-128	22		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	65		81		25-120
Phenol-d6	67		81		10-120
Nitrobenzene-d5	76		90		23-120
2-Fluorobiphenyl	54		67		30-120
2,4,6-Tribromophenol	67		79		10-136
4-Terphenyl-d14	61		76		18-120

# PCBS

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-01  
 Client ID: CD10428SS01  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:30  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 10/07/22 09:12  
 Analyst: JM  
 Percent Solids: 63%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 17:59  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0509	0.00452	1	A
Aroclor 1221	ND		mg/kg	0.0509	0.00510	1	A
Aroclor 1232	ND		mg/kg	0.0509	0.0108	1	A
Aroclor 1242	0.0370	J	mg/kg	0.0509	0.00686	1	B
Aroclor 1248	ND		mg/kg	0.0509	0.00763	1	A
Aroclor 1254	ND		mg/kg	0.0509	0.00556	1	A
Aroclor 1260	ND		mg/kg	0.0509	0.00940	1	A
Aroclor 1262	ND		mg/kg	0.0509	0.00646	1	A
Aroclor 1268	ND		mg/kg	0.0509	0.00527	1	A
PCBs, Total	0.0370	J	mg/kg	0.0509	0.00452	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	54		30-150	B



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-02  
**Client ID:** CD10428SS02  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:37  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/07/22 09:25  
**Analyst:** JM  
**Percent Solids:** 56%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 17:59  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0585	0.00520	1	A
Aroclor 1221	ND		mg/kg	0.0585	0.00586	1	A
Aroclor 1232	ND		mg/kg	0.0585	0.0124	1	A
Aroclor 1242	0.0439	J	mg/kg	0.0585	0.00789	1	B
Aroclor 1248	ND		mg/kg	0.0585	0.00878	1	A
Aroclor 1254	ND		mg/kg	0.0585	0.00640	1	A
Aroclor 1260	ND		mg/kg	0.0585	0.0108	1	A
Aroclor 1262	ND		mg/kg	0.0585	0.00743	1	A
Aroclor 1268	ND		mg/kg	0.0585	0.00606	1	A
PCBs, Total	0.0439	J	mg/kg	0.0585	0.00520	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	46		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	47		30-150	B
Decachlorobiphenyl	62		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-03  
**Client ID:** CD10428SS03  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:40  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/07/22 09:38  
**Analyst:** JM  
**Percent Solids:** 55%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 17:59  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0588	0.00522	1	A
Aroclor 1221	ND		mg/kg	0.0588	0.00589	1	A
Aroclor 1232	ND		mg/kg	0.0588	0.0125	1	A
Aroclor 1242	0.0234	J	mg/kg	0.0588	0.00793	1	A
Aroclor 1248	ND		mg/kg	0.0588	0.00882	1	A
Aroclor 1254	ND		mg/kg	0.0588	0.00643	1	A
Aroclor 1260	0.0167	J	mg/kg	0.0588	0.0109	1	A
Aroclor 1262	ND		mg/kg	0.0588	0.00747	1	A
Aroclor 1268	ND		mg/kg	0.0588	0.00609	1	A
PCBs, Total	0.0401	J	mg/kg	0.0588	0.00522	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	63		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-04  
**Client ID:** CD10428SS04  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:45  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/09/22 11:47  
**Analyst:** SDC  
**Percent Solids:** 48%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/07/22 16:54  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/08/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/08/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0672	0.00597	1	A
Aroclor 1221	ND		mg/kg	0.0672	0.00674	1	A
Aroclor 1232	ND		mg/kg	0.0672	0.0142	1	A
Aroclor 1242	0.0497	J	mg/kg	0.0672	0.00906	1	B
Aroclor 1248	ND		mg/kg	0.0672	0.0101	1	A
Aroclor 1254	0.0106	J	mg/kg	0.0672	0.00735	1	A
Aroclor 1260	ND		mg/kg	0.0672	0.0124	1	A
Aroclor 1262	ND		mg/kg	0.0672	0.00854	1	A
Aroclor 1268	ND		mg/kg	0.0672	0.00696	1	A
PCBs, Total	0.0603	J	mg/kg	0.0672	0.00597	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		30-150	B
Decachlorobiphenyl	57		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-05  
**Client ID:** CD10428SS05  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:16  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/07/22 10:04  
**Analyst:** JM  
**Percent Solids:** 81%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 17:59  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0387	0.00343	1	A
Aroclor 1221	ND		mg/kg	0.0387	0.00388	1	A
Aroclor 1232	ND		mg/kg	0.0387	0.00820	1	A
Aroclor 1242	0.0209	J	mg/kg	0.0387	0.00521	1	A
Aroclor 1248	ND		mg/kg	0.0387	0.00580	1	A
Aroclor 1254	ND		mg/kg	0.0387	0.00423	1	A
Aroclor 1260	ND		mg/kg	0.0387	0.00715	1	A
Aroclor 1262	ND		mg/kg	0.0387	0.00491	1	A
Aroclor 1268	ND		mg/kg	0.0387	0.00401	1	A
PCBs, Total	0.0209	J	mg/kg	0.0387	0.00343	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	74		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-06  
**Client ID:** CD10428SS06  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:25  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/07/22 10:17  
**Analyst:** JM  
**Percent Solids:** 75%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 17:59  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0438	0.00389	1	A
Aroclor 1221	ND		mg/kg	0.0438	0.00438	1	A
Aroclor 1232	ND		mg/kg	0.0438	0.00928	1	A
Aroclor 1242	0.00724	J	mg/kg	0.0438	0.00590	1	A
Aroclor 1248	ND		mg/kg	0.0438	0.00656	1	A
Aroclor 1254	ND		mg/kg	0.0438	0.00479	1	A
Aroclor 1260	ND		mg/kg	0.0438	0.00809	1	A
Aroclor 1262	ND		mg/kg	0.0438	0.00556	1	A
Aroclor 1268	ND		mg/kg	0.0438	0.00453	1	A
PCBs, Total	0.00724	J	mg/kg	0.0438	0.00389	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	67		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-07  
**Client ID:** CD10428SS07  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:35  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/07/22 10:29  
**Analyst:** JM  
**Percent Solids:** 69%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 17:59  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0471	0.00418	1	A
Aroclor 1221	ND		mg/kg	0.0471	0.00472	1	A
Aroclor 1232	ND		mg/kg	0.0471	0.00999	1	A
Aroclor 1242	0.00691	J	mg/kg	0.0471	0.00635	1	A
Aroclor 1248	ND		mg/kg	0.0471	0.00707	1	A
Aroclor 1254	ND		mg/kg	0.0471	0.00516	1	A
Aroclor 1260	ND		mg/kg	0.0471	0.00871	1	A
Aroclor 1262	ND		mg/kg	0.0471	0.00599	1	A
Aroclor 1268	ND		mg/kg	0.0471	0.00488	1	A
PCBs, Total	0.00691	J	mg/kg	0.0471	0.00418	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	40		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	41		30-150	B
Decachlorobiphenyl	64		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-08  
**Client ID:** CD10428SS08  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:57  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/07/22 10:42  
**Analyst:** JM  
**Percent Solids:** 63%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 17:59  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0503	0.00447	1	A
Aroclor 1221	ND		mg/kg	0.0503	0.00504	1	A
Aroclor 1232	ND		mg/kg	0.0503	0.0107	1	A
Aroclor 1242	0.0680		mg/kg	0.0503	0.00678	1	B
Aroclor 1248	ND		mg/kg	0.0503	0.00755	1	A
Aroclor 1254	ND		mg/kg	0.0503	0.00550	1	A
Aroclor 1260	ND		mg/kg	0.0503	0.00930	1	A
Aroclor 1262	ND		mg/kg	0.0503	0.00639	1	A
Aroclor 1268	ND		mg/kg	0.0503	0.00521	1	A
PCBs, Total	0.0680		mg/kg	0.0503	0.00447	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	51		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	60		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-09  
**Client ID:** CD10428SS09  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:05  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/07/22 10:55  
**Analyst:** JM  
**Percent Solids:** 66%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 17:59  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0506	0.00449	1	A
Aroclor 1221	ND		mg/kg	0.0506	0.00507	1	A
Aroclor 1232	ND		mg/kg	0.0506	0.0107	1	A
Aroclor 1242	0.0247	J	mg/kg	0.0506	0.00682	1	B
Aroclor 1248	ND		mg/kg	0.0506	0.00758	1	A
Aroclor 1254	ND		mg/kg	0.0506	0.00553	1	A
Aroclor 1260	ND		mg/kg	0.0506	0.00934	1	A
Aroclor 1262	ND		mg/kg	0.0506	0.00642	1	A
Aroclor 1268	ND		mg/kg	0.0506	0.00524	1	A
PCBs, Total	0.0247	J	mg/kg	0.0506	0.00449	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	70		30-150	B



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-10  
**Client ID:** CD10428SS10  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:14  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/07/22 11:08  
**Analyst:** JM  
**Percent Solids:** 57%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 17:59  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0579	0.00514	1	A
Aroclor 1221	ND		mg/kg	0.0579	0.00580	1	A
Aroclor 1232	ND		mg/kg	0.0579	0.0123	1	A
Aroclor 1242	0.00905	J	mg/kg	0.0579	0.00781	1	A
Aroclor 1248	ND		mg/kg	0.0579	0.00869	1	A
Aroclor 1254	ND		mg/kg	0.0579	0.00634	1	A
Aroclor 1260	ND		mg/kg	0.0579	0.0107	1	A
Aroclor 1262	ND		mg/kg	0.0579	0.00736	1	A
Aroclor 1268	ND		mg/kg	0.0579	0.00600	1	A
PCBs, Total	0.00905	J	mg/kg	0.0579	0.00514	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	67		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-11  
 Client ID: CD10428SS11  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:33  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 10/07/22 11:21  
 Analyst: JM  
 Percent Solids: 77%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 17:59  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0414	0.00367	1	A
Aroclor 1221	ND		mg/kg	0.0414	0.00414	1	A
Aroclor 1232	ND		mg/kg	0.0414	0.00877	1	A
Aroclor 1242	0.00798	JP	mg/kg	0.0414	0.00557	1	A
Aroclor 1248	ND		mg/kg	0.0414	0.00620	1	A
Aroclor 1254	ND		mg/kg	0.0414	0.00452	1	A
Aroclor 1260	ND		mg/kg	0.0414	0.00764	1	A
Aroclor 1262	ND		mg/kg	0.0414	0.00525	1	A
Aroclor 1268	ND		mg/kg	0.0414	0.00428	1	A
PCBs, Total	0.00798	J	mg/kg	0.0414	0.00367	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	61		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-12  
 Client ID: CD10428SS12  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:40  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 10/07/22 11:33  
 Analyst: JM  
 Percent Solids: 74%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 17:59  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0431	0.00383	1	A
Aroclor 1221	ND		mg/kg	0.0431	0.00432	1	A
Aroclor 1232	ND		mg/kg	0.0431	0.00915	1	A
Aroclor 1242	ND		mg/kg	0.0431	0.00582	1	A
Aroclor 1248	ND		mg/kg	0.0431	0.00647	1	A
Aroclor 1254	ND		mg/kg	0.0431	0.00472	1	A
Aroclor 1260	ND		mg/kg	0.0431	0.00797	1	A
Aroclor 1262	ND		mg/kg	0.0431	0.00548	1	A
Aroclor 1268	ND		mg/kg	0.0431	0.00447	1	A
PCBs, Total	ND		mg/kg	0.0431	0.00383	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	49		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	51		30-150	B
Decachlorobiphenyl	56		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-13  
**Client ID:** CD10428SS13  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:47  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/07/22 11:46  
**Analyst:** JM  
**Percent Solids:** 62%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 18:07  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0533	0.00473	1	A
Aroclor 1221	ND		mg/kg	0.0533	0.00534	1	A
Aroclor 1232	ND		mg/kg	0.0533	0.0113	1	A
Aroclor 1242	0.0212	J	mg/kg	0.0533	0.00718	1	A
Aroclor 1248	ND		mg/kg	0.0533	0.00799	1	A
Aroclor 1254	ND		mg/kg	0.0533	0.00583	1	A
Aroclor 1260	ND		mg/kg	0.0533	0.00984	1	A
Aroclor 1262	ND		mg/kg	0.0533	0.00676	1	A
Aroclor 1268	ND		mg/kg	0.0533	0.00552	1	A
PCBs, Total	0.0212	J	mg/kg	0.0533	0.00473	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	45		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	46		30-150	B
Decachlorobiphenyl	54		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-14  
 Client ID: CD10428SS14  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 14:00  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 10/07/22 11:59  
 Analyst: JM  
 Percent Solids: 67%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 18:07  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0489	0.00434	1	A
Aroclor 1221	ND		mg/kg	0.0489	0.00490	1	A
Aroclor 1232	ND		mg/kg	0.0489	0.0104	1	A
Aroclor 1242	ND		mg/kg	0.0489	0.00659	1	A
Aroclor 1248	ND		mg/kg	0.0489	0.00733	1	A
Aroclor 1254	ND		mg/kg	0.0489	0.00535	1	A
Aroclor 1260	0.00991	J	mg/kg	0.0489	0.00903	1	A
Aroclor 1262	ND		mg/kg	0.0489	0.00621	1	A
Aroclor 1268	ND		mg/kg	0.0489	0.00506	1	A
PCBs, Total	0.00991	J	mg/kg	0.0489	0.00434	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	51		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		30-150	B
Decachlorobiphenyl	58		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-15  
 Client ID: CD10428SS15  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 14:02  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 10/07/22 12:12  
 Analyst: JM  
 Percent Solids: 70%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 18:07  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0468	0.00415	1	A
Aroclor 1221	ND		mg/kg	0.0468	0.00468	1	A
Aroclor 1232	ND		mg/kg	0.0468	0.00991	1	A
Aroclor 1242	0.00916	J	mg/kg	0.0468	0.00630	1	A
Aroclor 1248	ND		mg/kg	0.0468	0.00701	1	A
Aroclor 1254	ND		mg/kg	0.0468	0.00512	1	A
Aroclor 1260	ND		mg/kg	0.0468	0.00864	1	A
Aroclor 1262	ND		mg/kg	0.0468	0.00594	1	A
Aroclor 1268	ND		mg/kg	0.0468	0.00484	1	A
PCBs, Total	0.00916	J	mg/kg	0.0468	0.00415	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	53		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	65		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-16  
 Client ID: CD10428SS16  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 14:04  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 10/07/22 12:25  
 Analyst: JM  
 Percent Solids: 77%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 18:07  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0426	0.00378	1	A
Aroclor 1221	ND		mg/kg	0.0426	0.00426	1	A
Aroclor 1232	ND		mg/kg	0.0426	0.00902	1	A
Aroclor 1242	0.0174	J	mg/kg	0.0426	0.00574	1	B
Aroclor 1248	ND		mg/kg	0.0426	0.00638	1	A
Aroclor 1254	ND		mg/kg	0.0426	0.00466	1	A
Aroclor 1260	0.0523		mg/kg	0.0426	0.00786	1	A
Aroclor 1262	ND		mg/kg	0.0426	0.00540	1	A
Aroclor 1268	ND		mg/kg	0.0426	0.00441	1	A
PCBs, Total	0.0697	J	mg/kg	0.0426	0.00378	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	34		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	35		30-150	B
Decachlorobiphenyl	64		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-17  
 Client ID: CD10428SS17  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:00  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 10/07/22 12:38  
 Analyst: JM  
 Percent Solids: 67%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 18:07  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0492	0.00437	1	A
Aroclor 1221	ND		mg/kg	0.0492	0.00493	1	A
Aroclor 1232	ND		mg/kg	0.0492	0.0104	1	A
Aroclor 1242	0.0105	JP	mg/kg	0.0492	0.00664	1	A
Aroclor 1248	ND		mg/kg	0.0492	0.00739	1	A
Aroclor 1254	ND		mg/kg	0.0492	0.00539	1	A
Aroclor 1260	0.0350	J	mg/kg	0.0492	0.00910	1	A
Aroclor 1262	ND		mg/kg	0.0492	0.00625	1	A
Aroclor 1268	ND		mg/kg	0.0492	0.00510	1	A
PCBs, Total	0.0455	J	mg/kg	0.0492	0.00437	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	49		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	51		30-150	B
Decachlorobiphenyl	55		30-150	B



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-18  
 Client ID: CD10428SS18  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:02  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 10/07/22 13:03  
 Analyst: JM  
 Percent Solids: 72%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 18:07  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0450	0.00399	1	A
Aroclor 1221	ND		mg/kg	0.0450	0.00450	1	A
Aroclor 1232	ND		mg/kg	0.0450	0.00953	1	A
Aroclor 1242	0.00975	J	mg/kg	0.0450	0.00606	1	B
Aroclor 1248	ND		mg/kg	0.0450	0.00674	1	A
Aroclor 1254	ND		mg/kg	0.0450	0.00492	1	A
Aroclor 1260	ND		mg/kg	0.0450	0.00831	1	A
Aroclor 1262	ND		mg/kg	0.0450	0.00571	1	A
Aroclor 1268	ND		mg/kg	0.0450	0.00466	1	A
PCBs, Total	0.00975	J	mg/kg	0.0450	0.00399	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	64		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-19  
**Client ID:** CD10428SS19  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:03  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/07/22 13:17  
**Analyst:** JM  
**Percent Solids:** 64%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 18:07  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0508	0.00451	1	A
Aroclor 1221	ND		mg/kg	0.0508	0.00509	1	A
Aroclor 1232	ND		mg/kg	0.0508	0.0108	1	A
Aroclor 1242	0.0277	JP	mg/kg	0.0508	0.00685	1	B
Aroclor 1248	ND		mg/kg	0.0508	0.00762	1	A
Aroclor 1254	ND		mg/kg	0.0508	0.00556	1	A
Aroclor 1260	ND		mg/kg	0.0508	0.00939	1	A
Aroclor 1262	ND		mg/kg	0.0508	0.00645	1	A
Aroclor 1268	ND		mg/kg	0.0508	0.00526	1	A
PCBs, Total	0.0277	J	mg/kg	0.0508	0.00451	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	49		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	62		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-20  
 Client ID: CD10428SS20  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:26  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 10/07/22 13:29  
 Analyst: JM  
 Percent Solids: 88%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 18:07  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0360	0.00319	1	A
Aroclor 1221	ND		mg/kg	0.0360	0.00360	1	A
Aroclor 1232	ND		mg/kg	0.0360	0.00762	1	A
Aroclor 1242	0.00803	J	mg/kg	0.0360	0.00485	1	A
Aroclor 1248	ND		mg/kg	0.0360	0.00539	1	A
Aroclor 1254	ND		mg/kg	0.0360	0.00393	1	A
Aroclor 1260	ND		mg/kg	0.0360	0.00664	1	A
Aroclor 1262	ND		mg/kg	0.0360	0.00457	1	A
Aroclor 1268	ND		mg/kg	0.0360	0.00372	1	A
PCBs, Total	0.00803	J	mg/kg	0.0360	0.00319	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	36		30-150	A
Decachlorobiphenyl	31		30-150	A
2,4,5,6-Tetrachloro-m-xylene	36		30-150	B
Decachlorobiphenyl	33		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-21  
 Client ID: CD10428SS21  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:31  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 10/08/22 00:23  
 Analyst: MEO  
 Percent Solids: 86%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 18:04  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0371	0.00330	1	A
Aroclor 1221	ND		mg/kg	0.0371	0.00372	1	A
Aroclor 1232	ND		mg/kg	0.0371	0.00787	1	A
Aroclor 1242	0.0630		mg/kg	0.0371	0.00500	1	B
Aroclor 1248	ND		mg/kg	0.0371	0.00557	1	A
Aroclor 1254	ND		mg/kg	0.0371	0.00406	1	A
Aroclor 1260	ND		mg/kg	0.0371	0.00686	1	A
Aroclor 1262	ND		mg/kg	0.0371	0.00471	1	A
Aroclor 1268	ND		mg/kg	0.0371	0.00384	1	A
PCBs, Total	0.0630		mg/kg	0.0371	0.00330	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	<b>3990</b>	Q	30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-22  
**Client ID:** CD10428SS22  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:35  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/08/22 00:29  
**Analyst:** MEO  
**Percent Solids:** 85%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 18:04  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0389	0.00345	1	A
Aroclor 1221	ND		mg/kg	0.0389	0.00390	1	A
Aroclor 1232	ND		mg/kg	0.0389	0.00824	1	A
Aroclor 1242	0.0264	J	mg/kg	0.0389	0.00524	1	A
Aroclor 1248	ND		mg/kg	0.0389	0.00583	1	A
Aroclor 1254	ND		mg/kg	0.0389	0.00425	1	A
Aroclor 1260	ND		mg/kg	0.0389	0.00718	1	A
Aroclor 1262	ND		mg/kg	0.0389	0.00494	1	A
Aroclor 1268	ND		mg/kg	0.0389	0.00403	1	A
PCBs, Total	0.0264	J	mg/kg	0.0389	0.00345	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	46		30-150	A
Decachlorobiphenyl	50		30-150	A
2,4,5,6-Tetrachloro-m-xylene	45		30-150	B
Decachlorobiphenyl	59		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 10/07/22 08:34  
Analyst: JM

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 17:59  
Cleanup Method: EPA 3665A  
Cleanup Date: 10/07/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-03,05-20 Batch: WG1696452-1						
Aroclor 1016	ND		mg/kg	0.0314	0.00279	A
Aroclor 1221	ND		mg/kg	0.0314	0.00315	A
Aroclor 1232	ND		mg/kg	0.0314	0.00667	A
Aroclor 1242	ND		mg/kg	0.0314	0.00424	A
Aroclor 1248	ND		mg/kg	0.0314	0.00472	A
Aroclor 1254	ND		mg/kg	0.0314	0.00344	A
Aroclor 1260	ND		mg/kg	0.0314	0.00581	A
Aroclor 1262	ND		mg/kg	0.0314	0.00399	A
Aroclor 1268	ND		mg/kg	0.0314	0.00326	A
PCBs, Total	ND		mg/kg	0.0314	0.00279	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	65		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 10/08/22 00:09  
Analyst: MEO

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 18:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 10/07/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 04,21-22 Batch: WG1696453-1						
Aroclor 1016	ND		mg/kg	0.0324	0.00288	A
Aroclor 1221	ND		mg/kg	0.0324	0.00325	A
Aroclor 1232	ND		mg/kg	0.0324	0.00687	A
Aroclor 1242	ND		mg/kg	0.0324	0.00437	A
Aroclor 1248	ND		mg/kg	0.0324	0.00486	A
Aroclor 1254	ND		mg/kg	0.0324	0.00354	A
Aroclor 1260	ND		mg/kg	0.0324	0.00599	A
Aroclor 1262	ND		mg/kg	0.0324	0.00412	A
Aroclor 1268	ND		mg/kg	0.0324	0.00336	A
PCBs, Total	ND		mg/kg	0.0324	0.00288	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	71		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2254892

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-03,05-20 Batch: WG1696452-2 WG1696452-3									
Aroclor 1016	71		82		40-140	14		50	A
Aroclor 1260	64		75		40-140	16		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		79		30-150	A
Decachlorobiphenyl	69		80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		81		30-150	B
Decachlorobiphenyl	67		82		30-150	B



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 04,21-22 Batch: WG1696453-2 WG1696453-3									
Aroclor 1016	70		78		40-140	11		50	A
Aroclor 1260	58		66		40-140	13		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		75		30-150	A
Decachlorobiphenyl	64		71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		79		30-150	B
Decachlorobiphenyl	77		80		30-150	B



# PESTICIDES

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-01  
**Client ID:** CD10428SS01  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:30  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 10/09/22 18:03  
**Analyst:** MMG  
**Percent Solids:** 63%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 19:22  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/09/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.52	0.493	1	A
Lindane	ND		ug/kg	1.05	0.468	1	A
Alpha-BHC	ND		ug/kg	1.05	0.298	1	A
Beta-BHC	ND		ug/kg	2.52	0.954	1	A
Heptachlor	ND		ug/kg	1.26	0.564	1	A
Aldrin	ND		ug/kg	2.52	0.886	1	A
Heptachlor epoxide	ND		ug/kg	4.72	1.42	1	A
Endrin	ND		ug/kg	1.05	0.430	1	A
Endrin aldehyde	ND		ug/kg	3.14	1.10	1	A
Endrin ketone	ND		ug/kg	2.52	0.648	1	A
Dieldrin	ND		ug/kg	1.57	0.786	1	A
4,4'-DDE	ND		ug/kg	2.52	0.582	1	A
4,4'-DDD	ND		ug/kg	2.52	0.897	1	A
4,4'-DDT	ND		ug/kg	2.52	2.02	1	A
Endosulfan I	ND		ug/kg	2.52	0.594	1	A
Endosulfan II	ND		ug/kg	2.52	0.841	1	A
Endosulfan sulfate	ND		ug/kg	1.05	0.499	1	A
Methoxychlor	ND		ug/kg	4.72	1.47	1	A
Toxaphene	ND		ug/kg	47.2	13.2	1	A
cis-Chlordane	ND		ug/kg	3.14	0.876	1	A
trans-Chlordane	ND		ug/kg	3.14	0.830	1	A
Chlordane	ND		ug/kg	21.0	8.33	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-01  
 Client ID: CD10428SS01  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:30  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	50		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	52		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-02  
**Client ID:** CD10428SS02  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:37  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 10/09/22 18:14  
**Analyst:** MMG  
**Percent Solids:** 56%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 19:22  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/09/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.79	0.547	1	A
Lindane	ND		ug/kg	1.16	0.520	1	A
Alpha-BHC	ND		ug/kg	1.16	0.330	1	A
Beta-BHC	ND		ug/kg	2.79	1.06	1	A
Heptachlor	ND		ug/kg	1.40	0.626	1	A
Aldrin	ND		ug/kg	2.79	0.984	1	A
Heptachlor epoxide	ND		ug/kg	5.24	1.57	1	A
Endrin	ND		ug/kg	1.16	0.477	1	A
Endrin aldehyde	ND		ug/kg	3.49	1.22	1	A
Endrin ketone	ND		ug/kg	2.79	0.719	1	A
Dieldrin	ND		ug/kg	1.74	0.873	1	A
4,4'-DDE	ND		ug/kg	2.79	0.646	1	A
4,4'-DDD	ND		ug/kg	2.79	0.996	1	A
4,4'-DDT	ND		ug/kg	2.79	2.25	1	A
Endosulfan I	ND		ug/kg	2.79	0.660	1	A
Endosulfan II	ND		ug/kg	2.79	0.933	1	A
Endosulfan sulfate	ND		ug/kg	1.16	0.554	1	A
Methoxychlor	ND		ug/kg	5.24	1.63	1	A
Toxaphene	ND		ug/kg	52.4	14.7	1	A
cis-Chlordane	ND		ug/kg	3.49	0.973	1	A
trans-Chlordane	ND		ug/kg	3.49	0.922	1	A
Chlordane	ND		ug/kg	23.3	9.25	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-02  
 Client ID: CD10428SS02  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:37  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	56		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	54		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-03  
 Client ID: CD10428SS03  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:40  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/09/22 18:25  
 Analyst: MMG  
 Percent Solids: 55%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:22  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/09/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.84	0.557	1	A
Lindane	ND		ug/kg	1.18	0.529	1	A
Alpha-BHC	ND		ug/kg	1.18	0.336	1	A
Beta-BHC	ND		ug/kg	2.84	1.08	1	A
Heptachlor	ND		ug/kg	1.42	0.637	1	A
Aldrin	ND		ug/kg	2.84	1.00	1	A
Heptachlor epoxide	ND		ug/kg	5.33	1.60	1	A
Endrin	ND		ug/kg	1.18	0.486	1	A
Endrin aldehyde	ND		ug/kg	3.55	1.24	1	A
Endrin ketone	ND		ug/kg	2.84	0.732	1	A
Dieldrin	ND		ug/kg	1.78	0.888	1	A
4,4'-DDE	ND		ug/kg	2.84	0.657	1	A
4,4'-DDD	ND		ug/kg	2.84	1.01	1	B
4,4'-DDT	ND		ug/kg	2.84	2.29	1	A
Endosulfan I	ND		ug/kg	2.84	0.672	1	A
Endosulfan II	ND		ug/kg	2.84	0.950	1	A
Endosulfan sulfate	ND		ug/kg	1.18	0.564	1	A
Methoxychlor	ND		ug/kg	5.33	1.66	1	A
Toxaphene	ND		ug/kg	53.3	14.9	1	A
cis-Chlordane	ND		ug/kg	3.55	0.990	1	A
trans-Chlordane	ND		ug/kg	3.55	0.938	1	A
Chlordane	ND		ug/kg	23.7	9.42	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-03  
 Client ID: CD10428SS03  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:40  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	56		30-150	B



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-04  
**Client ID:** CD10428SS04  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:45  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 10/09/22 18:36  
**Analyst:** MMG  
**Percent Solids:** 48%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 19:22  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 10/07/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/09/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	3.33	0.652	1	A
Lindane	ND		ug/kg	1.39	0.620	1	A
Alpha-BHC	ND		ug/kg	1.39	0.394	1	A
Beta-BHC	ND		ug/kg	3.33	1.26	1	A
Heptachlor	ND		ug/kg	1.66	0.746	1	A
Aldrin	ND		ug/kg	3.33	1.17	1	A
Heptachlor epoxide	ND		ug/kg	6.24	1.87	1	A
Endrin	ND		ug/kg	1.39	0.569	1	A
Endrin aldehyde	ND		ug/kg	4.16	1.46	1	A
Endrin ketone	ND		ug/kg	3.33	0.857	1	A
Dieldrin	ND		ug/kg	2.08	1.04	1	A
4,4'-DDE	ND		ug/kg	3.33	0.770	1	A
4,4'-DDD	ND		ug/kg	3.33	1.19	1	A
4,4'-DDT	ND		ug/kg	3.33	2.68	1	A
Endosulfan I	ND		ug/kg	3.33	0.786	1	A
Endosulfan II	ND		ug/kg	3.33	1.11	1	A
Endosulfan sulfate	ND		ug/kg	1.39	0.660	1	A
Methoxychlor	ND		ug/kg	6.24	1.94	1	A
Toxaphene	ND		ug/kg	62.4	17.5	1	A
cis-Chlordane	ND		ug/kg	4.16	1.16	1	A
trans-Chlordane	ND		ug/kg	4.16	1.10	1	A
Chlordane	ND		ug/kg	27.7	11.0	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-04  
 Client ID: CD10428SS04  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:45  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	50		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-05  
 Client ID: CD10428SS05  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:16  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/09/22 18:47  
 Analyst: MMG  
 Percent Solids: 81%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:22  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/09/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.97	0.386	1	A
Lindane	ND		ug/kg	0.821	0.367	1	A
Alpha-BHC	ND		ug/kg	0.821	0.233	1	A
Beta-BHC	ND		ug/kg	1.97	0.747	1	A
Heptachlor	ND		ug/kg	0.986	0.442	1	A
Aldrin	ND		ug/kg	1.97	0.694	1	A
Heptachlor epoxide	ND		ug/kg	3.70	1.11	1	A
Endrin	ND		ug/kg	0.821	0.337	1	A
Endrin aldehyde	ND		ug/kg	2.46	0.862	1	A
Endrin ketone	ND		ug/kg	1.97	0.508	1	A
Dieldrin	ND		ug/kg	1.23	0.616	1	A
4,4'-DDE	ND		ug/kg	1.97	0.456	1	A
4,4'-DDD	ND		ug/kg	1.97	0.703	1	A
4,4'-DDT	ND		ug/kg	1.97	1.58	1	A
Endosulfan I	ND		ug/kg	1.97	0.466	1	A
Endosulfan II	ND		ug/kg	1.97	0.659	1	A
Endosulfan sulfate	ND		ug/kg	0.821	0.391	1	A
Methoxychlor	ND		ug/kg	3.70	1.15	1	A
Toxaphene	ND		ug/kg	37.0	10.3	1	A
cis-Chlordane	ND		ug/kg	2.46	0.687	1	A
trans-Chlordane	ND		ug/kg	2.46	0.650	1	A
Chlordane	ND		ug/kg	16.4	6.53	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-05  
 Client ID: CD10428SS05  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:16  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	59		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-06  
 Client ID: CD10428SS06  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:25  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/09/22 18:58  
 Analyst: MMG  
 Percent Solids: 75%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:22  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/09/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.04	0.399	1	A
Lindane	ND		ug/kg	0.849	0.380	1	A
Alpha-BHC	ND		ug/kg	0.849	0.241	1	A
Beta-BHC	ND		ug/kg	2.04	0.773	1	A
Heptachlor	ND		ug/kg	1.02	0.457	1	A
Aldrin	ND		ug/kg	2.04	0.718	1	A
Heptachlor epoxide	ND		ug/kg	3.82	1.15	1	A
Endrin	ND		ug/kg	0.849	0.348	1	A
Endrin aldehyde	ND		ug/kg	2.55	0.892	1	A
Endrin ketone	ND		ug/kg	2.04	0.525	1	A
Dieldrin	ND		ug/kg	1.27	0.637	1	A
4,4'-DDE	ND		ug/kg	2.04	0.471	1	A
4,4'-DDD	ND		ug/kg	2.04	0.727	1	A
4,4'-DDT	ND		ug/kg	2.04	1.64	1	A
Endosulfan I	ND		ug/kg	2.04	0.481	1	A
Endosulfan II	ND		ug/kg	2.04	0.681	1	A
Endosulfan sulfate	ND		ug/kg	0.849	0.404	1	A
Methoxychlor	ND		ug/kg	3.82	1.19	1	A
Toxaphene	ND		ug/kg	38.2	10.7	1	A
cis-Chlordane	ND		ug/kg	2.55	0.710	1	A
trans-Chlordane	ND		ug/kg	2.55	0.672	1	A
Chlordane	ND		ug/kg	17.0	6.75	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-06  
 Client ID: CD10428SS06  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:25  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	56		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	55		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-07  
 Client ID: CD10428SS07  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:35  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/08/22 19:34  
 Analyst: MMG  
 Percent Solids: 69%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:26  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.29	0.448	1	A
Lindane	ND		ug/kg	0.953	0.426	1	A
Alpha-BHC	ND		ug/kg	0.953	0.270	1	A
Beta-BHC	ND		ug/kg	2.29	0.867	1	A
Heptachlor	ND		ug/kg	1.14	0.512	1	A
Aldrin	ND		ug/kg	2.29	0.805	1	A
Heptachlor epoxide	ND		ug/kg	4.29	1.29	1	A
Endrin	ND		ug/kg	0.953	0.391	1	A
Endrin aldehyde	ND		ug/kg	2.86	1.00	1	A
Endrin ketone	ND		ug/kg	2.29	0.589	1	A
Dieldrin	ND		ug/kg	1.43	0.714	1	A
4,4'-DDE	ND		ug/kg	2.29	0.529	1	A
4,4'-DDD	ND		ug/kg	2.29	0.816	1	A
4,4'-DDT	ND		ug/kg	2.29	1.84	1	A
Endosulfan I	ND		ug/kg	2.29	0.540	1	A
Endosulfan II	ND		ug/kg	2.29	0.764	1	A
Endosulfan sulfate	ND		ug/kg	0.953	0.453	1	A
Methoxychlor	ND		ug/kg	4.29	1.33	1	A
Toxaphene	ND		ug/kg	42.9	12.0	1	A
cis-Chlordane	ND		ug/kg	2.86	0.796	1	A
trans-Chlordane	ND		ug/kg	2.86	0.754	1	A
Chlordane	ND		ug/kg	19.0	7.57	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-07  
 Client ID: CD10428SS07  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:35  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	67		30-150	B



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-08  
 Client ID: CD10428SS08  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:57  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/08/22 19:46  
 Analyst: MMG  
 Percent Solids: 63%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:26  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.42	0.474	1	A
Lindane	ND		ug/kg	1.01	0.451	1	A
Alpha-BHC	ND		ug/kg	1.01	0.287	1	A
Beta-BHC	ND		ug/kg	2.42	0.919	1	A
Heptachlor	ND		ug/kg	1.21	0.543	1	A
Aldrin	ND		ug/kg	2.42	0.853	1	A
Heptachlor epoxide	ND		ug/kg	4.54	1.36	1	A
Endrin	ND		ug/kg	1.01	0.414	1	A
Endrin aldehyde	ND		ug/kg	3.03	1.06	1	A
Endrin ketone	ND		ug/kg	2.42	0.624	1	A
Dieldrin	ND		ug/kg	1.51	0.757	1	A
4,4'-DDE	ND		ug/kg	2.42	0.560	1	A
4,4'-DDD	ND		ug/kg	2.42	0.864	1	A
4,4'-DDT	ND		ug/kg	2.42	1.95	1	A
Endosulfan I	ND		ug/kg	2.42	0.572	1	A
Endosulfan II	ND		ug/kg	2.42	0.810	1	A
Endosulfan sulfate	ND		ug/kg	1.01	0.481	1	A
Methoxychlor	ND		ug/kg	4.54	1.41	1	A
Toxaphene	ND		ug/kg	45.4	12.7	1	A
cis-Chlordane	ND		ug/kg	3.03	0.844	1	A
trans-Chlordane	ND		ug/kg	3.03	0.800	1	A
Chlordane	ND		ug/kg	20.2	8.03	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-08  
 Client ID: CD10428SS08  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:57  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	71		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-09  
**Client ID:** CD10428SS09  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:05  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 10/08/22 19:59  
**Analyst:** MMG  
**Percent Solids:** 66%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 19:26  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.36	0.462	1	A
Lindane	ND		ug/kg	0.982	0.439	1	A
Alpha-BHC	ND		ug/kg	0.982	0.279	1	A
Beta-BHC	ND		ug/kg	2.36	0.894	1	A
Heptachlor	ND		ug/kg	1.18	0.528	1	A
Aldrin	ND		ug/kg	2.36	0.830	1	A
Heptachlor epoxide	ND		ug/kg	4.42	1.32	1	A
Endrin	ND		ug/kg	0.982	0.403	1	A
Endrin aldehyde	ND		ug/kg	2.94	1.03	1	A
Endrin ketone	ND		ug/kg	2.36	0.607	1	A
Dieldrin	ND		ug/kg	1.47	0.736	1	A
4,4'-DDE	ND		ug/kg	2.36	0.545	1	A
4,4'-DDD	ND		ug/kg	2.36	0.840	1	B
4,4'-DDT	ND		ug/kg	2.36	1.90	1	A
Endosulfan I	ND		ug/kg	2.36	0.557	1	A
Endosulfan II	ND		ug/kg	2.36	0.788	1	A
Endosulfan sulfate	ND		ug/kg	0.982	0.467	1	A
Methoxychlor	ND		ug/kg	4.42	1.37	1	A
Toxaphene	ND		ug/kg	44.2	12.4	1	A
cis-Chlordane	ND		ug/kg	2.94	0.821	1	A
trans-Chlordane	ND		ug/kg	2.94	0.778	1	A
Chlordane	ND		ug/kg	19.6	7.81	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-09  
 Client ID: CD10428SS09  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:05  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	61		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-10  
 Client ID: CD10428SS10  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:14  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/08/22 20:11  
 Analyst: MMG  
 Percent Solids: 57%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:26  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.69	0.527	1	A
Lindane	ND		ug/kg	1.12	0.501	1	A
Alpha-BHC	ND		ug/kg	1.12	0.318	1	A
Beta-BHC	ND		ug/kg	2.69	1.02	1	A
Heptachlor	ND		ug/kg	1.34	0.603	1	A
Aldrin	ND		ug/kg	2.69	0.947	1	A
Heptachlor epoxide	ND		ug/kg	5.04	1.51	1	A
Endrin	ND		ug/kg	1.12	0.460	1	A
Endrin aldehyde	ND		ug/kg	3.36	1.18	1	A
Endrin ketone	ND		ug/kg	2.69	0.693	1	A
Dieldrin	ND		ug/kg	1.68	0.841	1	A
4,4'-DDE	0.677	J	ug/kg	2.69	0.622	1	B
4,4'-DDD	ND		ug/kg	2.69	0.960	1	B
4,4'-DDT	ND		ug/kg	2.69	2.16	1	B
Endosulfan I	ND		ug/kg	2.69	0.636	1	A
Endosulfan II	ND		ug/kg	2.69	0.899	1	A
Endosulfan sulfate	ND		ug/kg	1.12	0.534	1	A
Methoxychlor	ND		ug/kg	5.04	1.57	1	A
Toxaphene	ND		ug/kg	50.4	14.1	1	A
cis-Chlordane	ND		ug/kg	3.36	0.937	1	A
trans-Chlordane	ND		ug/kg	3.36	0.888	1	A
Chlordane	ND		ug/kg	22.4	8.91	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-10  
 Client ID: CD10428SS10  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:14  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
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Organochlorine Pesticides by GC - Westborough Lab							
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Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	67		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-11  
**Client ID:** CD10428SS11  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:33  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 10/08/22 20:24  
**Analyst:** MMG  
**Percent Solids:** 77%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 19:26  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.05	0.402	1	A
Lindane	ND		ug/kg	0.856	0.383	1	A
Alpha-BHC	ND		ug/kg	0.856	0.243	1	A
Beta-BHC	ND		ug/kg	2.05	0.779	1	A
Heptachlor	ND		ug/kg	1.03	0.461	1	A
Aldrin	ND		ug/kg	2.05	0.723	1	A
Heptachlor epoxide	ND		ug/kg	3.85	1.16	1	A
Endrin	ND		ug/kg	0.856	0.351	1	A
Endrin aldehyde	ND		ug/kg	2.57	0.899	1	A
Endrin ketone	ND		ug/kg	2.05	0.529	1	A
Dieldrin	ND		ug/kg	1.28	0.642	1	A
4,4'-DDE	ND		ug/kg	2.05	0.475	1	A
4,4'-DDD	ND		ug/kg	2.05	0.733	1	A
4,4'-DDT	ND		ug/kg	2.05	1.65	1	A
Endosulfan I	ND		ug/kg	2.05	0.485	1	A
Endosulfan II	ND		ug/kg	2.05	0.687	1	A
Endosulfan sulfate	ND		ug/kg	0.856	0.408	1	A
Methoxychlor	ND		ug/kg	3.85	1.20	1	A
Toxaphene	ND		ug/kg	38.5	10.8	1	A
cis-Chlordane	ND		ug/kg	2.57	0.716	1	A
trans-Chlordane	ND		ug/kg	2.57	0.678	1	A
Chlordane	ND		ug/kg	17.1	6.81	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-11  
 Client ID: CD10428SS11  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:33  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
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## Organochlorine Pesticides by GC - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	50		30-150	B



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-12  
 Client ID: CD10428SS12  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:40  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/08/22 20:36  
 Analyst: MMG  
 Percent Solids: 74%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:26  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.15	0.421	1	A
Lindane	ND		ug/kg	0.896	0.400	1	A
Alpha-BHC	ND		ug/kg	0.896	0.254	1	A
Beta-BHC	ND		ug/kg	2.15	0.815	1	A
Heptachlor	ND		ug/kg	1.07	0.482	1	A
Aldrin	ND		ug/kg	2.15	0.757	1	A
Heptachlor epoxide	ND		ug/kg	4.03	1.21	1	A
Endrin	ND		ug/kg	0.896	0.367	1	A
Endrin aldehyde	ND		ug/kg	2.69	0.940	1	A
Endrin ketone	ND		ug/kg	2.15	0.553	1	A
Dieldrin	ND		ug/kg	1.34	0.672	1	A
4,4'-DDE	ND		ug/kg	2.15	0.497	1	A
4,4'-DDD	ND		ug/kg	2.15	0.766	1	A
4,4'-DDT	ND		ug/kg	2.15	1.73	1	A
Endosulfan I	ND		ug/kg	2.15	0.508	1	A
Endosulfan II	ND		ug/kg	2.15	0.718	1	A
Endosulfan sulfate	ND		ug/kg	0.896	0.426	1	A
Methoxychlor	ND		ug/kg	4.03	1.25	1	A
Toxaphene	ND		ug/kg	40.3	11.3	1	A
cis-Chlordane	ND		ug/kg	2.69	0.749	1	A
trans-Chlordane	ND		ug/kg	2.69	0.709	1	A
Chlordane	ND		ug/kg	17.9	7.12	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-12  
 Client ID: CD10428SS12  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:40  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	62		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-13  
**Client ID:** CD10428SS13  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:47  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 10/08/22 20:49  
**Analyst:** MMG  
**Percent Solids:** 62%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 19:26  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.52	0.493	1	A
Lindane	ND		ug/kg	1.05	0.469	1	A
Alpha-BHC	ND		ug/kg	1.05	0.298	1	A
Beta-BHC	ND		ug/kg	2.52	0.954	1	A
Heptachlor	ND		ug/kg	1.26	0.564	1	A
Aldrin	ND		ug/kg	2.52	0.886	1	A
Heptachlor epoxide	ND		ug/kg	4.72	1.42	1	A
Endrin	ND		ug/kg	1.05	0.430	1	A
Endrin aldehyde	ND		ug/kg	3.15	1.10	1	A
Endrin ketone	ND		ug/kg	2.52	0.648	1	A
Dieldrin	ND		ug/kg	1.57	0.786	1	A
4,4'-DDE	0.772	J	ug/kg	2.52	0.582	1	B
4,4'-DDD	ND		ug/kg	2.52	0.898	1	B
4,4'-DDT	ND		ug/kg	2.52	2.02	1	B
Endosulfan I	ND		ug/kg	2.52	0.595	1	A
Endosulfan II	ND		ug/kg	2.52	0.841	1	A
Endosulfan sulfate	ND		ug/kg	1.05	0.499	1	A
Methoxychlor	ND		ug/kg	4.72	1.47	1	A
Toxaphene	ND		ug/kg	47.2	13.2	1	A
cis-Chlordane	ND		ug/kg	3.15	0.877	1	A
trans-Chlordane	ND		ug/kg	3.15	0.831	1	A
Chlordane	ND		ug/kg	21.0	8.34	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-13  
 Client ID: CD10428SS13  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:47  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	64		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-14  
**Client ID:** CD10428SS14  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 14:00  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 10/08/22 21:02  
**Analyst:** MMG  
**Percent Solids:** 67%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 19:26  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.30	0.451	1	A
Lindane	ND		ug/kg	0.960	0.429	1	A
Alpha-BHC	ND		ug/kg	0.960	0.272	1	A
Beta-BHC	ND		ug/kg	2.30	0.873	1	A
Heptachlor	ND		ug/kg	1.15	0.516	1	A
Aldrin	ND		ug/kg	2.30	0.811	1	A
Heptachlor epoxide	ND		ug/kg	4.32	1.30	1	A
Endrin	ND		ug/kg	0.960	0.393	1	A
Endrin aldehyde	ND		ug/kg	2.88	1.01	1	A
Endrin ketone	ND		ug/kg	2.30	0.593	1	A
Dieldrin	ND		ug/kg	1.44	0.720	1	A
4,4'-DDE	ND		ug/kg	2.30	0.532	1	B
4,4'-DDD	ND		ug/kg	2.30	0.821	1	A
4,4'-DDT	ND		ug/kg	2.30	1.85	1	A
Endosulfan I	ND		ug/kg	2.30	0.544	1	A
Endosulfan II	ND		ug/kg	2.30	0.770	1	A
Endosulfan sulfate	ND		ug/kg	0.960	0.457	1	A
Methoxychlor	ND		ug/kg	4.32	1.34	1	A
Toxaphene	ND		ug/kg	43.2	12.1	1	A
cis-Chlordane	ND		ug/kg	2.88	0.802	1	A
trans-Chlordane	ND		ug/kg	2.88	0.760	1	A
Chlordane	ND		ug/kg	19.2	7.63	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-14  
 Client ID: CD10428SS14  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 14:00  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	60		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-15  
 Client ID: CD10428SS15  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 14:02  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/08/22 21:14  
 Analyst: MMG  
 Percent Solids: 70%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:26  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.18	0.428	1	A
Lindane	ND		ug/kg	0.910	0.407	1	A
Alpha-BHC	ND		ug/kg	0.910	0.258	1	A
Beta-BHC	ND		ug/kg	2.18	0.828	1	A
Heptachlor	ND		ug/kg	1.09	0.490	1	A
Aldrin	ND		ug/kg	2.18	0.769	1	A
Heptachlor epoxide	ND		ug/kg	4.10	1.23	1	A
Endrin	ND		ug/kg	0.910	0.373	1	A
Endrin aldehyde	ND		ug/kg	2.73	0.956	1	A
Endrin ketone	ND		ug/kg	2.18	0.563	1	A
Dieldrin	ND		ug/kg	1.36	0.683	1	A
4,4'-DDE	ND		ug/kg	2.18	0.505	1	A
4,4'-DDD	ND		ug/kg	2.18	0.779	1	A
4,4'-DDT	ND		ug/kg	2.18	1.76	1	A
Endosulfan I	ND		ug/kg	2.18	0.516	1	A
Endosulfan II	ND		ug/kg	2.18	0.730	1	A
Endosulfan sulfate	ND		ug/kg	0.910	0.433	1	A
Methoxychlor	ND		ug/kg	4.10	1.27	1	A
Toxaphene	ND		ug/kg	41.0	11.5	1	A
cis-Chlordane	ND		ug/kg	2.73	0.761	1	A
trans-Chlordane	ND		ug/kg	2.73	0.721	1	A
Chlordane	ND		ug/kg	18.2	7.24	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-15  
 Client ID: CD10428SS15  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 14:02  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	65		30-150	B



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-16  
 Client ID: CD10428SS16  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 14:04  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/08/22 21:27  
 Analyst: MMG  
 Percent Solids: 77%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:32  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.99	0.390	1	A
Lindane	ND		ug/kg	0.830	0.371	1	A
Alpha-BHC	ND		ug/kg	0.830	0.236	1	A
Beta-BHC	ND		ug/kg	1.99	0.756	1	A
Heptachlor	ND		ug/kg	0.996	0.447	1	A
Aldrin	ND		ug/kg	1.99	0.702	1	A
Heptachlor epoxide	ND		ug/kg	3.74	1.12	1	A
Endrin	ND		ug/kg	0.830	0.340	1	A
Endrin aldehyde	ND		ug/kg	2.49	0.872	1	A
Endrin ketone	ND		ug/kg	1.99	0.513	1	A
Dieldrin	ND		ug/kg	1.24	0.623	1	A
4,4'-DDE	ND		ug/kg	1.99	0.461	1	A
4,4'-DDD	ND		ug/kg	1.99	0.711	1	A
4,4'-DDT	ND		ug/kg	1.99	1.60	1	A
Endosulfan I	ND		ug/kg	1.99	0.471	1	A
Endosulfan II	ND		ug/kg	1.99	0.666	1	A
Endosulfan sulfate	ND		ug/kg	0.830	0.395	1	A
Methoxychlor	ND		ug/kg	3.74	1.16	1	A
Toxaphene	ND		ug/kg	37.4	10.5	1	A
cis-Chlordane	ND		ug/kg	2.49	0.694	1	A
trans-Chlordane	ND		ug/kg	2.49	0.658	1	A
Chlordane	ND		ug/kg	16.6	6.60	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-16  
 Client ID: CD10428SS16  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 14:04  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	65		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-17  
**Client ID:** CD10428SS17  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:00  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 10/08/22 21:39  
**Analyst:** MMG  
**Percent Solids:** 67%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/06/22 19:32  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.29	0.449	1	A
Lindane	ND		ug/kg	0.956	0.427	1	A
Alpha-BHC	ND		ug/kg	0.956	0.271	1	A
Beta-BHC	ND		ug/kg	2.29	0.870	1	A
Heptachlor	ND		ug/kg	1.15	0.514	1	A
Aldrin	ND		ug/kg	2.29	0.808	1	A
Heptachlor epoxide	ND		ug/kg	4.30	1.29	1	A
Endrin	ND		ug/kg	0.956	0.392	1	A
Endrin aldehyde	ND		ug/kg	2.87	1.00	1	A
Endrin ketone	ND		ug/kg	2.29	0.591	1	A
Dieldrin	ND		ug/kg	1.43	0.717	1	A
4,4'-DDE	ND		ug/kg	2.29	0.530	1	B
4,4'-DDD	ND		ug/kg	2.29	0.818	1	A
4,4'-DDT	ND		ug/kg	2.29	1.84	1	A
Endosulfan I	ND		ug/kg	2.29	0.542	1	A
Endosulfan II	ND		ug/kg	2.29	0.767	1	A
Endosulfan sulfate	ND		ug/kg	0.956	0.455	1	A
Methoxychlor	ND		ug/kg	4.30	1.34	1	A
Toxaphene	ND		ug/kg	43.0	12.0	1	A
cis-Chlordane	ND		ug/kg	2.87	0.799	1	A
trans-Chlordane	ND		ug/kg	2.87	0.757	1	A
Chlordane	ND		ug/kg	19.1	7.60	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-17  
 Client ID: CD10428SS17  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:00  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	62		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-18  
 Client ID: CD10428SS18  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:02  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/08/22 21:52  
 Analyst: MMG  
 Percent Solids: 72%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:32  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.15	0.421	1	A
Lindane	ND		ug/kg	0.895	0.400	1	A
Alpha-BHC	ND		ug/kg	0.895	0.254	1	A
Beta-BHC	ND		ug/kg	2.15	0.814	1	A
Heptachlor	ND		ug/kg	1.07	0.482	1	A
Aldrin	ND		ug/kg	2.15	0.756	1	A
Heptachlor epoxide	ND		ug/kg	4.03	1.21	1	A
Endrin	ND		ug/kg	0.895	0.367	1	A
Endrin aldehyde	ND		ug/kg	2.68	0.940	1	A
Endrin ketone	ND		ug/kg	2.15	0.553	1	A
Dieldrin	ND		ug/kg	1.34	0.671	1	A
4,4'-DDE	ND		ug/kg	2.15	0.497	1	A
4,4'-DDD	ND		ug/kg	2.15	0.766	1	A
4,4'-DDT	ND		ug/kg	2.15	1.73	1	A
Endosulfan I	ND		ug/kg	2.15	0.508	1	A
Endosulfan II	ND		ug/kg	2.15	0.718	1	A
Endosulfan sulfate	ND		ug/kg	0.895	0.426	1	A
Methoxychlor	ND		ug/kg	4.03	1.25	1	A
Toxaphene	ND		ug/kg	40.3	11.3	1	A
cis-Chlordane	ND		ug/kg	2.68	0.748	1	A
trans-Chlordane	ND		ug/kg	2.68	0.709	1	A
Chlordane	ND		ug/kg	17.9	7.12	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-18  
 Client ID: CD10428SS18  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:02  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	100		30-150	A
Decachlorobiphenyl	80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	76		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-19  
 Client ID: CD10428SS19  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:03  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/08/22 22:04  
 Analyst: MMG  
 Percent Solids: 64%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:32  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	2.38	0.465	1	A
Lindane	ND		ug/kg	0.990	0.443	1	A
Alpha-BHC	ND		ug/kg	0.990	0.281	1	A
Beta-BHC	ND		ug/kg	2.38	0.901	1	A
Heptachlor	ND		ug/kg	1.19	0.533	1	A
Aldrin	ND		ug/kg	2.38	0.837	1	A
Heptachlor epoxide	ND		ug/kg	4.46	1.34	1	A
Endrin	ND		ug/kg	0.990	0.406	1	A
Endrin aldehyde	ND		ug/kg	2.97	1.04	1	A
Endrin ketone	ND		ug/kg	2.38	0.612	1	A
Dieldrin	ND		ug/kg	1.48	0.743	1	A
4,4'-DDE	ND		ug/kg	2.38	0.550	1	A
4,4'-DDD	ND		ug/kg	2.38	0.848	1	A
4,4'-DDT	ND		ug/kg	2.38	1.91	1	A
Endosulfan I	ND		ug/kg	2.38	0.561	1	A
Endosulfan II	ND		ug/kg	2.38	0.794	1	A
Endosulfan sulfate	ND		ug/kg	0.990	0.471	1	A
Methoxychlor	ND		ug/kg	4.46	1.39	1	A
Toxaphene	ND		ug/kg	44.6	12.5	1	A
cis-Chlordane	ND		ug/kg	2.97	0.828	1	A
trans-Chlordane	ND		ug/kg	2.97	0.784	1	A
Chlordane	ND		ug/kg	19.8	7.87	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-19  
 Client ID: CD10428SS19  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:03  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	98		30-150	A
Decachlorobiphenyl	83		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	78		30-150	B



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-20  
 Client ID: CD10428SS20  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:26  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/08/22 19:21  
 Analyst: MMG  
 Percent Solids: 88%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:32  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/08/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.75	0.342	1	A
Lindane	ND		ug/kg	0.728	0.325	1	A
Alpha-BHC	ND		ug/kg	0.728	0.207	1	A
Beta-BHC	ND		ug/kg	1.75	0.662	1	A
Heptachlor	ND		ug/kg	0.874	0.392	1	A
Aldrin	ND		ug/kg	1.75	0.615	1	A
Heptachlor epoxide	ND		ug/kg	3.28	0.983	1	A
Endrin	ND		ug/kg	0.728	0.298	1	A
Endrin aldehyde	ND		ug/kg	2.18	0.764	1	A
Endrin ketone	ND		ug/kg	1.75	0.450	1	A
Dieldrin	ND		ug/kg	1.09	0.546	1	A
4,4'-DDE	ND		ug/kg	1.75	0.404	1	A
4,4'-DDD	0.743	JIP	ug/kg	1.75	0.623	1	B
4,4'-DDT	ND		ug/kg	1.75	1.40	1	A
Endosulfan I	ND		ug/kg	1.75	0.413	1	A
Endosulfan II	ND		ug/kg	1.75	0.584	1	A
Endosulfan sulfate	ND		ug/kg	0.728	0.346	1	A
Methoxychlor	ND		ug/kg	3.28	1.02	1	A
Toxaphene	ND		ug/kg	32.8	9.17	1	A
cis-Chlordane	ND		ug/kg	2.18	0.608	1	A
trans-Chlordane	ND		ug/kg	2.18	0.576	1	A
Chlordane	ND		ug/kg	14.6	5.79	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-20  
 Client ID: CD10428SS20  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:26  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	93		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	124		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-21  
 Client ID: CD10428SS21  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:31  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/08/22 22:29  
 Analyst: MMG  
 Percent Solids: 86%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:32  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.79	0.350	1	A
Lindane	ND		ug/kg	0.744	0.333	1	A
Alpha-BHC	ND		ug/kg	0.744	0.211	1	A
Beta-BHC	ND		ug/kg	1.79	0.677	1	A
Heptachlor	ND		ug/kg	0.893	0.400	1	A
Aldrin	ND		ug/kg	1.79	0.629	1	A
Heptachlor epoxide	ND		ug/kg	3.35	1.00	1	A
Endrin	ND		ug/kg	0.744	0.305	1	A
Endrin aldehyde	ND		ug/kg	2.23	0.781	1	A
Endrin ketone	ND		ug/kg	1.79	0.460	1	A
Dieldrin	ND		ug/kg	1.12	0.558	1	A
4,4'-DDE	ND		ug/kg	1.79	0.413	1	A
4,4'-DDD	ND		ug/kg	1.79	0.637	1	A
4,4'-DDT	ND		ug/kg	1.79	1.44	1	A
Endosulfan I	ND		ug/kg	1.79	0.422	1	A
Endosulfan II	ND		ug/kg	1.79	0.597	1	A
Endosulfan sulfate	ND		ug/kg	0.744	0.354	1	A
Methoxychlor	ND		ug/kg	3.35	1.04	1	A
Toxaphene	ND		ug/kg	33.5	9.38	1	A
cis-Chlordane	ND		ug/kg	2.23	0.622	1	A
trans-Chlordane	ND		ug/kg	2.23	0.589	1	A
Chlordane	ND		ug/kg	14.9	5.92	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-21  
 Client ID: CD10428SS21  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:31  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	98		30-150	A
Decachlorobiphenyl	80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	73		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-22  
 Client ID: CD10428SS22  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:35  
 Date Received: 10/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 10/08/22 22:42  
 Analyst: MMG  
 Percent Solids: 85%

Extraction Method: EPA 3546  
 Extraction Date: 10/06/22 19:32  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 10/07/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.81	0.354	1	A
Lindane	ND		ug/kg	0.753	0.337	1	A
Alpha-BHC	ND		ug/kg	0.753	0.214	1	A
Beta-BHC	ND		ug/kg	1.81	0.686	1	A
Heptachlor	ND		ug/kg	0.904	0.405	1	A
Aldrin	ND		ug/kg	1.81	0.636	1	A
Heptachlor epoxide	ND		ug/kg	3.39	1.02	1	A
Endrin	ND		ug/kg	0.753	0.309	1	A
Endrin aldehyde	ND		ug/kg	2.26	0.791	1	A
Endrin ketone	ND		ug/kg	1.81	0.466	1	A
Dieldrin	ND		ug/kg	1.13	0.565	1	A
4,4'-DDE	ND		ug/kg	1.81	0.418	1	A
4,4'-DDD	ND		ug/kg	1.81	0.645	1	A
4,4'-DDT	ND		ug/kg	1.81	1.45	1	A
Endosulfan I	ND		ug/kg	1.81	0.427	1	A
Endosulfan II	ND		ug/kg	1.81	0.604	1	A
Endosulfan sulfate	ND		ug/kg	0.753	0.359	1	A
Methoxychlor	ND		ug/kg	3.39	1.05	1	A
Toxaphene	ND		ug/kg	33.9	9.49	1	A
cis-Chlordane	ND		ug/kg	2.26	0.630	1	A
trans-Chlordane	ND		ug/kg	2.26	0.597	1	A
Chlordane	ND		ug/kg	15.1	5.99	1	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-22  
 Client ID: CD10428SS22  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:35  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	110		30-150	A
Decachlorobiphenyl	86		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	77		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8081B  
Analytical Date: 10/06/22 13:33  
Analyst: AR

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 00:48  
Cleanup Method: EPA 3620B  
Cleanup Date: 10/06/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 10/06/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-06 Batch: WG1696018-1						
Delta-BHC	ND		ug/kg	1.55	0.303	A
Lindane	ND		ug/kg	0.646	0.288	A
Alpha-BHC	ND		ug/kg	0.646	0.183	A
Beta-BHC	ND		ug/kg	1.55	0.587	A
Heptachlor	ND		ug/kg	0.775	0.347	A
Aldrin	ND		ug/kg	1.55	0.546	A
Heptachlor epoxide	ND		ug/kg	2.90	0.872	A
Endrin	ND		ug/kg	0.646	0.265	A
Endrin aldehyde	ND		ug/kg	1.94	0.678	A
Endrin ketone	ND		ug/kg	1.55	0.399	A
Dieldrin	ND		ug/kg	0.968	0.484	A
4,4'-DDE	ND		ug/kg	1.55	0.358	A
4,4'-DDD	ND		ug/kg	1.55	0.553	A
4,4'-DDT	ND		ug/kg	1.55	1.24	A
Endosulfan I	ND		ug/kg	1.55	0.366	A
Endosulfan II	ND		ug/kg	1.55	0.518	A
Endosulfan sulfate	ND		ug/kg	0.646	0.307	A
Methoxychlor	ND		ug/kg	2.90	0.904	A
Toxaphene	ND		ug/kg	29.0	8.13	A
cis-Chlordane	ND		ug/kg	1.94	0.540	A
trans-Chlordane	ND		ug/kg	1.94	0.511	A
Chlordane	ND		ug/kg	12.9	5.13	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8081B  
Analytical Date: 10/06/22 13:33  
Analyst: AR

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 00:48  
Cleanup Method: EPA 3620B  
Cleanup Date: 10/06/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 10/06/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-06 Batch: WG1696018-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	111		30-150	A
Decachlorobiphenyl	86		30-150	A
2,4,5,6-Tetrachloro-m-xylene	95		30-150	B
Decachlorobiphenyl	82		30-150	B



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8081B  
Analytical Date: 10/08/22 18:06  
Analyst: EJL

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 18:57  
Cleanup Method: EPA 3620B  
Cleanup Date: 10/07/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 10/08/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 07-22 Batch: WG1696466-1						
Delta-BHC	ND		ug/kg	1.52	0.298	A
Lindane	ND		ug/kg	0.634	0.283	A
Alpha-BHC	ND		ug/kg	0.634	0.180	A
Beta-BHC	ND		ug/kg	1.52	0.577	A
Heptachlor	ND		ug/kg	0.760	0.341	A
Aldrin	ND		ug/kg	1.52	0.535	A
Heptachlor epoxide	ND		ug/kg	2.85	0.856	A
Endrin	ND		ug/kg	0.634	0.260	A
Endrin aldehyde	ND		ug/kg	1.90	0.665	A
Endrin ketone	ND		ug/kg	1.52	0.392	A
Dieldrin	ND		ug/kg	0.950	0.475	A
4,4'-DDE	ND		ug/kg	1.52	0.352	A
4,4'-DDD	ND		ug/kg	1.52	0.542	A
4,4'-DDT	ND		ug/kg	1.52	1.22	A
Endosulfan I	ND		ug/kg	1.52	0.359	A
Endosulfan II	ND		ug/kg	1.52	0.508	A
Endosulfan sulfate	ND		ug/kg	0.634	0.302	A
Methoxychlor	ND		ug/kg	2.85	0.887	A
Toxaphene	ND		ug/kg	28.5	7.98	A
cis-Chlordane	ND		ug/kg	1.90	0.530	A
trans-Chlordane	ND		ug/kg	1.90	0.502	A
Chlordane	ND		ug/kg	12.7	5.04	A

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8081B  
Analytical Date: 10/08/22 18:06  
Analyst: EJL

Extraction Method: EPA 3546  
Extraction Date: 10/06/22 18:57  
Cleanup Method: EPA 3620B  
Cleanup Date: 10/07/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 10/08/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 07-22 Batch: WG1696466-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	68		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-06 Batch: WG1696018-2 WG1696018-3									
Delta-BHC	65		63		30-150	3		30	A
Lindane	94		88		30-150	7		30	A
Alpha-BHC	101		94		30-150	7		30	A
Beta-BHC	93		88		30-150	6		30	A
Heptachlor	99		92		30-150	7		30	A
Aldrin	95		88		30-150	8		30	A
Heptachlor epoxide	91		84		30-150	8		30	A
Endrin	101		94		30-150	7		30	A
Endrin aldehyde	78		76		30-150	3		30	A
Endrin ketone	94		89		30-150	5		30	A
Dieldrin	111		103		30-150	7		30	A
4,4'-DDE	107		100		30-150	7		30	A
4,4'-DDD	119		111		30-150	7		30	A
4,4'-DDT	106		99		30-150	7		30	A
Endosulfan I	96		90		30-150	6		30	A
Endosulfan II	100		94		30-150	6		30	A
Endosulfan sulfate	78		73		30-150	7		30	A
Methoxychlor	96		94		30-150	2		30	A
cis-Chlordane	79		75		30-150	5		30	A
trans-Chlordane	110		104		30-150	6		30	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2254892

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-06 Batch: WG1696018-2 WG1696018-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	101		99		30-150	A
Decachlorobiphenyl	78		74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		79		30-150	B
Decachlorobiphenyl	74		78		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 07-22 Batch: WG1696466-2 WG1696466-3									
Delta-BHC	47		50		30-150	6		30	A
Lindane	70		71		30-150	1		30	A
Alpha-BHC	76		78		30-150	3		30	A
Beta-BHC	71		72		30-150	1		30	A
Heptachlor	76		76		30-150	0		30	A
Aldrin	73		72		30-150	1		30	A
Heptachlor epoxide	70		66		30-150	6		30	A
Endrin	73		70		30-150	4		30	A
Endrin aldehyde	46		47		30-150	2		30	A
Endrin ketone	65		66		30-150	2		30	A
Dieldrin	81		77		30-150	5		30	A
4,4'-DDE	77		74		30-150	4		30	A
4,4'-DDD	82		78		30-150	5		30	A
4,4'-DDT	76		72		30-150	5		30	A
Endosulfan I	71		69		30-150	3		30	A
Endosulfan II	71		69		30-150	3		30	A
Endosulfan sulfate	50		50		30-150	0		30	A
Methoxychlor	68		66		30-150	3		30	A
cis-Chlordane	61		59		30-150	3		30	A
trans-Chlordane	81		77		30-150	5		30	A

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 07-22 Batch: WG1696466-2 WG1696466-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	82		84		30-150	A
Decachlorobiphenyl	66		64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		68		30-150	B
Decachlorobiphenyl	62		60		30-150	B

## METALS

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-01  
 Client ID: CD10428SS01  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:30  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 63%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	10300		mg/kg	12.4	3.34	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	6.20	0.471	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Arsenic, Total	37.6		mg/kg	1.24	0.258	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Barium, Total	271		mg/kg	1.24	0.216	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Beryllium, Total	1.65		mg/kg	0.620	0.041	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Cadmium, Total	0.483	J	mg/kg	1.24	0.121	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Calcium, Total	4420		mg/kg	12.4	4.34	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Chromium, Total	16.9		mg/kg	1.24	0.119	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Cobalt, Total	6.82		mg/kg	2.48	0.206	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Copper, Total	16.4		mg/kg	1.24	0.320	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Iron, Total	16500		mg/kg	6.20	1.12	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Lead, Total	9.00		mg/kg	6.20	0.332	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Magnesium, Total	1340		mg/kg	12.4	1.91	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Manganese, Total	88.5		mg/kg	1.24	0.197	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Mercury, Total	0.205		mg/kg	0.107	0.070	1	10/05/22 23:05	10/06/22 17:56	EPA 7471B	1,7471B	ZK
Nickel, Total	157		mg/kg	3.10	0.300	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Potassium, Total	785		mg/kg	310	17.8	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	2.48	0.320	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.24	0.351	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Sodium, Total	328		mg/kg	248	3.90	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.48	0.390	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Vanadium, Total	1110		mg/kg	1.24	0.252	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW
Zinc, Total	22.6		mg/kg	6.20	0.363	2	10/05/22 22:15	10/09/22 16:56	EPA 3050B	1,6010D	EW





**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-02  
 Client ID: CD10428SS02  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:37  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 56%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	12400		mg/kg	13.9	3.74	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	6.93	0.527	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Arsenic, Total	44.3		mg/kg	1.39	0.288	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Barium, Total	354		mg/kg	1.39	0.241	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Beryllium, Total	1.73		mg/kg	0.693	0.046	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Cadmium, Total	0.444	J	mg/kg	1.39	0.136	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Calcium, Total	5940		mg/kg	13.9	4.85	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Chromium, Total	19.3		mg/kg	1.39	0.133	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Cobalt, Total	5.92		mg/kg	2.77	0.230	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Copper, Total	15.8		mg/kg	1.39	0.358	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Iron, Total	16200		mg/kg	6.93	1.25	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Lead, Total	8.47		mg/kg	6.93	0.371	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Magnesium, Total	1790		mg/kg	13.9	2.13	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Manganese, Total	60.8		mg/kg	1.39	0.220	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Mercury, Total	0.127	J	mg/kg	0.129	0.084	1	10/05/22 23:05	10/06/22 18:16	EPA 7471B	1,7471B	ZK
Nickel, Total	13.0		mg/kg	3.46	0.335	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Potassium, Total	985		mg/kg	346	20.0	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Selenium, Total	0.721	J	mg/kg	2.77	0.358	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.39	0.392	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Sodium, Total	463		mg/kg	277	4.36	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.77	0.436	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Vanadium, Total	1140		mg/kg	1.39	0.281	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW
Zinc, Total	20.6		mg/kg	6.93	0.406	2	10/05/22 22:15	10/09/22 17:36	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-03

Date Collected: 10/04/22 11:40

Client ID: CD10428SS03

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 55%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	9860		mg/kg	14.2	3.82	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	7.08	0.538	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Arsenic, Total	34.4		mg/kg	1.42	0.294	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Barium, Total	349		mg/kg	1.42	0.246	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Beryllium, Total	1.76		mg/kg	0.708	0.047	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Cadmium, Total	0.524	J	mg/kg	1.42	0.139	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Calcium, Total	7710		mg/kg	14.2	4.96	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Chromium, Total	16.9		mg/kg	1.42	0.136	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Cobalt, Total	6.12		mg/kg	2.83	0.235	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Copper, Total	17.5		mg/kg	1.42	0.365	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Iron, Total	19700		mg/kg	7.08	1.28	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Lead, Total	8.04		mg/kg	7.08	0.379	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Magnesium, Total	969		mg/kg	14.2	2.18	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Manganese, Total	50.2		mg/kg	1.42	0.225	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Mercury, Total	0.226		mg/kg	0.127	0.083	1	10/05/22 23:05	10/06/22 18:19	EPA 7471B	1,7471B	ZK
Nickel, Total	13.5		mg/kg	3.54	0.343	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Potassium, Total	738		mg/kg	354	20.4	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Selenium, Total	0.963	J	mg/kg	2.83	0.365	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.42	0.401	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Sodium, Total	351		mg/kg	283	4.46	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.83	0.446	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Vanadium, Total	1100		mg/kg	1.42	0.287	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW
Zinc, Total	22.1		mg/kg	7.08	0.415	2	10/05/22 22:15	10/09/22 17:41	EPA 3050B	1,6010D	EW



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-04  
 Client ID: CD10428SS04  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 11:45  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 48%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	13400		mg/kg	16.1	4.34	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	8.04	0.611	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Arsenic, Total	43.8		mg/kg	1.61	0.334	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Barium, Total	529		mg/kg	1.61	0.280	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Beryllium, Total	1.70		mg/kg	0.804	0.053	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Cadmium, Total	0.611	J	mg/kg	1.61	0.158	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Calcium, Total	9340		mg/kg	16.1	5.63	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Chromium, Total	20.8		mg/kg	1.61	0.154	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Cobalt, Total	7.03		mg/kg	3.22	0.267	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Copper, Total	22.7		mg/kg	1.61	0.415	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Iron, Total	21600		mg/kg	8.04	1.45	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Lead, Total	10.2		mg/kg	8.04	0.431	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Magnesium, Total	1250		mg/kg	16.1	2.48	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Manganese, Total	54.9		mg/kg	1.61	0.256	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Mercury, Total	0.233		mg/kg	0.143	0.093	1	10/05/22 23:05	10/06/22 18:23	EPA 7471B	1,7471B	ZK
Nickel, Total	15.4		mg/kg	4.02	0.389	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Potassium, Total	1120		mg/kg	402	23.2	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Selenium, Total	2.12	J	mg/kg	3.22	0.415	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.61	0.455	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Sodium, Total	649		mg/kg	322	5.07	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	3.22	0.507	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Vanadium, Total	1120		mg/kg	1.61	0.326	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW
Zinc, Total	26.0		mg/kg	8.04	0.471	2	10/05/22 22:15	10/09/22 17:46	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-05

Date Collected: 10/04/22 12:16

Client ID: CD10428SS05

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	9520		mg/kg	9.76	2.63	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	4.88	0.371	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Arsenic, Total	31.2		mg/kg	0.976	0.203	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Barium, Total	332		mg/kg	0.976	0.170	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Beryllium, Total	1.02		mg/kg	0.488	0.032	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Cadmium, Total	1.29		mg/kg	0.976	0.096	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Calcium, Total	8690		mg/kg	9.76	3.41	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Chromium, Total	12.6		mg/kg	0.976	0.094	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Cobalt, Total	6.61		mg/kg	1.95	0.162	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Copper, Total	11.4		mg/kg	0.976	0.252	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Iron, Total	84200		mg/kg	24.4	4.40	10	10/05/22 22:15	10/09/22 19:37	EPA 3050B	1,6010D	EW
Lead, Total	3.59	J	mg/kg	4.88	0.261	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Magnesium, Total	999		mg/kg	9.76	1.50	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Manganese, Total	134		mg/kg	0.976	0.155	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Mercury, Total	0.066	J	mg/kg	0.088	0.058	1	10/05/22 23:05	10/06/22 18:26	EPA 7471B	1,7471B	ZK
Nickel, Total	14.8		mg/kg	2.44	0.236	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Potassium, Total	724		mg/kg	244	14.0	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Selenium, Total	0.810	J	mg/kg	1.95	0.252	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.976	0.276	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Sodium, Total	253		mg/kg	195	3.07	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.95	0.307	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Vanadium, Total	30.2		mg/kg	0.976	0.198	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW
Zinc, Total	14.4		mg/kg	4.88	0.286	2	10/05/22 22:15	10/09/22 17:51	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-06

Date Collected: 10/04/22 12:25

Client ID: CD10428SS06

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 75%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	9450		mg/kg	10.4	2.81	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	5.21	0.396	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Arsenic, Total	30.0		mg/kg	1.04	0.217	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Barium, Total	342		mg/kg	1.04	0.181	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Beryllium, Total	0.969		mg/kg	0.521	0.034	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Cadmium, Total	1.22		mg/kg	1.04	0.102	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Calcium, Total	11600		mg/kg	10.4	3.65	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Chromium, Total	13.6		mg/kg	1.04	0.100	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Cobalt, Total	7.25		mg/kg	2.08	0.173	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Copper, Total	13.1		mg/kg	1.04	0.269	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Iron, Total	75600		mg/kg	26.0	4.70	10	10/05/22 22:15	10/09/22 19:42	EPA 3050B	1,6010D	EW
Lead, Total	3.43	J	mg/kg	5.21	0.279	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Magnesium, Total	1010		mg/kg	10.4	1.60	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Manganese, Total	112		mg/kg	1.04	0.166	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Mercury, Total	0.078	J	mg/kg	0.095	0.062	1	10/05/22 23:05	10/06/22 18:29	EPA 7471B	1,7471B	ZK
Nickel, Total	15.7		mg/kg	2.60	0.252	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Potassium, Total	628		mg/kg	260	15.0	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Selenium, Total	1.14	J	mg/kg	2.08	0.269	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.04	0.295	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Sodium, Total	249		mg/kg	208	3.28	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Thallium, Total	0.333	J	mg/kg	2.08	0.328	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Vanadium, Total	29.5		mg/kg	1.04	0.212	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW
Zinc, Total	15.0		mg/kg	5.21	0.305	2	10/05/22 22:15	10/09/22 17:56	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-07

Date Collected: 10/04/22 12:35

Client ID: CD10428SS07

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 69%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	11200		mg/kg	11.5	3.10	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	5.74	0.436	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Arsenic, Total	30.5		mg/kg	1.15	0.239	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Barium, Total	365		mg/kg	1.15	0.200	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Beryllium, Total	1.24		mg/kg	0.574	0.038	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Cadmium, Total	0.666	J	mg/kg	1.15	0.112	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Calcium, Total	14800		mg/kg	11.5	4.02	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Chromium, Total	15.6		mg/kg	1.15	0.110	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Cobalt, Total	5.85		mg/kg	2.30	0.190	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Copper, Total	12.0		mg/kg	1.15	0.296	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Iron, Total	30500		mg/kg	5.74	1.04	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Lead, Total	5.48	J	mg/kg	5.74	0.308	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Magnesium, Total	1380		mg/kg	11.5	1.77	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Manganese, Total	81.4		mg/kg	1.15	0.182	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Mercury, Total	0.095	J	mg/kg	0.096	0.063	1	10/05/22 23:05	10/06/22 18:33	EPA 7471B	1,7471B	ZK
Nickel, Total	12.4		mg/kg	2.87	0.278	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Potassium, Total	631		mg/kg	287	16.5	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Selenium, Total	1.51	J	mg/kg	2.30	0.296	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.15	0.325	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Sodium, Total	412		mg/kg	230	3.62	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.30	0.362	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Vanadium, Total	27.8		mg/kg	1.15	0.233	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW
Zinc, Total	16.3		mg/kg	5.74	0.336	2	10/05/22 22:15	10/09/22 18:01	EPA 3050B	1,6010D	EW



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-08  
 Client ID: CD10428SS08  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 12:57  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 63%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	10600		mg/kg	12.3	3.33	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	6.16	0.468	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Arsenic, Total	29.5		mg/kg	1.23	0.256	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Barium, Total	267		mg/kg	1.23	0.214	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Beryllium, Total	1.50		mg/kg	0.616	0.041	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Cadmium, Total	0.628	J	mg/kg	1.23	0.121	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Calcium, Total	2830		mg/kg	12.3	4.31	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Chromium, Total	19.1		mg/kg	1.23	0.118	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Cobalt, Total	11.0		mg/kg	2.46	0.204	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Copper, Total	29.7		mg/kg	1.23	0.318	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Iron, Total	20800		mg/kg	6.16	1.11	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Lead, Total	8.88		mg/kg	6.16	0.330	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Magnesium, Total	1220		mg/kg	12.3	1.90	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Manganese, Total	133		mg/kg	1.23	0.196	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Mercury, Total	0.170		mg/kg	0.109	0.071	1	10/05/22 23:05	10/06/22 18:36	EPA 7471B	1,7471B	ZK
Nickel, Total	232		mg/kg	3.08	0.298	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Potassium, Total	845		mg/kg	308	17.7	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	2.46	0.318	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.23	0.349	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Sodium, Total	227	J	mg/kg	246	3.88	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.46	0.388	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Vanadium, Total	1020		mg/kg	1.23	0.250	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW
Zinc, Total	37.7		mg/kg	6.16	0.361	2	10/05/22 22:15	10/09/22 18:06	EPA 3050B	1,6010D	EW





**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-09  
 Client ID: CD10428SS09  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:05  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 66%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	10300		mg/kg	12.0	3.24	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	6.00	0.456	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Arsenic, Total	34.9		mg/kg	1.20	0.249	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Barium, Total	371		mg/kg	1.20	0.209	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Beryllium, Total	1.40		mg/kg	0.600	0.040	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Cadmium, Total	0.900	J	mg/kg	1.20	0.118	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Calcium, Total	5650		mg/kg	12.0	4.20	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Chromium, Total	15.8		mg/kg	1.20	0.115	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Cobalt, Total	7.38		mg/kg	2.40	0.199	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Copper, Total	19.8		mg/kg	1.20	0.309	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Iron, Total	44000		mg/kg	6.00	1.08	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Lead, Total	4.52	J	mg/kg	6.00	0.321	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Magnesium, Total	1040		mg/kg	12.0	1.85	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Manganese, Total	77.1		mg/kg	1.20	0.191	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Mercury, Total	0.171		mg/kg	0.104	0.068	1	10/05/22 23:05	10/06/22 18:39	EPA 7471B	1,7471B	ZK
Nickel, Total	186		mg/kg	3.00	0.290	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Potassium, Total	750		mg/kg	300	17.3	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Selenium, Total	1.02	J	mg/kg	2.40	0.309	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.20	0.339	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Sodium, Total	345		mg/kg	240	3.78	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.40	0.378	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Vanadium, Total	172		mg/kg	1.20	0.243	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW
Zinc, Total	18.5		mg/kg	6.00	0.351	2	10/05/22 22:15	10/09/22 18:11	EPA 3050B	1,6010D	EW





Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-10

Date Collected: 10/04/22 13:14

Client ID: CD10428SS10

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 57%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	12900		mg/kg	14.0	3.77	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	6.98	0.530	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Arsenic, Total	54.9		mg/kg	1.40	0.290	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Barium, Total	475		mg/kg	1.40	0.243	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Beryllium, Total	1.63		mg/kg	0.698	0.046	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Cadmium, Total	0.921	J	mg/kg	1.40	0.137	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Calcium, Total	8520		mg/kg	14.0	4.88	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Chromium, Total	18.6		mg/kg	1.40	0.134	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Cobalt, Total	7.53		mg/kg	2.79	0.232	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Copper, Total	19.9		mg/kg	1.40	0.360	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Iron, Total	38600		mg/kg	6.98	1.26	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Lead, Total	7.35		mg/kg	6.98	0.374	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Magnesium, Total	1420		mg/kg	14.0	2.15	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Manganese, Total	77.5		mg/kg	1.40	0.222	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Mercury, Total	0.156		mg/kg	0.117	0.076	1	10/05/22 23:05	10/06/22 18:42	EPA 7471B	1,7471B	ZK
Nickel, Total	150		mg/kg	3.49	0.338	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Potassium, Total	942		mg/kg	349	20.1	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Selenium, Total	1.37	J	mg/kg	2.79	0.360	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.40	0.395	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Sodium, Total	524		mg/kg	279	4.40	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.79	0.440	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Vanadium, Total	247		mg/kg	1.40	0.283	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW
Zinc, Total	22.4		mg/kg	6.98	0.409	2	10/05/22 22:15	10/09/22 18:16	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-11

Date Collected: 10/04/22 13:33

Client ID: CD10428SS11

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 77%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	9370		mg/kg	10.2	2.76	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	5.11	0.388	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Arsenic, Total	32.9		mg/kg	1.02	0.213	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Barium, Total	273		mg/kg	1.02	0.178	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Beryllium, Total	0.961		mg/kg	0.511	0.034	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Cadmium, Total	1.22		mg/kg	1.02	0.100	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Calcium, Total	6760		mg/kg	10.2	3.58	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Chromium, Total	12.5		mg/kg	1.02	0.098	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Cobalt, Total	6.52		mg/kg	2.04	0.170	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Copper, Total	12.7		mg/kg	1.02	0.264	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Iron, Total	75800		mg/kg	25.6	4.61	10	10/05/22 22:15	10/09/22 19:47	EPA 3050B	1,6010D	EW
Lead, Total	3.11	J	mg/kg	5.11	0.274	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Magnesium, Total	1270		mg/kg	10.2	1.57	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Manganese, Total	117		mg/kg	1.02	0.162	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Mercury, Total	0.056	J	mg/kg	0.081	0.053	1	10/05/22 23:05	10/06/22 18:46	EPA 7471B	1,7471B	ZK
Nickel, Total	15.7		mg/kg	2.56	0.247	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Potassium, Total	608		mg/kg	256	14.7	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Selenium, Total	0.685	J	mg/kg	2.04	0.264	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.02	0.289	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Sodium, Total	235		mg/kg	204	3.22	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.04	0.322	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Vanadium, Total	60.1		mg/kg	1.02	0.207	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW
Zinc, Total	13.0		mg/kg	5.11	0.299	2	10/05/22 22:15	10/09/22 18:31	EPA 3050B	1,6010D	EW



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-12  
 Client ID: CD10428SS12  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 13:40  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 74%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	9350		mg/kg	10.7	2.88	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	5.34	0.406	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Arsenic, Total	37.6		mg/kg	1.07	0.222	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Barium, Total	318		mg/kg	1.07	0.186	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Beryllium, Total	1.02		mg/kg	0.534	0.035	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Cadmium, Total	0.705	J	mg/kg	1.07	0.105	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Calcium, Total	5270		mg/kg	10.7	3.74	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Chromium, Total	11.3		mg/kg	1.07	0.103	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Cobalt, Total	5.55		mg/kg	2.14	0.177	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Copper, Total	12.7		mg/kg	1.07	0.276	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Iron, Total	31800		mg/kg	5.34	0.965	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Lead, Total	4.82	J	mg/kg	5.34	0.286	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Magnesium, Total	1140		mg/kg	10.7	1.65	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Manganese, Total	68.1		mg/kg	1.07	0.170	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Mercury, Total	0.139		mg/kg	0.095	0.062	1	10/05/22 23:05	10/06/22 18:56	EPA 7471B	1,7471B	ZK
Nickel, Total	12.2		mg/kg	2.67	0.259	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Potassium, Total	569		mg/kg	267	15.4	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Selenium, Total	0.321	J	mg/kg	2.14	0.276	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.07	0.302	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Sodium, Total	207	J	mg/kg	214	3.37	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Thallium, Total	0.524	J	mg/kg	2.14	0.337	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Vanadium, Total	48.2		mg/kg	1.07	0.217	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW
Zinc, Total	15.5		mg/kg	5.34	0.313	2	10/05/22 22:15	10/09/22 18:36	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-13

Date Collected: 10/04/22 13:47

Client ID: CD10428SS13

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 62%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	10800		mg/kg	12.5	3.38	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	6.26	0.476	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Arsenic, Total	63.0		mg/kg	1.25	0.261	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Barium, Total	467		mg/kg	1.25	0.218	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Beryllium, Total	1.54		mg/kg	0.626	0.041	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Cadmium, Total	0.739	J	mg/kg	1.25	0.123	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Calcium, Total	13200		mg/kg	12.5	4.38	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Chromium, Total	21.7		mg/kg	1.25	0.120	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Cobalt, Total	6.65		mg/kg	2.51	0.208	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Copper, Total	28.3		mg/kg	1.25	0.323	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Iron, Total	26000		mg/kg	6.26	1.13	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Lead, Total	9.92		mg/kg	6.26	0.336	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Magnesium, Total	1090		mg/kg	12.5	1.93	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Manganese, Total	89.3		mg/kg	1.25	0.199	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Mercury, Total	0.173		mg/kg	0.117	0.076	1	10/05/22 23:05	10/06/22 18:59	EPA 7471B	1,7471B	ZK
Nickel, Total	17.6		mg/kg	3.13	0.303	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Potassium, Total	863		mg/kg	313	18.0	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Selenium, Total	0.802	J	mg/kg	2.51	0.323	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.25	0.355	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Sodium, Total	327		mg/kg	251	3.95	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Thallium, Total	0.401	J	mg/kg	2.51	0.395	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Vanadium, Total	38.7		mg/kg	1.25	0.254	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW
Zinc, Total	32.4		mg/kg	6.26	0.367	2	10/05/22 22:15	10/09/22 18:42	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-14

Date Collected: 10/04/22 14:00

Client ID: CD10428SS14

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 67%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	8680		mg/kg	11.6	3.12	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	5.78	0.439	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Arsenic, Total	46.3		mg/kg	1.16	0.240	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Barium, Total	292		mg/kg	1.16	0.201	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Beryllium, Total	1.41		mg/kg	0.578	0.038	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Cadmium, Total	0.705	J	mg/kg	1.16	0.113	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Calcium, Total	4440		mg/kg	11.6	4.04	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Chromium, Total	17.9		mg/kg	1.16	0.111	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Cobalt, Total	9.45		mg/kg	2.31	0.192	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Copper, Total	16.7		mg/kg	1.16	0.298	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Iron, Total	30200		mg/kg	5.78	1.04	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Lead, Total	7.72		mg/kg	5.78	0.310	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Magnesium, Total	1480		mg/kg	11.6	1.78	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Manganese, Total	96.7		mg/kg	1.16	0.184	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Mercury, Total	0.148		mg/kg	0.101	0.066	1	10/05/22 23:05	10/06/22 19:02	EPA 7471B	1,7471B	ZK
Nickel, Total	352		mg/kg	2.89	0.280	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Potassium, Total	759		mg/kg	289	16.6	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	2.31	0.298	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.16	0.327	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Sodium, Total	221	J	mg/kg	231	3.64	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.31	0.364	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Vanadium, Total	1580		mg/kg	1.16	0.234	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW
Zinc, Total	20.2		mg/kg	5.78	0.338	2	10/05/22 22:15	10/09/22 18:47	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-15

Date Collected: 10/04/22 14:02

Client ID: CD10428SS15

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 70%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	9300		mg/kg	10.9	2.95	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	5.47	0.416	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Arsenic, Total	35.2		mg/kg	1.09	0.228	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Barium, Total	235		mg/kg	1.09	0.190	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Beryllium, Total	0.908		mg/kg	0.547	0.036	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Cadmium, Total	1.27		mg/kg	1.09	0.107	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Calcium, Total	13600		mg/kg	10.9	3.83	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Chromium, Total	13.2		mg/kg	1.09	0.105	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Cobalt, Total	6.87		mg/kg	2.19	0.182	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Copper, Total	13.0		mg/kg	1.09	0.282	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Iron, Total	73200		mg/kg	27.4	4.94	10	10/05/22 22:15	10/09/22 19:52	EPA 3050B	1,6010D	EW
Lead, Total	2.91	J	mg/kg	5.47	0.293	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Magnesium, Total	1260		mg/kg	10.9	1.68	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Manganese, Total	126		mg/kg	1.09	0.174	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Mercury, Total	0.082	J	mg/kg	0.101	0.066	1	10/05/22 23:05	10/06/22 19:06	EPA 7471B	1,7471B	ZK
Nickel, Total	19.1		mg/kg	2.74	0.265	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Potassium, Total	647		mg/kg	274	15.8	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Selenium, Total	1.74	J	mg/kg	2.19	0.282	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.09	0.310	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Sodium, Total	217	J	mg/kg	219	3.45	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.19	0.345	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Vanadium, Total	401		mg/kg	1.09	0.222	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW
Zinc, Total	13.3		mg/kg	5.47	0.321	2	10/05/22 22:15	10/09/22 18:52	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-16

Date Collected: 10/04/22 14:04

Client ID: CD10428SS16

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 77%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	5650		mg/kg	9.81	2.65	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	4.90	0.373	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Arsenic, Total	34.9		mg/kg	0.981	0.204	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Barium, Total	328		mg/kg	0.981	0.171	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Beryllium, Total	1.05		mg/kg	0.490	0.032	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Cadmium, Total	0.746	J	mg/kg	0.981	0.096	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Calcium, Total	4260		mg/kg	9.81	3.43	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Chromium, Total	13.7		mg/kg	0.981	0.094	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Cobalt, Total	4.84		mg/kg	1.96	0.163	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Copper, Total	11.7		mg/kg	0.981	0.253	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Iron, Total	34200		mg/kg	4.90	0.886	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Lead, Total	4.04	J	mg/kg	4.90	0.263	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Magnesium, Total	582		mg/kg	9.81	1.51	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Manganese, Total	61.3		mg/kg	0.981	0.156	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Mercury, Total	0.089	J	mg/kg	0.091	0.059	1	10/05/22 23:05	10/06/22 19:09	EPA 7471B	1,7471B	ZK
Nickel, Total	12.0		mg/kg	2.45	0.237	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Potassium, Total	481		mg/kg	245	14.1	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Selenium, Total	1.05	J	mg/kg	1.96	0.253	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.981	0.278	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Sodium, Total	110	J	mg/kg	196	3.09	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.96	0.309	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Vanadium, Total	174		mg/kg	0.981	0.199	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW
Zinc, Total	20.9		mg/kg	4.90	0.287	2	10/05/22 22:15	10/09/22 18:57	EPA 3050B	1,6010D	EW





Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-17

Date Collected: 10/04/22 15:00

Client ID: CD10428SS17

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 67%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	9210		mg/kg	11.6	3.13	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	5.80	0.441	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Arsenic, Total	56.4		mg/kg	1.16	0.241	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Barium, Total	272		mg/kg	1.16	0.202	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Beryllium, Total	1.38		mg/kg	0.580	0.038	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Cadmium, Total	0.557	J	mg/kg	1.16	0.114	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Calcium, Total	4900		mg/kg	11.6	4.06	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Chromium, Total	15.4		mg/kg	1.16	0.111	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Cobalt, Total	5.68		mg/kg	2.32	0.193	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Copper, Total	14.8		mg/kg	1.16	0.299	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Iron, Total	20700		mg/kg	5.80	1.05	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Lead, Total	8.11		mg/kg	5.80	0.311	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Magnesium, Total	1260		mg/kg	11.6	1.79	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Manganese, Total	91.7		mg/kg	1.16	0.184	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Mercury, Total	0.178		mg/kg	0.103	0.067	1	10/05/22 23:05	10/06/22 19:12	EPA 7471B	1,7471B	ZK
Nickel, Total	21.2		mg/kg	2.90	0.281	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Potassium, Total	902		mg/kg	290	16.7	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	2.32	0.299	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.16	0.328	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Sodium, Total	216	J	mg/kg	232	3.66	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.32	0.366	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Vanadium, Total	87.4		mg/kg	1.16	0.236	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW
Zinc, Total	23.7		mg/kg	5.80	0.340	2	10/05/22 22:15	10/09/22 19:02	EPA 3050B	1,6010D	EW





**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

Lab ID: L2254892-18  
 Client ID: CD10428SS18  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/04/22 15:02  
 Date Received: 10/04/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	9900		mg/kg	10.9	2.95	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	5.46	0.415	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Arsenic, Total	34.3		mg/kg	1.09	0.227	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Barium, Total	334		mg/kg	1.09	0.190	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Beryllium, Total	0.884		mg/kg	0.546	0.036	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Cadmium, Total	1.04	J	mg/kg	1.09	0.107	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Calcium, Total	5570		mg/kg	10.9	3.82	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Chromium, Total	13.9		mg/kg	1.09	0.105	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Cobalt, Total	8.35		mg/kg	2.18	0.181	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Copper, Total	16.9		mg/kg	1.09	0.282	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Iron, Total	47700		mg/kg	5.46	0.986	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Lead, Total	6.31		mg/kg	5.46	0.293	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Magnesium, Total	2190		mg/kg	10.9	1.68	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Manganese, Total	552		mg/kg	1.09	0.174	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.095	0.062	1	10/05/22 23:05	10/06/22 19:15	EPA 7471B	1,7471B	ZK
Nickel, Total	20.6		mg/kg	2.73	0.264	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Potassium, Total	704		mg/kg	273	15.7	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Selenium, Total	0.841	J	mg/kg	2.18	0.282	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.09	0.309	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Sodium, Total	187	J	mg/kg	218	3.44	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Thallium, Total	0.535	J	mg/kg	2.18	0.344	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Vanadium, Total	46.4		mg/kg	1.09	0.222	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW
Zinc, Total	26.4		mg/kg	5.46	0.320	2	10/05/22 22:15	10/09/22 19:07	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-19

Date Collected: 10/04/22 15:03

Client ID: CD10428SS19

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 64%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	8400		mg/kg	12.1	3.26	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	6.04	0.459	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Arsenic, Total	42.3		mg/kg	1.21	0.251	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Barium, Total	330		mg/kg	1.21	0.210	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Beryllium, Total	1.42		mg/kg	0.604	0.040	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Cadmium, Total	0.580	J	mg/kg	1.21	0.118	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Calcium, Total	7340		mg/kg	12.1	4.23	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Chromium, Total	14.7		mg/kg	1.21	0.116	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Cobalt, Total	5.68		mg/kg	2.41	0.200	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Copper, Total	13.8		mg/kg	1.21	0.312	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Iron, Total	22000		mg/kg	6.04	1.09	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Lead, Total	7.09		mg/kg	6.04	0.324	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Magnesium, Total	855		mg/kg	12.1	1.86	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Manganese, Total	44.2		mg/kg	1.21	0.192	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Mercury, Total	0.176		mg/kg	0.098	0.064	1	10/05/22 23:05	10/06/22 19:19	EPA 7471B	1,7471B	ZK
Nickel, Total	12.2		mg/kg	3.02	0.292	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Potassium, Total	666		mg/kg	302	17.4	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Selenium, Total	0.712	J	mg/kg	2.41	0.312	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	1.21	0.342	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Sodium, Total	211	J	mg/kg	241	3.80	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	2.41	0.380	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Vanadium, Total	33.4		mg/kg	1.21	0.245	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW
Zinc, Total	22.4		mg/kg	6.04	0.354	2	10/05/22 22:15	10/09/22 19:12	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-20

Date Collected: 10/04/22 15:26

Client ID: CD10428SS20

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	9810		mg/kg	8.67	2.34	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	4.33	0.329	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Arsenic, Total	9.83		mg/kg	0.867	0.180	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Barium, Total	111		mg/kg	0.867	0.151	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Beryllium, Total	0.650		mg/kg	0.433	0.029	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Cadmium, Total	0.624	J	mg/kg	0.867	0.085	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Calcium, Total	12200		mg/kg	8.67	3.03	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Chromium, Total	10.8		mg/kg	0.867	0.083	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Cobalt, Total	7.62		mg/kg	1.73	0.144	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Copper, Total	16.5		mg/kg	0.867	0.224	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Iron, Total	28400		mg/kg	4.33	0.783	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Lead, Total	14.7		mg/kg	4.33	0.232	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Magnesium, Total	3880		mg/kg	8.67	1.33	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Manganese, Total	290		mg/kg	0.867	0.138	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Mercury, Total	0.051	J	mg/kg	0.074	0.048	1	10/05/22 23:05	10/06/22 19:22	EPA 7471B	1,7471B	ZK
Nickel, Total	18.5		mg/kg	2.17	0.210	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Potassium, Total	909		mg/kg	217	12.5	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Selenium, Total	0.442	J	mg/kg	1.73	0.224	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.867	0.245	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Sodium, Total	195		mg/kg	173	2.73	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.73	0.273	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Vanadium, Total	38.9		mg/kg	0.867	0.176	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW
Zinc, Total	35.3		mg/kg	4.33	0.254	2	10/05/22 22:15	10/09/22 19:17	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-21

Date Collected: 10/04/22 15:31

Client ID: CD10428SS21

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	8250		mg/kg	22.2	6.01	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	11.1	0.845	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Arsenic, Total	5.67		mg/kg	2.22	0.463	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Barium, Total	71.4		mg/kg	2.22	0.387	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Beryllium, Total	0.467	J	mg/kg	1.11	0.073	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Cadmium, Total	0.467	J	mg/kg	2.22	0.218	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Calcium, Total	13000		mg/kg	22.2	7.79	5	10/06/22 09:00	10/11/22 13:00	EPA 3050B	1,6010D	EGW
Chromium, Total	13.8		mg/kg	2.22	0.214	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Cobalt, Total	8.05		mg/kg	4.45	0.369	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Copper, Total	14.8		mg/kg	2.22	0.574	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Iron, Total	24200		mg/kg	11.1	2.01	5	10/06/22 09:00	10/11/22 13:00	EPA 3050B	1,6010D	EGW
Lead, Total	9.39	J	mg/kg	11.1	0.596	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Magnesium, Total	5820		mg/kg	22.2	3.43	5	10/06/22 09:00	10/11/22 13:00	EPA 3050B	1,6010D	EGW
Manganese, Total	327		mg/kg	2.22	0.354	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.075	0.049	1	10/06/22 07:30	10/06/22 11:25	EPA 7471B	1,7471B	ZK
Nickel, Total	17.0		mg/kg	5.56	0.538	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Potassium, Total	806		mg/kg	556	32.0	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	4.45	0.574	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	2.22	0.630	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Sodium, Total	109	J	mg/kg	445	7.01	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	4.45	0.701	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Vanadium, Total	16.0		mg/kg	2.22	0.452	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW
Zinc, Total	46.3		mg/kg	11.1	0.652	5	10/06/22 09:00	10/11/22 09:30	EPA 3050B	1,6010D	EW



Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

## SAMPLE RESULTS

Lab ID: L2254892-22

Date Collected: 10/04/22 15:35

Client ID: CD10428SS22

Date Received: 10/04/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	7980		mg/kg	22.6	6.09	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	11.3	0.857	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Arsenic, Total	4.96		mg/kg	2.26	0.469	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Barium, Total	72.2		mg/kg	2.26	0.392	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Beryllium, Total	0.474	J	mg/kg	1.13	0.074	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Cadmium, Total	0.451	J	mg/kg	2.26	0.221	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Calcium, Total	12900		mg/kg	22.6	7.90	5	10/06/22 09:00	10/11/22 13:03	EPA 3050B	1,6010D	EGW
Chromium, Total	11.8		mg/kg	2.26	0.216	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Cobalt, Total	7.29		mg/kg	4.51	0.374	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Copper, Total	16.4		mg/kg	2.26	0.582	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Iron, Total	22700		mg/kg	11.3	2.04	5	10/06/22 09:00	10/11/22 13:03	EPA 3050B	1,6010D	EGW
Lead, Total	12.8		mg/kg	11.3	0.604	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Magnesium, Total	5120		mg/kg	22.6	3.47	5	10/06/22 09:00	10/11/22 13:03	EPA 3050B	1,6010D	EGW
Manganese, Total	254		mg/kg	2.26	0.359	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.076	0.050	1	10/06/22 07:30	10/06/22 11:28	EPA 7471B	1,7471B	ZK
Nickel, Total	17.2		mg/kg	5.64	0.546	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Potassium, Total	679		mg/kg	564	32.5	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	4.51	0.582	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	2.26	0.638	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Sodium, Total	97.3	J	mg/kg	451	7.10	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	4.51	0.710	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Vanadium, Total	17.0		mg/kg	2.26	0.458	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW
Zinc, Total	46.8		mg/kg	11.3	0.661	5	10/06/22 09:00	10/11/22 09:35	EPA 3050B	1,6010D	EW



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-20 Batch: WG1695953-1									
Aluminum, Total	ND	mg/kg	4.00	1.08	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Antimony, Total	ND	mg/kg	2.00	0.152	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Arsenic, Total	ND	mg/kg	0.400	0.083	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Barium, Total	ND	mg/kg	0.400	0.070	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Beryllium, Total	ND	mg/kg	0.200	0.013	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Cadmium, Total	ND	mg/kg	0.400	0.039	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Calcium, Total	ND	mg/kg	4.00	1.40	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Chromium, Total	ND	mg/kg	0.400	0.038	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Cobalt, Total	ND	mg/kg	0.800	0.066	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Copper, Total	ND	mg/kg	0.400	0.103	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Iron, Total	ND	mg/kg	2.00	0.361	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Lead, Total	ND	mg/kg	2.00	0.107	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Magnesium, Total	ND	mg/kg	4.00	0.616	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Manganese, Total	ND	mg/kg	0.400	0.064	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Nickel, Total	ND	mg/kg	1.00	0.097	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Potassium, Total	ND	mg/kg	100	5.76	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Selenium, Total	ND	mg/kg	0.800	0.103	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Silver, Total	ND	mg/kg	0.400	0.113	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Sodium, Total	ND	mg/kg	80.0	1.26	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Thallium, Total	ND	mg/kg	0.800	0.126	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Vanadium, Total	ND	mg/kg	0.400	0.081	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW
Zinc, Total	ND	mg/kg	2.00	0.117	1	10/05/22 22:15	10/09/22 16:31	1,6010D	EW

### Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-20 Batch: WG1695954-1									
Mercury, Total	ND	mg/kg	0.083	0.054	1	10/05/22 23:05	10/06/22 17:50	1,7471B	ZK



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 21-22 Batch: WG1696057-1									
Mercury, Total	ND	mg/kg	0.083	0.054	1	10/06/22 07:30	10/06/22 10:17	1,7471B	ZK

### Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
Total Metals - Mansfield Lab for sample(s): 21-22 Batch: WG1696126-1										
Aluminum, Total	ND	mg/kg	4.00	1.08	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Antimony, Total	ND	mg/kg	2.00	0.152	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Arsenic, Total	ND	mg/kg	0.400	0.083	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Barium, Total	ND	mg/kg	0.400	0.070	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Beryllium, Total	ND	mg/kg	0.200	0.013	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Cadmium, Total	ND	mg/kg	0.400	0.039	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Calcium, Total	ND	mg/kg	4.00	1.40	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Chromium, Total	ND	mg/kg	0.400	0.038	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Cobalt, Total	ND	mg/kg	0.800	0.066	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Copper, Total	ND	mg/kg	0.400	0.103	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Iron, Total	ND	mg/kg	2.00	0.361	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Lead, Total	ND	mg/kg	2.00	0.107	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Magnesium, Total	ND	mg/kg	4.00	0.616	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Manganese, Total	ND	mg/kg	0.400	0.064	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Nickel, Total	ND	mg/kg	1.00	0.097	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Potassium, Total	ND	mg/kg	100	5.76	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Selenium, Total	ND	mg/kg	0.800	0.103	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Silver, Total	ND	mg/kg	0.400	0.113	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	
Sodium, Total	19.5	J	mg/kg	80.0	1.26	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB
Thallium, Total	ND	mg/kg	0.800	0.126	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB	



**Project Name:** BEACON ISLAND SITE**Lab Number:** L2254892**Project Number:** CD10428**Report Date:** 10/11/22

### Method Blank Analysis Batch Quality Control

Vanadium, Total	ND	mg/kg	0.400	0.081	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB
Zinc, Total	ND	mg/kg	2.00	0.117	1	10/06/22 09:00	10/06/22 13:42	1,6010D	NB

#### Prep Information

Digestion Method: EPA 3050B



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Lab Number:** L2254892

**Project Number:** CD10428

**Report Date:** 10/11/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 01-20 Batch: WG1695953-2 SRM Lot Number: D113-540								
Aluminum, Total	69		-		51-149	-		
Antimony, Total	118		-		20-250	-		
Arsenic, Total	89		-		70-130	-		
Barium, Total	85		-		75-125	-		
Beryllium, Total	99		-		75-125	-		
Cadmium, Total	85		-		75-125	-		
Calcium, Total	89		-		73-128	-		
Chromium, Total	84		-		70-130	-		
Cobalt, Total	88		-		75-125	-		
Copper, Total	82		-		75-125	-		
Iron, Total	87		-		36-164	-		
Lead, Total	85		-		72-128	-		
Magnesium, Total	80		-		63-138	-		
Manganese, Total	85		-		77-123	-		
Nickel, Total	87		-		70-130	-		
Potassium, Total	77		-		59-141	-		
Selenium, Total	89		-		66-134	-		
Silver, Total	87		-		70-131	-		
Sodium, Total	94		-		35-164	-		
Thallium, Total	88		-		70-130	-		
Vanadium, Total	86		-		74-126	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Project Number:** CD10428

**Lab Number:** L2254892

**Report Date:** 10/11/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-20 Batch: WG1695953-2 SRM Lot Number: D113-540					
Zinc, Total	84	-	70-130	-	
Total Metals - Mansfield Lab Associated sample(s): 01-20 Batch: WG1695954-2 SRM Lot Number: D113-540					
Mercury, Total	92	-	60-140	-	
Total Metals - Mansfield Lab Associated sample(s): 21-22 Batch: WG1696057-2 SRM Lot Number: D113-540					
Mercury, Total	82	-	60-140	-	

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2254892

Project Number: CD10428

Report Date: 10/11/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 21-22 Batch: WG1696126-2 SRM Lot Number: D113-540					
Aluminum, Total	70	-	51-149	-	
Antimony, Total	160	-	20-250	-	
Arsenic, Total	91	-	70-130	-	
Barium, Total	84	-	75-125	-	
Beryllium, Total	88	-	75-125	-	
Cadmium, Total	86	-	75-125	-	
Calcium, Total	89	-	73-128	-	
Chromium, Total	85	-	70-130	-	
Cobalt, Total	88	-	75-125	-	
Copper, Total	87	-	75-125	-	
Iron, Total	85	-	36-164	-	
Lead, Total	86	-	72-128	-	
Magnesium, Total	76	-	63-138	-	
Manganese, Total	88	-	77-123	-	
Nickel, Total	90	-	70-130	-	
Potassium, Total	79	-	59-141	-	
Selenium, Total	91	-	66-134	-	
Silver, Total	89	-	70-131	-	
Sodium, Total	97	-	35-164	-	
Thallium, Total	87	-	70-130	-	
Vanadium, Total	88	-	74-126	-	

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Lab Number:** L2254892

**Project Number:** CD10428

**Report Date:** 10/11/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 21-22 Batch: WG1696126-2 SRM Lot Number: D113-540					
Zinc, Total	88	-	70-130	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-20			QC Batch ID: WG1695953-3			QC Sample: L2254892-01			Client ID: CD10428SS01			
Aluminum, Total	10300	250	11800	601	Q	-	-		75-125	-		20
Antimony, Total	ND	62.4	35.8	57	Q	-	-		75-125	-		20
Arsenic, Total	37.6	15	47.2	64	Q	-	-		75-125	-		20
Barium, Total	271	250	480	84		-	-		75-125	-		20
Beryllium, Total	1.65	6.24	6.63	80		-	-		75-125	-		20
Cadmium, Total	0.483J	6.61	5.35	81		-	-		75-125	-		20
Calcium, Total	4420	1250	5430	81		-	-		75-125	-		20
Chromium, Total	16.9	25	36.1	77		-	-		75-125	-		20
Cobalt, Total	6.82	62.4	48.3	66	Q	-	-		75-125	-		20
Copper, Total	16.4	31.2	40.4	77		-	-		75-125	-		20
Iron, Total	16500	125	17300	641	Q	-	-		75-125	-		20
Lead, Total	9.00	66.1	56.6	72	Q	-	-		75-125	-		20
Magnesium, Total	1340	1250	2190	68	Q	-	-		75-125	-		20
Manganese, Total	88.5	62.4	133	71	Q	-	-		75-125	-		20
Nickel, Total	157	62.4	203	74	Q	-	-		75-125	-		20
Potassium, Total	785	1250	2090	104		-	-		75-125	-		20
Selenium, Total	ND	15	9.70	65	Q	-	-		75-125	-		20
Silver, Total	ND	37.4	27.6	74	Q	-	-		75-125	-		20
Sodium, Total	328	1250	1340	81		-	-		75-125	-		20
Thallium, Total	ND	15	7.74	52	Q	-	-		75-125	-		20
Vanadium, Total	1110	62.4	1110	0	Q	-	-		75-125	-		20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG1695953-3 QC Sample: L2254892-01 Client ID: CD10428SS01									
Zinc, Total	22.6	62.4	68.9	74	Q	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG1695954-3 QC Sample: L2254892-01 Client ID: CD10428SS01									
Mercury, Total	0.205	2.16	2.48	105	-	-	80-120	-	20
Total Metals - Mansfield Lab Associated sample(s): 21-22 QC Batch ID: WG1696057-3 WG1696057-4 QC Sample: L2254728-01 Client ID: MS Sample									
Mercury, Total	ND	1.67	1.66	99	1.60	96	80-120	4	20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 21-22    QC Batch ID: WG1696126-3    QC Sample: L2255245-01    Client ID: MS Sample									
Aluminum, Total	5130	170	4540	0	Q	-	75-125	-	20
Antimony, Total	ND	42.6	40.4	95		-	75-125	-	20
Arsenic, Total	4.51	10.2	13.7	90		-	75-125	-	20
Barium, Total	16.7	170	170	90		-	75-125	-	20
Beryllium, Total	0.246	4.26	4.24	94		-	75-125	-	20
Cadmium, Total	0.066J	4.52	4.59	102		-	75-125	-	20
Calcium, Total	118	853	931	95		-	75-125	-	20
Chromium, Total	10.0	17	22.8	75		-	75-125	-	20
Cobalt, Total	2.44	42.6	40.5	89		-	75-125	-	20
Copper, Total	4.65	21.3	24.2	92		-	75-125	-	20
Iron, Total	9920	85.3	7660	0	Q	-	75-125	-	20
Lead, Total	16.6	45.2	56.0	87		-	75-125	-	20
Magnesium, Total	334	853	1060	85		-	75-125	-	20
Manganese, Total	65.2	42.6	93.8	67	Q	-	75-125	-	20
Nickel, Total	3.50	42.6	42.5	91		-	75-125	-	20
Potassium, Total	208	853	998	93		-	75-125	-	20
Selenium, Total	0.247J	10.2	10.2	100		-	75-125	-	20
Silver, Total	ND	25.6	24.8	97		-	75-125	-	20
Sodium, Total	17.2J	853	820	96		-	75-125	-	20
Thallium, Total	ND	10.2	9.56	93		-	75-125	-	20
Vanadium, Total	14.9	42.6	52.3	88		-	75-125	-	20

**Matrix Spike Analysis**  
Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Limits</b>
Total Metals - Mansfield Lab Associated sample(s): 21-22    QC Batch ID: WG1696126-3    QC Sample: L2255245-01    Client ID: MS Sample									
Zinc, Total	11.6	42.6	49.5	89	-	-	75-125	-	20



## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2254892

Report Date: 10/11/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG1695953-4 QC Sample: L2254892-01 Client ID: CD10428SS01						
Aluminum, Total	10300	10500	mg/kg	2		20
Antimony, Total	ND	ND	mg/kg	NC		20
Arsenic, Total	37.6	39.6	mg/kg	5		20
Barium, Total	271	281	mg/kg	4		20
Beryllium, Total	1.65	1.64	mg/kg	1		20
Cadmium, Total	0.483J	0.519J	mg/kg	NC		20
Calcium, Total	4420	4320	mg/kg	2		20
Chromium, Total	16.9	18.8	mg/kg	11		20
Cobalt, Total	6.82	7.19	mg/kg	5		20
Copper, Total	16.4	17.1	mg/kg	4		20
Iron, Total	16500	17500	mg/kg	6		20
Lead, Total	9.00	9.20	mg/kg	2		20
Magnesium, Total	1340	1380	mg/kg	3		20
Manganese, Total	88.5	94.2	mg/kg	6		20
Nickel, Total	157	182	mg/kg	15		20
Potassium, Total	785	846	mg/kg	7		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Sodium, Total	328	310	mg/kg	6		20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2254892

Report Date: 10/11/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
<b>Total Metals - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG1695953-4 QC Sample: L2254892-01 Client ID: CD10428SS01</b>					
Thallium, Total	ND	ND	mg/kg	NC	20
Vanadium, Total	1110	1220	mg/kg	9	20
Zinc, Total	22.6	24.6	mg/kg	8	20
<b>Total Metals - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG1695954-4 QC Sample: L2254892-01 Client ID: CD10428SS01</b>					
Mercury, Total	0.205	0.221	mg/kg	8	20
<b>Total Metals - Mansfield Lab Associated sample(s): 21-22 QC Batch ID: WG1696126-4 QC Sample: L2255245-01 Client ID: DUP Sample</b>					
Lead, Total	16.6	20.3	mg/kg	20	20

Project Name: BEACON ISLAND SITE

Project Number: CD10428

**Lab Serial Dilution  
Analysis  
Batch Quality Control**

Lab Number: L2254892

Report Date: 10/11/22

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG1695953-6 QC Sample: L2254892-01 Client ID: CD10428SS01						
Arsenic, Total	37.6	88.1	mg/kg	134	Q	20
Magnesium, Total	1340	3240	mg/kg	142	Q	20
Manganese, Total	88.5	211	mg/kg	138	Q	20
Nickel, Total	157	380	mg/kg	142	Q	20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-01  
**Client ID:** CD10428SS01  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:30  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	62.8		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-02  
**Client ID:** CD10428SS02  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:37  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	55.5		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-03  
**Client ID:** CD10428SS03  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:40  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	55.0		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-04  
**Client ID:** CD10428SS04  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 11:45  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	47.5		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI





**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-05  
**Client ID:** CD10428SS05  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:16  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	80.9		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-06  
**Client ID:** CD10428SS06  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:25  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	75.2		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-07  
**Client ID:** CD10428SS07  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:35  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	69.1		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-08  
**Client ID:** CD10428SS08  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 12:57  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	63.2		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-09  
**Client ID:** CD10428SS09  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:05  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	65.7		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-10  
**Client ID:** CD10428SS10  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:14  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	56.7		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-11  
**Client ID:** CD10428SS11  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:33  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	77.4		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-12  
**Client ID:** CD10428SS12  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:40  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	73.9		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI





**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-13  
**Client ID:** CD10428SS13  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 13:47  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	62.2		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-14  
**Client ID:** CD10428SS14  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 14:00  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	66.8		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-15  
**Client ID:** CD10428SS15  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 14:02  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	70.4		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-16  
**Client ID:** CD10428SS16  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 14:04  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	77.1		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-17  
**Client ID:** CD10428SS17  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:00  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	67.1		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-18  
**Client ID:** CD10428SS18  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:02  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	72.4		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-19  
**Client ID:** CD10428SS19  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:03  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	64.2		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-20  
**Client ID:** CD10428SS20  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:26  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	88.0		%	0.100	NA	1	-	10/06/22 08:09	121,2540G	RI





**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-21  
**Client ID:** CD10428SS21  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:31  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	86.3		%	0.100	NA	1	-	10/06/22 11:01	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-22  
**Client ID:** CD10428SS22  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:35  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	84.6		%	0.100	NA	1	-	10/06/22 11:01	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-23  
**Client ID:** CD10428SS23  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:44  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	83.4		%	0.100	NA	1	-	10/06/22 11:27	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-24  
**Client ID:** CD10428SS24  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 15:55  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	87.2		%	0.100	NA	1	-	10/06/22 11:27	121,2540G	RI



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

**SAMPLE RESULTS**

**Lab ID:** L2254892-25  
**Client ID:** CD10428SS25  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/04/22 16:02  
**Date Received:** 10/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	81.3		%	0.100	NA	1	-	10/06/22 11:27	121,2540G	RI



## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2254892

Report Date: 10/11/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-20 QC Batch ID: WG1696114-1 QC Sample: L2254892-01 Client ID: CD10428SS01						
Solids, Total	62.8	62.2	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 21-22 QC Batch ID: WG1696196-1 QC Sample: L2255184-01 Client ID: DUP Sample						
Solids, Total	81.6	81.3	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 23-25 QC Batch ID: WG1696225-1 QC Sample: L2255017-02 Client ID: DUP Sample						
Solids, Total	82.6	78.6	%	5		20

**Project Name:** BEACON ISLAND SITE**Lab Number:** L2254892**Project Number:** CD10428**Report Date:** 10/11/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

Cooler	Custody Seal
A	Absent
B	Absent

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2254892-01A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-01B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),SB-TI(180),SE-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MG-TI(180),HG-T(28),MN-TI(180),CA-TI(180),NA-TI(180),K-TI(180),CD-TI(180)
L2254892-01C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-02A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-02B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),NI-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),CU-TI(180),SE-TI(180),CO-TI(180),V-TI(180),MN-TI(180),FE-TI(180),HG-T(28),MG-TI(180),CD-TI(180),K-TI(180),NA-TI(180),CA-TI(180)
L2254892-02C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-03A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-03B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),CR-TI(180),SB-TI(180),PB-TI(180),CU-TI(180),ZN-TI(180),SE-TI(180),CO-TI(180),V-TI(180),MG-TI(180),HG-T(28),MN-TI(180),FE-TI(180),K-TI(180),CA-TI(180),NA-TI(180),CD-TI(180)
L2254892-03C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-04A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-04B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),NI-TI(180),SB-TI(180),ZN-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),CO-TI(180),V-TI(180),MG-TI(180),FE-TI(180),MN-TI(180),HG-T(28),CD-TI(180),CA-TI(180),K-TI(180),NA-TI(180)

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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2254892-04C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-05A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-05B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),PB-TI(180),ZN-TI(180),SE-TI(180),SB-TI(180),CU-TI(180),CO-TI(180),V-TI(180),MG-TI(180),FE-TI(180),MN-TI(180),HG-T(28),CA-TI(180),K-TI(180),CD-TI(180),NA-TI(180)
L2254892-05C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-06A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-06B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),CU-TI(180),SE-TI(180),V-TI(180),CO-TI(180),HG-T(28),FE-TI(180),MG-TI(180),MN-TI(180),NA-TI(180),CA-TI(180),K-TI(180),CD-TI(180)
L2254892-06C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-07A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-07B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),SB-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),CU-TI(180),CO-TI(180),V-TI(180),HG-T(28),MN-TI(180),FE-TI(180),MG-TI(180),K-TI(180),CA-TI(180),CD-TI(180),NA-TI(180)
L2254892-07C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-08A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-08B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),AL-TI(180),TL-TI(180),CR-TI(180),SB-TI(180),PB-TI(180),ZN-TI(180),CU-TI(180),SE-TI(180),CO-TI(180),V-TI(180),HG-T(28),MG-TI(180),FE-TI(180),MN-TI(180),CD-TI(180),CA-TI(180),NA-TI(180),K-TI(180)
L2254892-08C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-09A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)

\*Values in parentheses indicate holding time in days





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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2254892-09B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),TL-TI(180),AL-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),SB-TI(180),CU-TI(180),V-TI(180),CO-TI(180),MN-TI(180),MG-TI(180),HG-T(28),FE-TI(180),CA-TI(180),NA-TI(180),CD-TI(180),K-TI(180)
L2254892-09C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-10A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-10B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),AL-TI(180),CR-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),SB-TI(180),SE-TI(180),V-TI(180),CO-TI(180),HG-T(28),MG-TI(180),FE-TI(180),MN-TI(180),K-TI(180),CD-TI(180),CA-TI(180),NA-TI(180)
L2254892-10C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-11A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-11B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),CR-TI(180),ZN-TI(180),CU-TI(180),SB-TI(180),PB-TI(180),SE-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MN-TI(180),MG-TI(180),HG-T(28),K-TI(180),CD-TI(180),CA-TI(180),NA-TI(180)
L2254892-11C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-12A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-12B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),SE-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),SB-TI(180),CO-TI(180),V-TI(180),MG-TI(180),FE-TI(180),HG-T(28),MN-TI(180),NA-TI(180),K-TI(180),CD-TI(180),CA-TI(180)
L2254892-12C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-13A	Plastic 2oz unpreserved for TS	A	NA		2.6	Y	Absent		TS(7)
L2254892-13B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),SE-TI(180),ZN-TI(180),SB-TI(180),PB-TI(180),CU-TI(180),V-TI(180),CO-TI(180),MN-TI(180),FE-TI(180),HG-T(28),MG-TI(180),CA-TI(180),K-TI(180),CD-TI(180),NA-TI(180)
L2254892-13C	Glass 250ml/8oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)

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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2254892-14A	Plastic 2oz unpreserved for TS	A	NA		2.6	Y	Absent		TS(7)
L2254892-14B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.6	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),SE-TI(180),PB-TI(180),ZN-TI(180),SB-TI(180),CO-TI(180),V-TI(180),MG-TI(180),FE-TI(180),HG-T(28),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L2254892-14C	Glass 250ml/8oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-15A	Plastic 2oz unpreserved for TS	A	NA		2.6	Y	Absent		TS(7)
L2254892-15B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.6	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),SE-TI(180),CU-TI(180),V-TI(180),CO-TI(180),HG-T(28),MG-TI(180),FE-TI(180),MN-TI(180),CD-TI(180),K-TI(180),NA-TI(180),CA-TI(180)
L2254892-15C	Glass 250ml/8oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-16A	Plastic 2oz unpreserved for TS	A	NA		2.6	Y	Absent		TS(7)
L2254892-16B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),TL-TI(180),NI-TI(180),SB-TI(180),PB-TI(180),CU-TI(180),SE-TI(180),ZN-TI(180),V-TI(180),CO-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),NA-TI(180),CD-TI(180),K-TI(180)
L2254892-16C	Glass 250ml/8oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-17A	Plastic 2oz unpreserved for TS	A	NA		2.6	Y	Absent		TS(7)
L2254892-17B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),AL-TI(180),TL-TI(180),CR-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),CU-TI(180),SB-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MG-TI(180),HG-T(28),MN-TI(180),CA-TI(180),K-TI(180),CD-TI(180),NA-TI(180)
L2254892-17C	Glass 250ml/8oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-18A	Plastic 2oz unpreserved for TS	A	NA		2.6	Y	Absent		TS(7)
L2254892-18B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.6	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),AL-TI(180),SB-TI(180),PB-TI(180),SE-TI(180),CU-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),HG-T(28),MG-TI(180),MN-TI(180),FE-TI(180),K-TI(180),CA-TI(180),CD-TI(180),NA-TI(180)

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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2254892-18C	Glass 250ml/8oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-19A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-19B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),ZN-TI(180),SE-TI(180),PB-TI(180),CU-TI(180),SB-TI(180),V-TI(180),CO-TI(180),FE-TI(180),MN-TI(180),HG-T(28),MG-TI(180),K-TI(180),NA-TI(180),CD-TI(180),CA-TI(180)
L2254892-19C	Glass 250ml/8oz unpreserved	B	NA		2.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-20A	Plastic 2oz unpreserved for TS	B	NA		2.5	Y	Absent		TS(7)
L2254892-20B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),NI-TI(180),CU-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),SB-TI(180),V-TI(180),CO-TI(180),MG-TI(180),MN-TI(180),FE-TI(180),HG-T(28),CA-TI(180),NA-TI(180),CD-TI(180),K-TI(180)
L2254892-20C	Vial Large Septa unpreserved (4oz)	B	NA		2.5	Y	Absent		NYTCL-8260(14),NYTCL-8082-PPM(365)
L2254892-20D	Glass 250ml/8oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14)
L2254892-20X	Vial MeOH preserved split	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2254892-20Y	Vial Water preserved split	A	NA		2.6	Y	Absent	<b>07-OCT-22 12:02</b>	NYTCL-8260(14)
L2254892-20Z	Vial Water preserved split	A	NA		2.6	Y	Absent	<b>07-OCT-22 12:02</b>	NYTCL-8260(14)
L2254892-21A	Plastic 2oz unpreserved for TS	A	NA		2.6	Y	Absent		TS(7)
L2254892-21B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.6	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),SE-TI(180),SB-TI(180),V-TI(180),CO-TI(180),FE-TI(180),MG-TI(180),HG-T(28),MN-TI(180),NA-TI(180),CA-TI(180),CD-TI(180),K-TI(180)
L2254892-21C	Vial Large Septa unpreserved (4oz)	A	NA		2.6	Y	Absent		NYTCL-8260(14),NYTCL-8082-PPM(365)
L2254892-21D	Glass 250ml/8oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14)
L2254892-21X	Vial MeOH preserved split	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2254892-21Y	Vial Water preserved split	A	NA		2.6	Y	Absent	<b>07-OCT-22 12:02</b>	NYTCL-8260(14)
L2254892-21Z	Vial Water preserved split	A	NA		2.6	Y	Absent	<b>07-OCT-22 12:02</b>	NYTCL-8260(14)
L2254892-22A	Plastic 2oz unpreserved for TS	A	NA		2.6	Y	Absent		TS(7)

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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2254892-22B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.6	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),TL-TI(180),CU-TI(180),ZN-TI(180),SB-TI(180),PB-TI(180),SE-TI(180),CO-TI(180),V-TI(180),HG-T(28),MG-TI(180),FE-TI(180),MN-TI(180),K-TI(180),NA-TI(180),CD-TI(180),CA-TI(180)
L2254892-22C	Glass 250ml/8oz unpreserved	A	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082-PPM(365)
L2254892-23A	Vial Large Septa unpreserved (4oz)	A	NA		2.6	Y	Absent		TS(7),NYTCL-8260(14)
L2254892-23X	Vial MeOH preserved split	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2254892-23Y	Vial MeOH preserved split	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2254892-23Z	Vial MeOH preserved split	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2254892-24A	Vial Large Septa unpreserved (4oz)	B	NA		2.5	Y	Absent		TS(7),NYTCL-8260(14)
L2254892-24X	Vial MeOH preserved split	B	NA		2.5	Y	Absent		NYTCL-8260(14)
L2254892-24Y	Vial Water preserved split	B	NA		2.5	Y	Absent	<b>07-OCT-22 12:02</b>	NYTCL-8260(14)
L2254892-24Z	Vial Water preserved split	B	NA		2.5	Y	Absent	<b>07-OCT-22 12:02</b>	NYTCL-8260(14)
L2254892-25A	Vial Large Septa unpreserved (4oz)	B	NA		2.5	Y	Absent		TS(7),NYTCL-8260(14)
L2254892-25X	Vial MeOH preserved split	B	NA		2.5	Y	Absent		NYTCL-8260(14)
L2254892-25Y	Vial Water preserved split	B	NA		2.5	Y	Absent	<b>07-OCT-22 12:02</b>	NYTCL-8260(14)
L2254892-25Z	Vial Water preserved split	B	NA		2.5	Y	Absent	<b>07-OCT-22 12:02</b>	NYTCL-8260(14)

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

## 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:** BEACON ISLAND SITE  
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**Lab Number:** L2254892  
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### 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:** BEACON ISLAND SITE  
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**Report Date:** 10/11/22

#### **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:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2254892  
**Report Date:** 10/11/22

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## 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, NO<sub>2</sub>, NO<sub>3</sub>.

### 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, SM4500CI-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, **LCHAT 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.

L2254892 No: 14327



# ATLANTIC TESTING LABORATORIES

## Environmental Chain-Of-Custody Record

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315/786-7887 (T)  
315/786-2022 (F)  
atlWT@atlantictesting.com

Project No.		Client Name		QA/QC Code		Parameters				Report Distribution			
CD10428		La Bella Associates, P.P.C		<input type="checkbox"/> NYSDEC <input type="checkbox"/> SW-846 <input type="checkbox"/> NYSDOH <input type="checkbox"/> CLP <input type="checkbox"/> Other _____		TAL Metals	Semi-VOC EPA 820.7 (RW)	Pesticides EPA 8081	PCB EPA 808.2	TAT Required:	<input type="checkbox"/> 6hr <input type="checkbox"/> 12hr <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input checked="" type="checkbox"/> 5day <input type="checkbox"/> 10day <input type="checkbox"/> Other _____	Custody Seal: X= intact	
Page 1 of 3		ATL Project Contact: Cheyenne Dashnaw		Project Location							E-mail Results:		
Project Name: Beacon Island Site		Beacon Island NY									labSAT@atlantictesting.com		
Date	Time	Field Sample No.	Sample Location	Sample Type	No. of Containers					Notes	Laboratory Sample ID No.		
10/4/22	1130	CD104285501	B-1 0-2	S/C	3	X	X	X	X				
10/4/22	1137	CD104285502	B-1 2-4	S/C	3	X	X	X	X				
10/4/22	1140	CD104285503	B-1A 4-7	S/C	3	X	X	X	X				
10/4/22	1145	CD104285504	B-1A 7-8	S/C	3	X	X	X	X				
10/4/22	1216	CD104285505	B-3 0-2	S/C	3	X	X	X	X				
10/4/22	1225	CD104285506	B-3 2-4	S/C	3	X	X	X	X				
10/4/22	1235	CD104285507	B-3 4-8	S/C	3	X	X	X	X				
10/4/22	1257	CD104285508	B-5 0-2	S/C	3	X	X	X	X				
10/4/22	1305	CD104285509	B-5 2-4	S/C	3	X	X	X	X				
Samplers Name: Jordan Stachowiak		Date: 10/4/22		Received for Name:		Date:		Shipment Rec'd Intact?					
Samplers Signature: Jordan Stachowiak		Time: 1700		Laboratory Signature:		Time:		<input type="checkbox"/> YES <input type="checkbox"/> NO					
Samples Relinquished By:				Samples Received By:				Sample Type Code Key:				Laboratory Remarks	
Name:	Jordan Stachowiak	Date:	10/4/22	Name:	B. Lyons ATL	Date:	10/4/22	Description c Composite    O QA/QC G Grab    O Other Matrix DW Drinking Water    S Soil GW Groundwater    SL Sludge WW Wastewater    WS Solid Waste SM Stormwater    B Bulk O Oil    WP Wipe L Liquid    A Air					
Signature:	<i>Jordan Stachowiak</i>	Time:	1730	Signature:	<i>B. Lyons</i>	Time:	1730						
Name:	B. Lyons	Date:	10/4/22	Name:	Shaun Hoffner	Date:	10/5/22						
Signature:	<i>B. Lyons</i>	Time:	16:15	Signature:	<i>Shaun Hoffner</i>	Time:	0050						





# ATLANTIC TESTING LABORATORIES

## Environmental Chain-Of-Custody Record

- |  |   |  |  |   |  |   |  |  |   |
|--|---|--|--|---|--|---|--|--|---|
| <b>Albany</b><br>22 Corporate Drive<br>Clifton Park, NY 12065<br>518/383-9144 (T)<br>518/383-9166 (F)<br>atl@atlantictesting.com | <b>Binghamton</b><br>126 Park Avenue<br>Binghamton, NY 13903<br>607/773-1812 (T)<br>607/773-1835 (F)<br>atl@atlantictesting.com | <b>Canton</b><br>6431 U.S. Highway 11<br>Canton, NY 13617<br>315/386-4578 (T)<br>315/386-1012 (F)<br>atl@atlantictesting.com | <b>Elmira</b><br>2330 Route 352<br>Elmira, NY 14903<br>607/737-0700 (T)<br>607/737-0714 (F)<br>atl@atlantictesting.com | <b>Plattsburgh</b><br>130 Arizona Ave<br>Plattsburgh, NY 12903<br>518/563-5878 (T)<br>518/562-1321 (F)<br>atl@atlantictesting.com | <b>Poughkeepsie</b><br>251 Upper North Road<br>Highland, NY 12528<br>845/691-6098 (T)<br>845/691-8099 (F)<br>atl@atlantictesting.com | <b>Rochester</b><br>3495 Winton Place<br>Rochester, NY 14623<br>585/427-9020 (T)<br>585/427-9021 (F)<br>atl@atlantictesting.com | <b>Syracuse</b><br>6085 Court Street Road<br>Syracuse, NY 13206<br>315/699-5261 (T)<br>315/699-3374 (F)<br>atl@atlantictesting.com | <b>Utica</b><br>301 St. Anthony Street<br>Utica, NY 13501<br>315/735-3308 (T)<br>315/735-0742 (F)<br>atl@atlantictesting.com | <b>Watertown</b><br>26581 NYS Route 283<br>Watertown, NY 13601<br>315/786-7887 (T)<br>315/786-2022 (F)<br>atl@atlantictesting.com |
|--|---|--|--|---|--|---|--|--|---|

Project No.		Client Name		QA/QC Code		Parameters				Report Distribution		Custody Seal: X= intact	
CD10428		La Bella Associates, D.P.C.		<input type="checkbox"/> NYSDEC <input type="checkbox"/> SW-846 <input type="checkbox"/> NYSDOH <input type="checkbox"/> CLP <input type="checkbox"/> Other		TAL Metals	Semi-MC EPA 820.2 (SLP)	Pesticides EPA 801.1	PCB EPA 808.2	TAT Required:	<input type="checkbox"/> 6hr <input type="checkbox"/> 12hr <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input checked="" type="checkbox"/> 5day <input type="checkbox"/> 10day <input type="checkbox"/> Other		
Page 2 of 3		ATL Project Contact: Cheyenne Dashnaw		Project Location: Beacon Island NY						E-mail Results:	labscf@atlantictesting.com		
Project Name: Beacon Island Site		Date		Sample Type						Notes			Laboratory Sample ID No.
Date	Time	Field Sample No.	Sample Location	No. of Containers									
10/4/22	1314	CD104285510	B-5 4-8	3	S/C	X	X	X	X				
10/4/22	1333	CD104285511	B-6 0-2	3	S/C	X	X	X	X				
10/4/22	1340	CD104285512	B-6 2-4	3	S/C	X	X	X	X				
10/4/22	1347	CD104285513	B-6 4-8	3	S/C	X	X	X	X				
10/4/22	1400	CD104285514	B-8 0-2	3	S/C	X	X	X	X				
10/4/22	1402	CD104285515	B-8 2-4	3	S/C	X	X	X	X				
10/4/22	1404	CD104285516	B-8 4-8	3	S/C	X	X	X	X				
10/4/22	1500	CD104285517	B-11 0-1	3	S/C	X	X	X	X				
10/4/22	1502	CD104285518	B-11 1-4	3	S/C	X	X	X	X				
Samplers Name: Jordan Stuchwieser		Date: 10/4/2022		Received for Name:		Date:		Shipment Rec'd Intact?					
Samplers Signature: [Signature]		Time: 1700		Laboratory Signature:		Time:		<input type="checkbox"/> YES <input type="checkbox"/> NO					
Samples Relinquished By:				Samples Received By:				Sample Type Code Key:		Laboratory Remarks			
Name:	Jordan Stuchwieser		Date:	10/4/22		Name:	B Lyons ARK		Date:	10/4/22			
Signature:	[Signature]		Time:	1730		Signature:	[Signature]		Time:	17:30			
Name:	B. Lyons		Date:	10/4/22		Name:	Sharon Hoffman		Date:	10/5/22			
Signature:	[Signature]		Time:	10:15		Signature:	[Signature]		Time:	0050			
						Description C Composite    Q QA/QC G Grab    O Other Matrix DW Drinking Water    S Soil GW Groundwater    SL Sludge WW Wastewater    WS Solid Waste SM Stormwater    B Bulk O Oil    WP Wipe L Liquid    A Air							



No: 14329



# ATLANTIC TESTING LABORATORIES

## Environmental Chain-Of-Custody Record

**Albany**  
22 Corporate Drive  
Clifton Park, NY 12065  
518/363-8144 (T)  
518/383-9166 (F)  
labsAT@atlantictesting.com

**Binghamton**  
126 Park Avenue  
Binghamton, NY 13903  
607/773-1812 (T)  
607/773-1835 (F)  
labsBT@atlantictesting.com

**Canton**  
6431 U.S. Highway 11  
Canton, NY 13617  
315/386-4578 (T)  
315/386-1012 (F)  
labsCT@atlantictesting.com

**Elmira**  
2330 Route 352  
Elmira, NY 14903  
607/737-0700 (T)  
607/737-0714 (F)  
labsET@atlantictesting.com

**Plattsburgh**  
130 Arizona Ave  
Plattsburgh, NY 12903  
518/562-5878 (T)  
518/562-1321 (F)  
labsPT@atlantictesting.com

**Poughkeepsie**  
251 Upper North Road  
Highland, NY 12528  
845/691-6098 (T)  
845/691-6099 (F)  
labsPT@atlantictesting.com

**Rochester**  
3495 Winton Place  
Rochester, NY 14623  
585/427-9020 (T)  
585/427-9021 (F)  
labsRT@atlantictesting.com

**Syracuse**  
6085 Court Street Road  
Syracuse, NY 13206  
315/699-5281 (T)  
315/699-3374 (F)  
labsST@atlantictesting.com

**Utica**  
301 St. Anthony Street  
Utica, NY 13501  
315/735-3308 (T)  
315/735-0742 (F)  
labsUT@atlantictesting.com

**Watertown**  
26581 NYS Route 283  
Watertown, NY 13601  
315/786-7887 (T)  
315/786-2022 (F)  
labsWT@atlantictesting.com

Project No.		Client Name		QA/QC Code		Parameters					Report Distribution	
CD10428		LaBella Associates, D.P.C.		<input type="checkbox"/> NYSDEC <input type="checkbox"/> SW-B46 <input type="checkbox"/> NYSDOH <input type="checkbox"/> CLP <input type="checkbox"/> Other _____		TAL metals SEMI-VOC EPA 8207 (S/N) Pesticides EPA 8081 PCB EPA 8082 VOCs EPA 8160					TAT Required: <input type="checkbox"/> 6hr <input type="checkbox"/> 12hr <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input checked="" type="checkbox"/> 5day <input type="checkbox"/> 10day <input type="checkbox"/> Other _____	
Page 3 of 3		ATL Project Contact: Cheyenne Dashnaw		Project Location						E-mail Results: labstc@atlantictesting.com		Custody Seal: X= intact
Project Name: Beacon Island Site		Date		No. of Containers						Laboratory Sample ID No.		
Date	Time	Field Sample No.	Sample Location	Sample Type	No. of Containers						Notes	
10/4/22	1503	CD10428519	D-11 4-8	S/C	3	X	X	X	X			
10/4/22	1526	CD10428520	B-12 <del>0.5-1.0</del> 0.5-1.0	S/C	4	X	X	X	X	X		
10/4/22	1531	CD10428521	B-12 1.0-4	S/C	4	X	X	X	X	X		
10/4/22	1536	CD10428522	B-12 4-8	S/C	3	X	X	X	X			
10/4/22	1544	CD10428523	B-13 0.0-2.0	S/C	1					X		
10/4/22	1555	CD10428524	B-14 0.5-1.0	S/C	1					X		
10/4/22	1602	CD10428525	B-14 0-8	S/C	1					X		

Samplers Name: <i>Jordan Starkov</i>	Date: 10/4/22	Received for Name:	Date:	Shipment Rec'd Intact?
Samplers Signature: <i>Jordan Starkov</i>	Time: 1700	Laboratory Signature:	Time:	<input type="checkbox"/> YES <input type="checkbox"/> NO

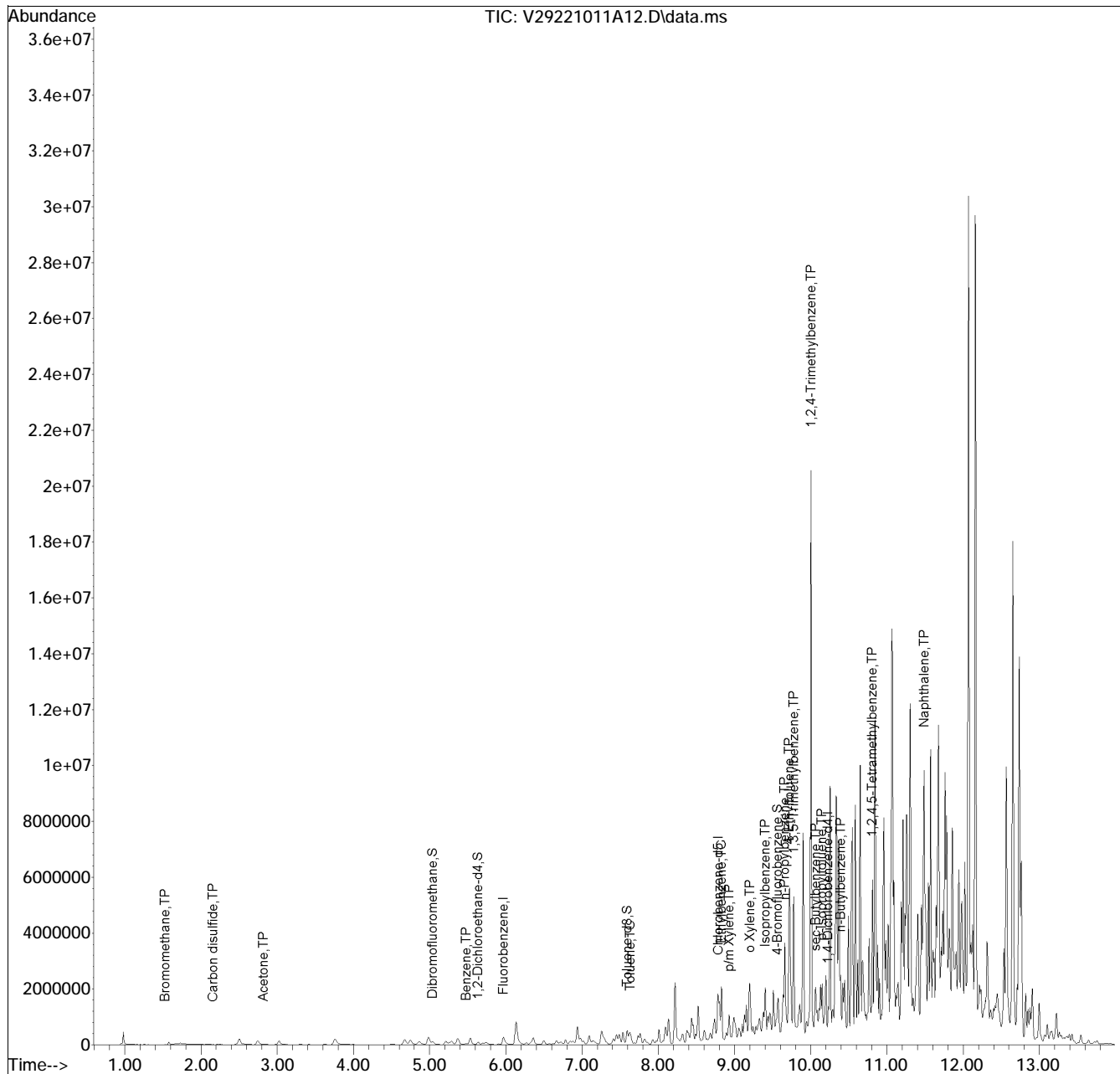
Samples Relinquished By:		Samples Received By:		Sample Type Code Key:		Laboratory Remarks
Name: <i>Jordan Starkov</i>	Date: 10/4/22	Name: <i>B Lyons ATL</i>	Date: 10/4/22	Description Composite O QA/QC Grab G Other Matrix DW Drinking Water S Soil GW Groundwater SL Sludge WW Wastewater WS Solid Waste SM Stormwater B Bulk O Oil WP Wipe L Liquid A Air		
Signature: <i>Jordan Starkov</i>	Time: 1730	Signature: <i>B Lyons</i>	Time: 1713			
Name: <i>B Lyons</i>	Date: 10/4/22	Name: <i>Shawntoffner</i>	Date: 10/5/22			
Signature: <i>B Lyons</i>	Time: 16:15	Signature: <i>Shawntoffner</i>	Time: 2030			

## Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA129\2022\221011A\  
 Data File : V29221011A12.D  
 Acq On : 11 Oct 2022 11:32 am  
 Operator : VOA129:NLK  
 Sample : L2254892-24,31H,5.93,5,0.100,,X,R3E  
 Misc : WG1698053,ICAL19353  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 11 12:12:35 2022  
 Quant Method : I:\VOLATILES\VOA129\2022\221011A\V129\_220921N\_8260.m  
 Quant Title : VOLATILES BY GC/MS  
 QLast Update : Thu Sep 22 07:23:42 2022  
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox21011A\V29221011A01.D•





## ANALYTICAL REPORT

Lab Number:	L2255415
Client:	Atlantic Testing Laboratories, Limited 6431 US Highway 11 PO Box 29 Canton, NY 13617
ATTN:	Cheyenne Dashnaw
Phone:	(315) 386-4578
Project Name:	BEACON ISLAND SITE
Project Number:	CD10428
Report Date:	10/13/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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).

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



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2255415-01	CD10428SS26	SOIL	BEACON ISLAND, NY	10/05/22 08:35	10/06/22
L2255415-02	CD10428SS27	SOIL	BEACON ISLAND, NY	10/05/22 08:50	10/06/22
L2255415-03	CD10428SS28	SOIL	BEACON ISLAND, NY	10/05/22 09:05	10/06/22
L2255415-04	CD10428SS29	SOIL	BEACON ISLAND, NY	10/05/22 09:15	10/06/22
L2255415-05	CD10428SS30	SOIL	BEACON ISLAND, NY	10/05/22 11:10	10/06/22
L2255415-06	CD10428SS31	SOIL	BEACON ISLAND, NY	10/05/22 11:30	10/06/22
L2255415-07	CD10428SS32	SOIL	BEACON ISLAND, NY	10/05/22 11:55	10/06/22
L2255415-08	CD10428SS33	SOIL	BEACON ISLAND, NY	10/05/22 12:05	10/06/22

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

### 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.

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**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

### 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

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

L2255415-03: The analysis of Volatile Organics was performed from a methanol extract due to the elevated concentrations of non-target compounds in the sample.

L2255415-03: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (141%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

#### Semivolatile Organics

L2255415-01D and -03D: The sample has elevated detection limits due to the dilution required by the sample matrix.

#### PCBs

L2255415-03D: The sample has elevated detection limits due to the dilution required by the sample matrix.

#### Total Metals

L2255415-01, -02, -05, -06 and -07: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1697776-3 MS recoveries for aluminum (1200%), iron (5250%), and vanadium (163%), performed on L2255415-01, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1697776-3 MS recovery, performed on L2255415-01, is outside the acceptance criteria for thallium

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

### Case Narrative (continued)

(60%). A post digestion spike was performed and yielded an unacceptable recovery for thallium (70%). The serial dilution recovery was not applicable; therefore, this element fails the matrix test and the result reported in the native sample should be considered estimated.

The WG1697776-3 MS recovery, performed on L2255415-01, is outside the acceptance criteria for calcium (168%). A post digestion spike was performed and yielded an unacceptable recovery for calcium (50%). The serial dilution recovery was acceptable; therefore, the matrix test passed for the sample matrix.

The WG1697776-3 MS recovery, performed on L2255415-01, is outside the acceptance criteria for zinc (132%). A post digestion spike was performed and was within acceptance criteria.

The WG1697776-4 Laboratory Duplicate RPDs for arsenic (30%), barium (59%), iron (65%), magnesium (38%), nickel (21%) and zinc (43%), performed on L2255415-01, are outside the acceptance criteria. The elevated RPDs have been attributed to the non-homogeneous nature of 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:  - Tiffani Morrissey

Title: Technical Director/Representative

Date: 10/13/22

# ORGANICS

# VOLATILES

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-01  
 Client ID: CD10428SS26  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 08:35  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/12/22 02:20  
 Analyst: JIC  
 Percent Solids: 73%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.5	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.55	0.22	1
Chlorobenzene	ND		ug/kg	0.55	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.4	0.77	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.55	0.18	1
Bromodichloromethane	ND		ug/kg	0.55	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.55	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.55	0.17	1
Bromoform	ND		ug/kg	4.4	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.55	0.18	1
Benzene	ND		ug/kg	0.55	0.18	1
Toluene	ND		ug/kg	1.1	0.60	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.4	1.0	1
Bromomethane	ND		ug/kg	2.2	0.64	1
Vinyl chloride	ND		ug/kg	1.1	0.37	1
Chloroethane	ND		ug/kg	2.2	0.50	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.15	1
Trichloroethene	ND		ug/kg	0.55	0.15	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-01  
**Client ID:** CD10428SS26  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 08:35  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.62	1
o-Xylene	ND		ug/kg	1.1	0.32	1
Xylenes, Total	ND		ug/kg	1.1	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.3	1
Carbon disulfide	ND		ug/kg	11	5.0	1
2-Butanone	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.31	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	1.1	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.4	0.72	1
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.36	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.37	1
Methyl Acetate	ND		ug/kg	4.4	1.0	1
Cyclohexane	ND		ug/kg	11	0.60	1
1,4-Dioxane	ND		ug/kg	88	39.	1
Freon-113	ND		ug/kg	4.4	0.77	1
Methyl cyclohexane	ND		ug/kg	4.4	0.67	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-01  
 Client ID: CD10428SS26  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 08:35  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	106		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-02  
 Client ID: CD10428SS27  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 08:50  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/12/22 02:46  
 Analyst: JIC  
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	4.0	1.8	1
1,1-Dichloroethane	ND		ug/kg	0.80	0.12	1
Chloroform	ND		ug/kg	1.2	0.11	1
Carbon tetrachloride	ND		ug/kg	0.80	0.18	1
1,2-Dichloropropane	ND		ug/kg	0.80	0.10	1
Dibromochloromethane	ND		ug/kg	0.80	0.11	1
1,1,2-Trichloroethane	ND		ug/kg	0.80	0.21	1
Tetrachloroethene	ND		ug/kg	0.40	0.16	1
Chlorobenzene	ND		ug/kg	0.40	0.10	1
Trichlorofluoromethane	ND		ug/kg	3.2	0.56	1
1,2-Dichloroethane	ND		ug/kg	0.80	0.21	1
1,1,1-Trichloroethane	ND		ug/kg	0.40	0.13	1
Bromodichloromethane	ND		ug/kg	0.40	0.09	1
trans-1,3-Dichloropropene	ND		ug/kg	0.80	0.22	1
cis-1,3-Dichloropropene	ND		ug/kg	0.40	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	0.40	0.13	1
Bromoform	ND		ug/kg	3.2	0.20	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.40	0.13	1
Benzene	ND		ug/kg	0.40	0.13	1
Toluene	ND		ug/kg	0.80	0.44	1
Ethylbenzene	ND		ug/kg	0.80	0.11	1
Chloromethane	ND		ug/kg	3.2	0.75	1
Bromomethane	ND		ug/kg	1.6	0.47	1
Vinyl chloride	ND		ug/kg	0.80	0.27	1
Chloroethane	ND		ug/kg	1.6	0.36	1
1,1-Dichloroethene	ND		ug/kg	0.80	0.19	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	0.11	1
Trichloroethene	ND		ug/kg	0.40	0.11	1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-02  
**Client ID:** CD10428SS27  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 08:50  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichlorobenzene	ND		ug/kg	1.6	0.12	1
1,3-Dichlorobenzene	ND		ug/kg	1.6	0.12	1
1,4-Dichlorobenzene	ND		ug/kg	1.6	0.14	1
Methyl tert butyl ether	ND		ug/kg	1.6	0.16	1
p/m-Xylene	ND		ug/kg	1.6	0.45	1
o-Xylene	ND		ug/kg	0.80	0.23	1
Xylenes, Total	ND		ug/kg	0.80	0.23	1
cis-1,2-Dichloroethene	ND		ug/kg	0.80	0.14	1
1,2-Dichloroethene, Total	ND		ug/kg	0.80	0.11	1
Styrene	ND		ug/kg	0.80	0.16	1
Dichlorodifluoromethane	ND		ug/kg	8.0	0.73	1
Acetone	92		ug/kg	8.0	3.9	1
Carbon disulfide	ND		ug/kg	8.0	3.6	1
2-Butanone	2.6	J	ug/kg	8.0	1.8	1
4-Methyl-2-pentanone	ND		ug/kg	8.0	1.0	1
2-Hexanone	ND		ug/kg	8.0	0.95	1
Bromochloromethane	ND		ug/kg	1.6	0.16	1
1,2-Dibromoethane	ND		ug/kg	0.80	0.22	1
n-Butylbenzene	ND		ug/kg	0.80	0.13	1
sec-Butylbenzene	ND		ug/kg	0.80	0.12	1
tert-Butylbenzene	ND		ug/kg	1.6	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.4	0.80	1
Isopropylbenzene	ND		ug/kg	0.80	0.09	1
p-Isopropyltoluene	ND		ug/kg	0.80	0.09	1
Naphthalene	ND		ug/kg	3.2	0.52	1
n-Propylbenzene	ND		ug/kg	0.80	0.14	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.6	0.26	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.6	0.22	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.6	0.16	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.6	0.27	1
Methyl Acetate	ND		ug/kg	3.2	0.76	1
Cyclohexane	ND		ug/kg	8.0	0.44	1
1,4-Dioxane	ND		ug/kg	64	28.	1
Freon-113	ND		ug/kg	3.2	0.56	1
Methyl cyclohexane	ND		ug/kg	3.2	0.48	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-02  
 Client ID: CD10428SS27  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 08:50  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	103		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-03  
 Client ID: CD10428SS28  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 09:05  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/12/22 05:21  
 Analyst: JIC  
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	330	150	1
1,1-Dichloroethane	ND		ug/kg	67	9.7	1
Chloroform	ND		ug/kg	100	9.4	1
Carbon tetrachloride	ND		ug/kg	67	15.	1
1,2-Dichloropropane	ND		ug/kg	67	8.4	1
Dibromochloromethane	ND		ug/kg	67	9.4	1
1,1,2-Trichloroethane	ND		ug/kg	67	18.	1
Tetrachloroethene	ND		ug/kg	33	13.	1
Chlorobenzene	ND		ug/kg	33	8.5	1
Trichlorofluoromethane	ND		ug/kg	270	46.	1
1,2-Dichloroethane	ND		ug/kg	67	17.	1
1,1,1-Trichloroethane	ND		ug/kg	33	11.	1
Bromodichloromethane	ND		ug/kg	33	7.3	1
trans-1,3-Dichloropropene	ND		ug/kg	67	18.	1
cis-1,3-Dichloropropene	ND		ug/kg	33	10.	1
1,3-Dichloropropene, Total	ND		ug/kg	33	10.	1
Bromoform	ND		ug/kg	270	16.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	33	11.	1
Benzene	ND		ug/kg	33	11.	1
Toluene	ND		ug/kg	67	36.	1
Ethylbenzene	83		ug/kg	67	9.4	1
Chloromethane	ND		ug/kg	270	62.	1
Bromomethane	ND		ug/kg	130	39.	1
Vinyl chloride	ND		ug/kg	67	22.	1
Chloroethane	ND		ug/kg	130	30.	1
1,1-Dichloroethene	ND		ug/kg	67	16.	1
trans-1,2-Dichloroethene	ND		ug/kg	100	9.2	1
Trichloroethene	ND		ug/kg	33	9.2	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-03  
**Client ID:** CD10428SS28  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 09:05  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichlorobenzene	ND		ug/kg	130	9.6	1
1,3-Dichlorobenzene	ND		ug/kg	130	9.9	1
1,4-Dichlorobenzene	ND		ug/kg	130	11.	1
Methyl tert butyl ether	ND		ug/kg	130	13.	1
p/m-Xylene	ND		ug/kg	130	37.	1
o-Xylene	ND		ug/kg	67	19.	1
Xylenes, Total	ND		ug/kg	67	19.	1
cis-1,2-Dichloroethene	ND		ug/kg	67	12.	1
1,2-Dichloroethene, Total	ND		ug/kg	67	9.2	1
Styrene	ND		ug/kg	67	13.	1
Dichlorodifluoromethane	ND		ug/kg	670	61.	1
Acetone	ND		ug/kg	670	320	1
Carbon disulfide	ND		ug/kg	670	300	1
2-Butanone	ND		ug/kg	670	150	1
4-Methyl-2-pentanone	ND		ug/kg	670	86.	1
2-Hexanone	ND		ug/kg	670	79.	1
Bromochloromethane	ND		ug/kg	130	14.	1
1,2-Dibromoethane	ND		ug/kg	67	19.	1
n-Butylbenzene	240		ug/kg	67	11.	1
sec-Butylbenzene	260		ug/kg	67	9.8	1
tert-Butylbenzene	15	J	ug/kg	130	7.9	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	200	67.	1
Isopropylbenzene	160		ug/kg	67	7.3	1
p-Isopropyltoluene	31	J	ug/kg	67	7.3	1
Naphthalene	110	J	ug/kg	270	44.	1
n-Propylbenzene	160		ug/kg	67	11.	1
1,2,3-Trichlorobenzene	ND		ug/kg	130	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	130	18.	1
1,3,5-Trimethylbenzene	ND		ug/kg	130	13.	1
1,2,4-Trimethylbenzene	37	J	ug/kg	130	22.	1
Methyl Acetate	ND		ug/kg	270	64.	1
Cyclohexane	90	J	ug/kg	670	36.	1
1,4-Dioxane	ND		ug/kg	5400	2300	1
Freon-113	ND		ug/kg	270	46.	1
Methyl cyclohexane	180	J	ug/kg	270	40.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-03  
 Client ID: CD10428SS28  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 09:05  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	141	Q	70-130
Dibromofluoromethane	97		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-04  
 Client ID: CD10428SS29  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 09:15  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/12/22 03:12  
 Analyst: JIC  
 Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	4.4	2.0	1
1,1-Dichloroethane	ND		ug/kg	0.89	0.13	1
Chloroform	ND		ug/kg	1.3	0.12	1
Carbon tetrachloride	ND		ug/kg	0.89	0.20	1
1,2-Dichloropropane	ND		ug/kg	0.89	0.11	1
Dibromochloromethane	ND		ug/kg	0.89	0.12	1
1,1,2-Trichloroethane	ND		ug/kg	0.89	0.24	1
Tetrachloroethene	ND		ug/kg	0.44	0.17	1
Chlorobenzene	ND		ug/kg	0.44	0.11	1
Trichlorofluoromethane	ND		ug/kg	3.6	0.62	1
1,2-Dichloroethane	ND		ug/kg	0.89	0.23	1
1,1,1-Trichloroethane	ND		ug/kg	0.44	0.15	1
Bromodichloromethane	ND		ug/kg	0.44	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.89	0.24	1
cis-1,3-Dichloropropene	ND		ug/kg	0.44	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.44	0.14	1
Bromoform	ND		ug/kg	3.6	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.44	0.15	1
Benzene	0.24	J	ug/kg	0.44	0.15	1
Toluene	ND		ug/kg	0.89	0.48	1
Ethylbenzene	ND		ug/kg	0.89	0.12	1
Chloromethane	ND		ug/kg	3.6	0.83	1
Bromomethane	ND		ug/kg	1.8	0.52	1
Vinyl chloride	ND		ug/kg	0.89	0.30	1
Chloroethane	ND		ug/kg	1.8	0.40	1
1,1-Dichloroethene	ND		ug/kg	0.89	0.21	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	0.12	1
Trichloroethene	ND		ug/kg	0.44	0.12	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-04  
**Client ID:** CD10428SS29  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 09:15  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.15	1
Methyl tert butyl ether	ND		ug/kg	1.8	0.18	1
p/m-Xylene	ND		ug/kg	1.8	0.50	1
o-Xylene	ND		ug/kg	0.89	0.26	1
Xylenes, Total	ND		ug/kg	0.89	0.26	1
cis-1,2-Dichloroethene	ND		ug/kg	0.89	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	0.89	0.12	1
Styrene	ND		ug/kg	0.89	0.17	1
Dichlorodifluoromethane	ND		ug/kg	8.9	0.81	1
Acetone	110		ug/kg	8.9	4.3	1
Carbon disulfide	ND		ug/kg	8.9	4.0	1
2-Butanone	ND		ug/kg	8.9	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	8.9	1.1	1
2-Hexanone	ND		ug/kg	8.9	1.0	1
Bromochloromethane	ND		ug/kg	1.8	0.18	1
1,2-Dibromoethane	ND		ug/kg	0.89	0.25	1
n-Butylbenzene	ND		ug/kg	0.89	0.15	1
sec-Butylbenzene	ND		ug/kg	0.89	0.13	1
tert-Butylbenzene	ND		ug/kg	1.8	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.7	0.89	1
Isopropylbenzene	ND		ug/kg	0.89	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.89	0.10	1
Naphthalene	ND		ug/kg	3.6	0.58	1
n-Propylbenzene	ND		ug/kg	0.89	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.24	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	0.30	1
Methyl Acetate	ND		ug/kg	3.6	0.84	1
Cyclohexane	ND		ug/kg	8.9	0.48	1
1,4-Dioxane	ND		ug/kg	71	31.	1
Freon-113	ND		ug/kg	3.6	0.62	1
Methyl cyclohexane	ND		ug/kg	3.6	0.54	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-04  
 Client ID: CD10428SS29  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 09:15  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	105		70-130



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-05  
 Client ID: CD10428SS30  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 11:10  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/12/22 03:38  
 Analyst: JIC  
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.1	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	ND		ug/kg	0.51	0.20	1
Chlorobenzene	ND		ug/kg	0.51	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.1	0.71	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.51	0.17	1
Bromodichloromethane	ND		ug/kg	0.51	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
cis-1,3-Dichloropropene	ND		ug/kg	0.51	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.51	0.16	1
Bromoform	ND		ug/kg	4.1	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.51	0.17	1
Benzene	ND		ug/kg	0.51	0.17	1
Toluene	ND		ug/kg	1.0	0.55	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.1	0.95	1
Bromomethane	ND		ug/kg	2.0	0.59	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.46	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1
Trichloroethene	ND		ug/kg	0.51	0.14	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-05  
**Client ID:** CD10428SS30  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 11:10  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.57	1
o-Xylene	ND		ug/kg	1.0	0.30	1
Xylenes, Total	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.93	1
Acetone	64		ug/kg	10	4.9	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.1	0.66	1
n-Propylbenzene	ND		ug/kg	1.0	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.33	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.34	1
Methyl Acetate	ND		ug/kg	4.1	0.96	1
Cyclohexane	ND		ug/kg	10	0.55	1
1,4-Dioxane	ND		ug/kg	81	36.	1
Freon-113	ND		ug/kg	4.1	0.70	1
Methyl cyclohexane	ND		ug/kg	4.1	0.61	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-05  
 Client ID: CD10428SS30  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 11:10  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	103		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-06  
 Client ID: CD10428SS31  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 11:30  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/12/22 04:03  
 Analyst: JIC  
 Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.3	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.15	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.13	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.28	1
Tetrachloroethene	ND		ug/kg	0.53	0.21	1
Chlorobenzene	ND		ug/kg	0.53	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.3	0.74	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.53	0.18	1
Bromodichloromethane	ND		ug/kg	0.53	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.53	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.53	0.17	1
Bromoform	ND		ug/kg	4.3	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.53	0.18	1
Benzene	ND		ug/kg	0.53	0.18	1
Toluene	ND		ug/kg	1.1	0.58	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.3	0.99	1
Bromomethane	ND		ug/kg	2.1	0.62	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1
Trichloroethene	ND		ug/kg	0.53	0.15	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-06  
**Client ID:** CD10428SS31  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 11:30  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.60	1
o-Xylene	ND		ug/kg	1.1	0.31	1
Xylenes, Total	ND		ug/kg	1.1	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	0.98	1
Acetone	21		ug/kg	11	5.1	1
Carbon disulfide	ND		ug/kg	11	4.8	1
2-Butanone	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
2-Hexanone	ND		ug/kg	11	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.3	0.69	1
n-Propylbenzene	ND		ug/kg	1.1	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.36	1
Methyl Acetate	ND		ug/kg	4.3	1.0	1
Cyclohexane	ND		ug/kg	11	0.58	1
1,4-Dioxane	ND		ug/kg	85	37.	1
Freon-113	ND		ug/kg	4.3	0.74	1
Methyl cyclohexane	ND		ug/kg	4.3	0.64	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-06  
 Client ID: CD10428SS31  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 11:30  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-07  
 Client ID: CD10428SS32  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 11:55  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/12/22 04:29  
 Analyst: JIC  
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	3.6	1.6	1
1,1-Dichloroethane	ND		ug/kg	0.71	0.10	1
Chloroform	ND		ug/kg	1.1	0.10	1
Carbon tetrachloride	ND		ug/kg	0.71	0.16	1
1,2-Dichloropropane	ND		ug/kg	0.71	0.09	1
Dibromochloromethane	ND		ug/kg	0.71	0.10	1
1,1,2-Trichloroethane	ND		ug/kg	0.71	0.19	1
Tetrachloroethene	ND		ug/kg	0.36	0.14	1
Chlorobenzene	ND		ug/kg	0.36	0.09	1
Trichlorofluoromethane	ND		ug/kg	2.8	0.49	1
1,2-Dichloroethane	ND		ug/kg	0.71	0.18	1
1,1,1-Trichloroethane	ND		ug/kg	0.36	0.12	1
Bromodichloromethane	ND		ug/kg	0.36	0.08	1
trans-1,3-Dichloropropene	ND		ug/kg	0.71	0.19	1
cis-1,3-Dichloropropene	ND		ug/kg	0.36	0.11	1
1,3-Dichloropropene, Total	ND		ug/kg	0.36	0.11	1
Bromoform	ND		ug/kg	2.8	0.18	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.36	0.12	1
Benzene	ND		ug/kg	0.36	0.12	1
Toluene	ND		ug/kg	0.71	0.39	1
Ethylbenzene	ND		ug/kg	0.71	0.10	1
Chloromethane	ND		ug/kg	2.8	0.66	1
Bromomethane	ND		ug/kg	1.4	0.41	1
Vinyl chloride	ND		ug/kg	0.71	0.24	1
Chloroethane	ND		ug/kg	1.4	0.32	1
1,1-Dichloroethene	ND		ug/kg	0.71	0.17	1
trans-1,2-Dichloroethene	ND		ug/kg	1.1	0.10	1
Trichloroethene	ND		ug/kg	0.36	0.10	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-07  
**Client ID:** CD10428SS32  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 11:55  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichlorobenzene	ND		ug/kg	1.4	0.10	1
1,3-Dichlorobenzene	ND		ug/kg	1.4	0.10	1
1,4-Dichlorobenzene	ND		ug/kg	1.4	0.12	1
Methyl tert butyl ether	ND		ug/kg	1.4	0.14	1
p/m-Xylene	ND		ug/kg	1.4	0.40	1
o-Xylene	ND		ug/kg	0.71	0.21	1
Xylenes, Total	ND		ug/kg	0.71	0.21	1
cis-1,2-Dichloroethene	ND		ug/kg	0.71	0.12	1
1,2-Dichloroethene, Total	ND		ug/kg	0.71	0.10	1
Styrene	ND		ug/kg	0.71	0.14	1
Dichlorodifluoromethane	ND		ug/kg	7.1	0.65	1
Acetone	ND		ug/kg	7.1	3.4	1
Carbon disulfide	ND		ug/kg	7.1	3.2	1
2-Butanone	ND		ug/kg	7.1	1.6	1
4-Methyl-2-pentanone	ND		ug/kg	7.1	0.91	1
2-Hexanone	ND		ug/kg	7.1	0.84	1
Bromochloromethane	ND		ug/kg	1.4	0.14	1
1,2-Dibromoethane	ND		ug/kg	0.71	0.20	1
n-Butylbenzene	ND		ug/kg	0.71	0.12	1
sec-Butylbenzene	ND		ug/kg	0.71	0.10	1
tert-Butylbenzene	ND		ug/kg	1.4	0.08	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.1	0.71	1
Isopropylbenzene	ND		ug/kg	0.71	0.08	1
p-Isopropyltoluene	ND		ug/kg	0.71	0.08	1
Naphthalene	ND		ug/kg	2.8	0.46	1
n-Propylbenzene	ND		ug/kg	0.71	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.4	0.23	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.4	0.19	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.4	0.14	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.4	0.24	1
Methyl Acetate	ND		ug/kg	2.8	0.68	1
Cyclohexane	ND		ug/kg	7.1	0.39	1
1,4-Dioxane	ND		ug/kg	57	25.	1
Freon-113	ND		ug/kg	2.8	0.49	1
Methyl cyclohexane	ND		ug/kg	2.8	0.43	1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-07  
 Client ID: CD10428SS32  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 11:55  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-08  
 Client ID: CD10428SS33  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 12:05  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 10/12/22 04:55  
 Analyst: JIC  
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.3	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	ND		ug/kg	0.53	0.21	1
Chlorobenzene	ND		ug/kg	0.53	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.73	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.53	0.18	1
Bromodichloromethane	ND		ug/kg	0.53	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.53	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.53	0.17	1
Bromoform	ND		ug/kg	4.2	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.53	0.18	1
Benzene	ND		ug/kg	0.53	0.18	1
Toluene	ND		ug/kg	1.0	0.57	1
Ethylbenzene	ND		ug/kg	1.0	0.15	1
Chloromethane	ND		ug/kg	4.2	0.98	1
Bromomethane	ND		ug/kg	2.1	0.61	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1
Trichloroethene	ND		ug/kg	0.53	0.14	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-08  
**Client ID:** CD10428SS33  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 12:05  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.59	1
o-Xylene	ND		ug/kg	1.0	0.31	1
Xylenes, Total	ND		ug/kg	1.0	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Styrene	ND		ug/kg	1.0	0.21	1
Dichlorodifluoromethane	ND		ug/kg	10	0.96	1
Acetone	ND		ug/kg	10	5.1	1
Carbon disulfide	ND		ug/kg	10	4.8	1
2-Butanone	ND		ug/kg	10	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
n-Butylbenzene	ND		ug/kg	1.0	0.18	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.0	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.2	0.68	1
n-Propylbenzene	ND		ug/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.35	1
Methyl Acetate	ND		ug/kg	4.2	1.0	1
Cyclohexane	ND		ug/kg	10	0.57	1
1,4-Dioxane	ND		ug/kg	84	37.	1
Freon-113	ND		ug/kg	4.2	0.73	1
Methyl cyclohexane	ND		ug/kg	4.2	0.64	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-08  
 Client ID: CD10428SS33  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 12:05  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	103		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 21:10  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 03 Batch: WG1698383-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	28	J	ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
1,2-Dichlorobenzene	ND		ug/kg	100	7.2

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 21:10  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 03 Batch: WG1698383-5					
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 21:10  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 03 Batch: WG1698383-5					
Methyl Acetate	120	J	ug/kg	200	48.
Cyclohexane	ND		ug/kg	500	27.
1,4-Dioxane	ND		ug/kg	4000	1800
Freon-113	ND		ug/kg	200	35.
Methyl cyclohexane	ND		ug/kg	200	30.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 21:10  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-08 Batch: WG1698512-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	0.55	J	ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 21:10  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-08 Batch: WG1698512-5					
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 10/11/22 21:10  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-08 Batch: WG1698512-5					
Methyl Acetate	2.4	J	ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
1,4-Dioxane	ND		ug/kg	80	35.
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 03 Batch: WG1698383-3 WG1698383-4								
Methylene chloride	84		84		70-130	0		30
1,1-Dichloroethane	91		89		70-130	2		30
Chloroform	89		89		70-130	0		30
Carbon tetrachloride	94		94		70-130	0		30
1,2-Dichloropropane	85		85		70-130	0		30
Dibromochloromethane	97		96		70-130	1		30
1,1,2-Trichloroethane	90		90		70-130	0		30
Tetrachloroethene	109		107		70-130	2		30
Chlorobenzene	100		100		70-130	0		30
Trichlorofluoromethane	91		92		70-139	1		30
1,2-Dichloroethane	84		84		70-130	0		30
1,1,1-Trichloroethane	98		97		70-130	1		30
Bromodichloromethane	88		88		70-130	0		30
trans-1,3-Dichloropropene	94		94		70-130	0		30
cis-1,3-Dichloropropene	89		88		70-130	1		30
Bromoform	92		91		70-130	1		30
1,1,2,2-Tetrachloroethane	90		88		70-130	2		30
Benzene	91		90		70-130	1		30
Toluene	98		97		70-130	1		30
Ethylbenzene	99		97		70-130	2		30
Chloromethane	86		87		52-130	1		30
Bromomethane	78		80		57-147	3		30
Vinyl chloride	86		86		67-130	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 03 Batch: WG1698383-3 WG1698383-4								
Chloroethane	82		83		50-151	1		30
1,1-Dichloroethene	103		102		65-135	1		30
trans-1,2-Dichloroethene	96		95		70-130	1		30
Trichloroethene	98		97		70-130	1		30
1,2-Dichlorobenzene	103		103		70-130	0		30
1,3-Dichlorobenzene	105		104		70-130	1		30
1,4-Dichlorobenzene	105		103		70-130	2		30
Methyl tert butyl ether	80		80		66-130	0		30
p/m-Xylene	104		103		70-130	1		30
o-Xylene	103		102		70-130	1		30
cis-1,2-Dichloroethene	92		91		70-130	1		30
Styrene	102		101		70-130	1		30
Dichlorodifluoromethane	87		88		30-146	1		30
Acetone	71		72		54-140	1		30
Carbon disulfide	89		88		59-130	1		30
2-Butanone	<b>68</b>	Q	<b>68</b>	Q	70-130	0		30
4-Methyl-2-pentanone	85		84		70-130	1		30
2-Hexanone	77		76		70-130	1		30
Bromochloromethane	99		98		70-130	1		30
1,2-Dibromoethane	97		96		70-130	1		30
n-Butylbenzene	106		105		70-130	1		30
sec-Butylbenzene	106		105		70-130	1		30
tert-Butylbenzene	107		105		70-130	2		30

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 03 Batch: WG1698383-3 WG1698383-4									
1,2-Dibromo-3-chloropropane	87		89		68-130	2		30	
Isopropylbenzene	102		100		70-130	2		30	
p-Isopropyltoluene	109		108		70-130	1		30	
Naphthalene	98		97		70-130	1		30	
n-Propylbenzene	102		100		70-130	2		30	
1,2,3-Trichlorobenzene	101		100		70-130	1		30	
1,2,4-Trichlorobenzene	105		104		70-130	1		30	
1,3,5-Trimethylbenzene	105		104		70-130	1		30	
1,2,4-Trimethylbenzene	105		103		70-130	2		30	
Methyl Acetate	78		77		51-146	1		30	
Cyclohexane	99		99		59-142	0		30	
1,4-Dioxane	109		108		65-136	1		30	
Freon-113	107		106		50-139	1		30	
Methyl cyclohexane	100		100		70-130	0		30	

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	93		94		70-130
Toluene-d8	102		102		70-130
4-Bromofluorobenzene	100		99		70-130
Dibromofluoromethane	102		102		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-08 Batch: WG1698512-3 WG1698512-4								
Methylene chloride	84		84		70-130	0		30
1,1-Dichloroethane	91		89		70-130	2		30
Chloroform	89		89		70-130	0		30
Carbon tetrachloride	94		94		70-130	0		30
1,2-Dichloropropane	85		85		70-130	0		30
Dibromochloromethane	97		96		70-130	1		30
1,1,2-Trichloroethane	90		90		70-130	0		30
Tetrachloroethene	109		107		70-130	2		30
Chlorobenzene	100		100		70-130	0		30
Trichlorofluoromethane	91		92		70-139	1		30
1,2-Dichloroethane	84		84		70-130	0		30
1,1,1-Trichloroethane	98		97		70-130	1		30
Bromodichloromethane	88		88		70-130	0		30
trans-1,3-Dichloropropene	94		94		70-130	0		30
cis-1,3-Dichloropropene	89		88		70-130	1		30
Bromoform	92		91		70-130	1		30
1,1,2,2-Tetrachloroethane	90		88		70-130	2		30
Benzene	91		90		70-130	1		30
Toluene	98		97		70-130	1		30
Ethylbenzene	99		97		70-130	2		30
Chloromethane	86		87		52-130	1		30
Bromomethane	78		80		57-147	3		30
Vinyl chloride	86		86		67-130	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-08 Batch: WG1698512-3 WG1698512-4								
Chloroethane	82		83		50-151	1		30
1,1-Dichloroethene	103		102		65-135	1		30
trans-1,2-Dichloroethene	96		95		70-130	1		30
Trichloroethene	98		97		70-130	1		30
1,2-Dichlorobenzene	103		103		70-130	0		30
1,3-Dichlorobenzene	105		104		70-130	1		30
1,4-Dichlorobenzene	105		103		70-130	2		30
Methyl tert butyl ether	80		80		66-130	0		30
p/m-Xylene	104		103		70-130	1		30
o-Xylene	103		102		70-130	1		30
cis-1,2-Dichloroethene	92		91		70-130	1		30
Styrene	102		101		70-130	1		30
Dichlorodifluoromethane	87		88		30-146	1		30
Acetone	71		72		54-140	1		30
Carbon disulfide	89		88		59-130	1		30
2-Butanone	<b>68</b>	Q	<b>68</b>	Q	70-130	0		30
4-Methyl-2-pentanone	85		84		70-130	1		30
2-Hexanone	77		76		70-130	1		30
Bromochloromethane	99		98		70-130	1		30
1,2-Dibromoethane	97		96		70-130	1		30
n-Butylbenzene	106		105		70-130	1		30
sec-Butylbenzene	106		105		70-130	1		30
tert-Butylbenzene	107		105		70-130	2		30

## Lab Control Sample Analysis Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-08 Batch: WG1698512-3 WG1698512-4								
1,2-Dibromo-3-chloropropane	87		89		68-130	2		30
Isopropylbenzene	102		100		70-130	2		30
p-Isopropyltoluene	109		108		70-130	1		30
Naphthalene	98		97		70-130	1		30
n-Propylbenzene	102		100		70-130	2		30
1,2,3-Trichlorobenzene	101		100		70-130	1		30
1,2,4-Trichlorobenzene	105		104		70-130	1		30
1,3,5-Trimethylbenzene	105		104		70-130	1		30
1,2,4-Trimethylbenzene	105		103		70-130	2		30
Methyl Acetate	78		77		51-146	1		30
Cyclohexane	99		99		59-142	0		30
1,4-Dioxane	109		108		65-136	1		30
Freon-113	107		106		50-139	1		30
Methyl cyclohexane	100		100		70-130	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		94		70-130
Toluene-d8	102		102		70-130
4-Bromofluorobenzene	100		99		70-130
Dibromofluoromethane	102		102		70-130





# SEMIVOLATILES

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-01 D  
 Client ID: CD10428SS26  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 08:35  
 Date Received: 10/06/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/13/22 10:56  
 Analyst: WR  
 Percent Solids: 73%

Extraction Method: EPA 3546  
 Extraction Date: 10/12/22 16:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	900	120	5
1,2,4-Trichlorobenzene	ND		ug/kg	1100	130	5
Hexachlorobenzene	ND		ug/kg	680	130	5
Bis(2-chloroethyl)ether	ND		ug/kg	1000	150	5
2-Chloronaphthalene	ND		ug/kg	1100	110	5
1,2-Dichlorobenzene	ND		ug/kg	1100	200	5
1,3-Dichlorobenzene	ND		ug/kg	1100	190	5
1,4-Dichlorobenzene	ND		ug/kg	1100	200	5
3,3'-Dichlorobenzidine	ND		ug/kg	1100	300	5
2,4-Dinitrotoluene	ND		ug/kg	1100	220	5
2,6-Dinitrotoluene	ND		ug/kg	1100	190	5
Fluoranthene	430	J	ug/kg	680	130	5
4-Chlorophenyl phenyl ether	ND		ug/kg	1100	120	5
4-Bromophenyl phenyl ether	ND		ug/kg	1100	170	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1400	190	5
Bis(2-chloroethoxy)methane	ND		ug/kg	1200	110	5
Hexachlorobutadiene	ND		ug/kg	1100	160	5
Hexachlorocyclopentadiene	ND		ug/kg	3200	1000	5
Hexachloroethane	ND		ug/kg	900	180	5
Isophorone	ND		ug/kg	1000	150	5
Naphthalene	ND		ug/kg	1100	140	5
Nitrobenzene	ND		ug/kg	1000	170	5
NDPA/DPA	ND		ug/kg	900	130	5
n-Nitrosodi-n-propylamine	ND		ug/kg	1100	170	5
Bis(2-ethylhexyl)phthalate	ND		ug/kg	1100	390	5
Butyl benzyl phthalate	ND		ug/kg	1100	280	5
Di-n-butylphthalate	ND		ug/kg	1100	210	5
Di-n-octylphthalate	ND		ug/kg	1100	380	5

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-01 D  
 Client ID: CD10428SS26  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 08:35  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	1100	100	5
Dimethyl phthalate	ND		ug/kg	1100	240	5
Benzo(a)anthracene	190	J	ug/kg	680	130	5
Benzo(a)pyrene	ND		ug/kg	900	270	5
Benzo(b)fluoranthene	260	J	ug/kg	680	190	5
Benzo(k)fluoranthene	ND		ug/kg	680	180	5
Chrysene	190	J	ug/kg	680	120	5
Acenaphthylene	ND		ug/kg	900	170	5
Anthracene	ND		ug/kg	680	220	5
Benzo(ghi)perylene	140	J	ug/kg	900	130	5
Fluorene	ND		ug/kg	1100	110	5
Phenanthrene	300	J	ug/kg	680	140	5
Dibenzo(a,h)anthracene	ND		ug/kg	680	130	5
Indeno(1,2,3-cd)pyrene	ND		ug/kg	900	160	5
Pyrene	380	J	ug/kg	680	110	5
Biphenyl	ND		ug/kg	2600	150	5
4-Chloroaniline	ND		ug/kg	1100	200	5
2-Nitroaniline	ND		ug/kg	1100	220	5
3-Nitroaniline	ND		ug/kg	1100	210	5
4-Nitroaniline	ND		ug/kg	1100	470	5
Dibenzofuran	ND		ug/kg	1100	110	5
2-Methylnaphthalene	150	J	ug/kg	1400	140	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	1100	120	5
Acetophenone	ND		ug/kg	1100	140	5
Benzyl Alcohol	ND		ug/kg	1100	340	5
Carbazole	ND		ug/kg	1100	110	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	37		25-120
Phenol-d6	35		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	39		30-120
2,4,6-Tribromophenol	36		10-136
4-Terphenyl-d14	28		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-02  
**Client ID:** CD10428SS27  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 08:50  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8270E  
**Analytical Date:** 10/13/22 06:51  
**Analyst:** WR  
**Percent Solids:** 82%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/12/22 16:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-02  
**Client ID:** CD10428SS27  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 08:50  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	26.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	24.	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	50		30-120
2,4,6-Tribromophenol	50		10-136
4-Terphenyl-d14	38		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-03 D  
 Client ID: CD10428SS28  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 09:05  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/13/22 13:16  
 Analyst: WR  
 Percent Solids: 83%

Extraction Method: EPA 3546  
 Extraction Date: 10/12/22 16:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	1000	J	ug/kg	1600	210	10
1,2,4-Trichlorobenzene	ND		ug/kg	2000	230	10
Hexachlorobenzene	ND		ug/kg	1200	220	10
Bis(2-chloroethyl)ether	ND		ug/kg	1800	270	10
2-Chloronaphthalene	ND		ug/kg	2000	200	10
1,2-Dichlorobenzene	ND		ug/kg	2000	360	10
1,3-Dichlorobenzene	ND		ug/kg	2000	340	10
1,4-Dichlorobenzene	ND		ug/kg	2000	350	10
3,3'-Dichlorobenzidine	ND		ug/kg	2000	530	10
2,4-Dinitrotoluene	ND		ug/kg	2000	400	10
2,6-Dinitrotoluene	ND		ug/kg	2000	340	10
Fluoranthene	ND		ug/kg	1200	230	10
4-Chlorophenyl phenyl ether	ND		ug/kg	2000	210	10
4-Bromophenyl phenyl ether	ND		ug/kg	2000	300	10
Bis(2-chloroisopropyl)ether	ND		ug/kg	2400	340	10
Bis(2-chloroethoxy)methane	ND		ug/kg	2200	200	10
Hexachlorobutadiene	ND		ug/kg	2000	290	10
Hexachlorocyclopentadiene	ND		ug/kg	5700	1800	10
Hexachloroethane	ND		ug/kg	1600	320	10
Isophorone	ND		ug/kg	1800	260	10
Naphthalene	980	J	ug/kg	2000	240	10
Nitrobenzene	ND		ug/kg	1800	290	10
NDPA/DPA	ND		ug/kg	1600	230	10
n-Nitrosodi-n-propylamine	ND		ug/kg	2000	310	10
Bis(2-ethylhexyl)phthalate	ND		ug/kg	2000	690	10
Butyl benzyl phthalate	ND		ug/kg	2000	500	10
Di-n-butylphthalate	ND		ug/kg	2000	380	10
Di-n-octylphthalate	ND		ug/kg	2000	680	10

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-03 D  
 Client ID: CD10428SS28  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 09:05  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	2000	180	10
Dimethyl phthalate	ND		ug/kg	2000	420	10
Benzo(a)anthracene	ND		ug/kg	1200	220	10
Benzo(a)pyrene	ND		ug/kg	1600	490	10
Benzo(b)fluoranthene	ND		ug/kg	1200	340	10
Benzo(k)fluoranthene	ND		ug/kg	1200	320	10
Chrysene	470	J	ug/kg	1200	210	10
Acenaphthylene	ND		ug/kg	1600	310	10
Anthracene	400	J	ug/kg	1200	390	10
Benzo(ghi)perylene	ND		ug/kg	1600	230	10
Fluorene	1100	J	ug/kg	2000	190	10
Phenanthrene	2800		ug/kg	1200	240	10
Dibenzo(a,h)anthracene	ND		ug/kg	1200	230	10
Indeno(1,2,3-cd)pyrene	ND		ug/kg	1600	280	10
Pyrene	570	J	ug/kg	1200	200	10
Biphenyl	260	J	ug/kg	4500	260	10
4-Chloroaniline	ND		ug/kg	2000	360	10
2-Nitroaniline	ND		ug/kg	2000	380	10
3-Nitroaniline	ND		ug/kg	2000	380	10
4-Nitroaniline	ND		ug/kg	2000	820	10
Dibenzofuran	ND		ug/kg	2000	190	10
2-Methylnaphthalene	8400		ug/kg	2400	240	10
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	2000	210	10
Acetophenone	ND		ug/kg	2000	250	10
Benzyl Alcohol	ND		ug/kg	2000	610	10
Carbazole	ND		ug/kg	2000	190	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	109		23-120
2-Fluorobiphenyl	63		30-120
2,4,6-Tribromophenol	60		10-136
4-Terphenyl-d14	64		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-04  
 Client ID: CD10428SS29  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 09:15  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/13/22 06:02  
 Analyst: WR  
 Percent Solids: 84%

Extraction Method: EPA 3546  
 Extraction Date: 10/12/22 16:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-04  
**Client ID:** CD10428SS29  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 09:15  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	26.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	81.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	ND		ug/kg	200	24.	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	55		30-120
2,4,6-Tribromophenol	50		10-136
4-Terphenyl-d14	41		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-05  
 Client ID: CD10428SS30  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 11:10  
 Date Received: 10/06/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/13/22 08:45  
 Analyst: WR  
 Percent Solids: 82%

Extraction Method: EPA 3546  
 Extraction Date: 10/12/22 16:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	99	J	ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	27	J	ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-05  
 Client ID: CD10428SS30  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 11:10  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	47	J	ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	47	J	ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	49	J	ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	25	J	ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	93	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	84	J	ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	26.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	83.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	46	J	ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		25-120
Phenol-d6	61		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	52		30-120
2,4,6-Tribromophenol	52		10-136
4-Terphenyl-d14	38		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-06  
 Client ID: CD10428SS31  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 11:30  
 Date Received: 10/06/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/13/22 07:24  
 Analyst: WR  
 Percent Solids: 86%

Extraction Method: EPA 3546  
 Extraction Date: 10/12/22 16:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	260		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-06  
**Client ID:** CD10428SS31  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 11:30  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	140		ug/kg	110	22.	1
Benzo(a)pyrene	140	J	ug/kg	150	47.	1
Benzo(b)fluoranthene	130		ug/kg	110	32.	1
Benzo(k)fluoranthene	41	J	ug/kg	110	30.	1
Chrysene	110		ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	42	J	ug/kg	110	37.	1
Benzo(ghi)perylene	80	J	ug/kg	150	22.	1
Fluorene	19	J	ug/kg	190	18.	1
Phenanthrene	210		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	65	J	ug/kg	150	27.	1
Pyrene	320		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	440	25.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	ND		ug/kg	190	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	48		30-120
2,4,6-Tribromophenol	48		10-136
4-Terphenyl-d14	39		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-07  
 Client ID: CD10428SS32  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 11:55  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/13/22 07:07  
 Analyst: WR  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 10/12/22 16:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	20.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	31.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	140		ug/kg	110	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	27.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	30.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	510	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	62.	1
Butyl benzyl phthalate	ND		ug/kg	180	45.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	61.	1

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-07  
**Client ID:** CD10428SS32  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 11:55  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	180	16.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	86	J	ug/kg	110	20.	1
Benzo(a)pyrene	75	J	ug/kg	140	44.	1
Benzo(b)fluoranthene	72	J	ug/kg	110	30.	1
Benzo(k)fluoranthene	36	J	ug/kg	110	29.	1
Chrysene	78	J	ug/kg	110	18.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	34	J	ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	17.	1
Phenanthrene	52	J	ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	34	J	ug/kg	140	25.	1
Pyrene	130		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	23.	1
4-Chloroaniline	ND		ug/kg	180	32.	1
2-Nitroaniline	ND		ug/kg	180	34.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	74.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	210	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
Benzyl Alcohol	ND		ug/kg	180	55.	1
Carbazole	ND		ug/kg	180	17.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		25-120
Phenol-d6	64		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	57		30-120
2,4,6-Tribromophenol	57		10-136
4-Terphenyl-d14	48		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-08  
 Client ID: CD10428SS33  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 12:05  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270E  
 Analytical Date: 10/13/22 07:56  
 Analyst: WR  
 Percent Solids: 83%

Extraction Method: EPA 3546  
 Extraction Date: 10/12/22 16:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-08  
**Client ID:** CD10428SS33  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 12:05  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	26.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	83.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		25-120
Phenol-d6	64		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	54		30-120
2,4,6-Tribromophenol	58		10-136
4-Terphenyl-d14	43		18-120

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270E  
Analytical Date: 10/13/22 00:35  
Analyst: WR

Extraction Method: EPA 3546  
Extraction Date: 10/12/22 16:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatle Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1698612-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270E  
Analytical Date: 10/13/22 00:35  
Analyst: WR

Extraction Method: EPA 3546  
Extraction Date: 10/12/22 16:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1698612-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	21.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270E  
Analytical Date: 10/13/22 00:35  
Analyst: WR

Extraction Method: EPA 3546  
Extraction Date: 10/12/22 16:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1698612-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		25-120
Phenol-d6	48		10-120
Nitrobenzene-d5	49		23-120
2-Fluorobiphenyl	42		30-120
2,4,6-Tribromophenol	39		10-136
4-Terphenyl-d14	40		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1698612-2 WG1698612-3								
Acenaphthene	57		71		31-137	22		50
1,2,4-Trichlorobenzene	54		68		38-107	23		50
Hexachlorobenzene	52		63		40-140	19		50
Bis(2-chloroethyl)ether	55		69		40-140	23		50
2-Chloronaphthalene	53		65		40-140	20		50
1,2-Dichlorobenzene	53		68		40-140	25		50
1,3-Dichlorobenzene	52		64		40-140	21		50
1,4-Dichlorobenzene	51		65		28-104	24		50
3,3'-Dichlorobenzidine	49		69		40-140	34		50
2,4-Dinitrotoluene	69		84		40-132	20		50
2,6-Dinitrotoluene	62		75		40-140	19		50
Fluoranthene	58		70		40-140	19		50
4-Chlorophenyl phenyl ether	55		66		40-140	18		50
4-Bromophenyl phenyl ether	54		65		40-140	18		50
Bis(2-chloroisopropyl)ether	52		66		40-140	24		50
Bis(2-chloroethoxy)methane	58		74		40-117	24		50
Hexachlorobutadiene	48		60		40-140	22		50
Hexachlorocyclopentadiene	59		76		40-140	25		50
Hexachloroethane	61		74		40-140	19		50
Isophorone	57		72		40-140	23		50
Naphthalene	52		66		40-140	24		50
Nitrobenzene	66		80		40-140	19		50
NDPA/DPA	56		70		36-157	22		50

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1698612-2 WG1698612-3								
n-Nitrosodi-n-propylamine	55		71		32-121	25		50
Bis(2-ethylhexyl)phthalate	65		78		40-140	18		50
Butyl benzyl phthalate	69		84		40-140	20		50
Di-n-butylphthalate	62		74		40-140	18		50
Di-n-octylphthalate	68		80		40-140	16		50
Diethyl phthalate	57		70		40-140	20		50
Dimethyl phthalate	54		66		40-140	20		50
Benzo(a)anthracene	55		66		40-140	18		50
Benzo(a)pyrene	61		74		40-140	19		50
Benzo(b)fluoranthene	57		70		40-140	20		50
Benzo(k)fluoranthene	57		68		40-140	18		50
Chrysene	54		65		40-140	18		50
Acenaphthylene	59		73		40-140	21		50
Anthracene	55		67		40-140	20		50
Benzo(ghi)perylene	59		70		40-140	17		50
Fluorene	54		67		40-140	21		50
Phenanthrene	54		65		40-140	18		50
Dibenzo(a,h)anthracene	60		71		40-140	17		50
Indeno(1,2,3-cd)pyrene	64		76		40-140	17		50
Pyrene	58		70		35-142	19		50
Biphenyl	51		65		37-127	24		50
4-Chloroaniline	46		63		40-140	31		50
2-Nitroaniline	75		91		47-134	19		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1698612-2 WG1698612-3								
3-Nitroaniline	62		82		26-129	28		50
4-Nitroaniline	68		86		41-125	23		50
Dibenzofuran	54		67		40-140	21		50
2-Methylnaphthalene	54		68		40-140	23		50
1,2,4,5-Tetrachlorobenzene	49		62		40-117	23		50
Acetophenone	54		68		14-144	23		50
Benzyl Alcohol	60		73		40-140	20		50
Carbazole	57		69		54-128	19		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	62		80		25-120
Phenol-d6	63		78		10-120
Nitrobenzene-d5	71		87		23-120
2-Fluorobiphenyl	55		67		30-120
2,4,6-Tribromophenol	63		77		10-136
4-Terphenyl-d14	61		72		18-120

# PCBS



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

Lab ID: L2255415-03 D  
 Client ID: CD10428SS28  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 09:05  
 Date Received: 10/06/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 10/12/22 09:43  
 Analyst: MEO  
 Percent Solids: 83%

Extraction Method: EPA 3546  
 Extraction Date: 10/11/22 12:38  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 10/12/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 10/12/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.199	0.0177	5	A
Aroclor 1221	ND		mg/kg	0.199	0.0199	5	A
Aroclor 1232	ND		mg/kg	0.199	0.0422	5	A
Aroclor 1242	0.0292	J	mg/kg	0.199	0.0268	5	B
Aroclor 1248	ND		mg/kg	0.199	0.0298	5	A
Aroclor 1254	ND		mg/kg	0.199	0.0218	5	A
Aroclor 1260	ND		mg/kg	0.199	0.0368	5	A
Aroclor 1262	ND		mg/kg	0.199	0.0253	5	A
Aroclor 1268	ND		mg/kg	0.199	0.0206	5	A
PCBs, Total	0.0292	J	mg/kg	0.199	0.0177	5	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	50		30-150	A
Decachlorobiphenyl	32		30-150	A
2,4,5,6-Tetrachloro-m-xylene	48		30-150	B
Decachlorobiphenyl	38		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-05  
**Client ID:** CD10428SS30  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 11:10  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 10/12/22 09:53  
**Analyst:** MEO  
**Percent Solids:** 82%

**Extraction Method:** EPA 3546  
**Extraction Date:** 10/11/22 12:38  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 10/12/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 10/12/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		mg/kg	0.0398	0.00354	1	A
Aroclor 1221	ND		mg/kg	0.0398	0.00399	1	A
Aroclor 1232	ND		mg/kg	0.0398	0.00845	1	A
Aroclor 1242	0.0303	J	mg/kg	0.0398	0.00537	1	B
Aroclor 1248	ND		mg/kg	0.0398	0.00598	1	A
Aroclor 1254	ND		mg/kg	0.0398	0.00436	1	A
Aroclor 1260	ND		mg/kg	0.0398	0.00736	1	A
Aroclor 1262	ND		mg/kg	0.0398	0.00506	1	A
Aroclor 1268	ND		mg/kg	0.0398	0.00413	1	A
PCBs, Total	0.0303	J	mg/kg	0.0398	0.00354	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	31		30-150	A
Decachlorobiphenyl	27	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	35		30-150	B
Decachlorobiphenyl	30		30-150	B

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 10/12/22 08:15  
Analyst: MEO

Extraction Method: EPA 3546  
Extraction Date: 10/11/22 12:38  
Cleanup Method: EPA 3665A  
Cleanup Date: 10/12/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 10/12/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 03,05 Batch: WG1698013-1						
Aroclor 1016	ND		mg/kg	0.0324	0.00288	A
Aroclor 1221	ND		mg/kg	0.0324	0.00325	A
Aroclor 1232	ND		mg/kg	0.0324	0.00688	A
Aroclor 1242	ND		mg/kg	0.0324	0.00437	A
Aroclor 1248	ND		mg/kg	0.0324	0.00487	A
Aroclor 1254	ND		mg/kg	0.0324	0.00355	A
Aroclor 1260	ND		mg/kg	0.0324	0.00600	A
Aroclor 1262	ND		mg/kg	0.0324	0.00412	A
Aroclor 1268	ND		mg/kg	0.0324	0.00336	A
PCBs, Total	ND		mg/kg	0.0324	0.00288	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	69		30-150	B

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 03,05 Batch: WG1698013-2 WG1698013-3									
Aroclor 1016	59		66		40-140	11		50	A
Aroclor 1260	55		60		40-140	9		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		63		30-150	A
Decachlorobiphenyl	58		64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		80		30-150	B
Decachlorobiphenyl	70		77		30-150	B

## METALS

Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

## SAMPLE RESULTS

Lab ID: L2255415-01  
 Client ID: CD10428SS26  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 08:35  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil  
 Percent Solids: 73%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	8930		mg/kg	10.3	2.77	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Antimony, Total	0.606	J	mg/kg	5.14	0.390	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Arsenic, Total	10.1		mg/kg	1.03	0.214	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Barium, Total	126		mg/kg	1.03	0.179	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Beryllium, Total	0.698		mg/kg	0.514	0.034	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Cadmium, Total	0.565	J	mg/kg	1.03	0.101	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Calcium, Total	4270		mg/kg	10.3	3.60	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Chromium, Total	7.99		mg/kg	1.03	0.099	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Cobalt, Total	4.05		mg/kg	2.05	0.170	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Copper, Total	11.6		mg/kg	1.03	0.265	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Iron, Total	32800		mg/kg	5.14	0.928	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Lead, Total	2.61	J	mg/kg	5.14	0.275	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Magnesium, Total	526		mg/kg	10.3	1.58	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Manganese, Total	79.7		mg/kg	1.03	0.163	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Mercury, Total	0.065	J	mg/kg	0.086	0.056	1	10/11/22 08:15	10/11/22 12:08	EPA 7471B	1,7471B	ZK
Nickel, Total	16.7		mg/kg	2.57	0.248	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Potassium, Total	645		mg/kg	257	14.8	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Selenium, Total	0.349	J	mg/kg	2.05	0.265	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	1.03	0.291	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Sodium, Total	283		mg/kg	205	3.24	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	2.05	0.324	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Vanadium, Total	326		mg/kg	1.03	0.208	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC
Zinc, Total	9.73		mg/kg	5.14	0.301	2	10/11/22 10:45	10/12/22 16:07	EPA 3050B	1,6010D	MC



Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

## SAMPLE RESULTS

Lab ID: L2255415-02

Date Collected: 10/05/22 08:50

Client ID: CD10428SS27

Date Received: 10/06/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	11200		mg/kg	9.30	2.51	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Antimony, Total	0.893	J	mg/kg	4.65	0.354	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Arsenic, Total	6.71		mg/kg	0.930	0.194	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Barium, Total	90.5		mg/kg	0.930	0.162	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Beryllium, Total	0.595		mg/kg	0.465	0.031	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Cadmium, Total	0.502	J	mg/kg	0.930	0.091	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Calcium, Total	18700		mg/kg	9.30	3.26	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Chromium, Total	15.3		mg/kg	0.930	0.089	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Cobalt, Total	10.5		mg/kg	1.86	0.154	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Copper, Total	23.9		mg/kg	0.930	0.240	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Iron, Total	24500		mg/kg	4.65	0.840	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Lead, Total	13.5		mg/kg	4.65	0.249	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Magnesium, Total	7310		mg/kg	9.30	1.43	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Manganese, Total	413		mg/kg	0.930	0.148	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Mercury, Total	ND		mg/kg	0.078	0.051	1	10/11/22 08:15	10/11/22 12:18	EPA 7471B	1,7471B	ZK
Nickel, Total	22.2		mg/kg	2.32	0.225	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Potassium, Total	1230		mg/kg	232	13.4	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Selenium, Total	ND		mg/kg	1.86	0.240	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.930	0.263	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Sodium, Total	113	J	mg/kg	186	2.93	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.86	0.293	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Vanadium, Total	20.0		mg/kg	0.930	0.189	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC
Zinc, Total	56.1		mg/kg	4.65	0.272	2	10/11/22 10:45	10/12/22 15:51	EPA 3050B	1,6010D	MC



Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

## SAMPLE RESULTS

Lab ID: L2255415-05

Date Collected: 10/05/22 11:10

Client ID: CD10428SS30

Date Received: 10/06/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	10400		mg/kg	9.38	2.53	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Antimony, Total	1.08	J	mg/kg	4.69	0.356	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Arsenic, Total	10.6		mg/kg	0.938	0.195	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Barium, Total	130		mg/kg	0.938	0.163	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Beryllium, Total	0.675		mg/kg	0.469	0.031	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Cadmium, Total	0.647	J	mg/kg	0.938	0.092	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Calcium, Total	11400		mg/kg	9.38	3.28	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Chromium, Total	13.9		mg/kg	0.938	0.090	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Cobalt, Total	7.95		mg/kg	1.88	0.156	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Copper, Total	18.3		mg/kg	0.938	0.242	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Iron, Total	32000		mg/kg	4.69	0.847	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Lead, Total	11.1		mg/kg	4.69	0.251	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Magnesium, Total	3720		mg/kg	9.38	1.44	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Manganese, Total	272		mg/kg	0.938	0.149	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Mercury, Total	0.065	J	mg/kg	0.076	0.050	1	10/11/22 08:15	10/11/22 12:23	EPA 7471B	1,7471B	ZK
Nickel, Total	16.9		mg/kg	2.34	0.227	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Potassium, Total	967		mg/kg	234	13.5	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Selenium, Total	0.572	J	mg/kg	1.88	0.242	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.938	0.265	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Sodium, Total	219		mg/kg	188	2.95	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.88	0.295	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Vanadium, Total	19.5		mg/kg	0.938	0.190	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC
Zinc, Total	35.3		mg/kg	4.69	0.275	2	10/11/22 10:45	10/12/22 15:56	EPA 3050B	1,6010D	MC





Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

## SAMPLE RESULTS

Lab ID: L2255415-06

Date Collected: 10/05/22 11:30

Client ID: CD10428SS31

Date Received: 10/06/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	5450		mg/kg	9.03	2.44	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Antimony, Total	0.578	J	mg/kg	4.52	0.343	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Arsenic, Total	3.82		mg/kg	0.903	0.188	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Barium, Total	29.9		mg/kg	0.903	0.157	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Beryllium, Total	0.271	J	mg/kg	0.452	0.030	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Cadmium, Total	0.307	J	mg/kg	0.903	0.089	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Calcium, Total	11500		mg/kg	9.03	3.16	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Chromium, Total	8.94		mg/kg	0.903	0.087	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Cobalt, Total	6.18		mg/kg	1.81	0.150	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Copper, Total	11.5		mg/kg	0.903	0.233	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Iron, Total	14500		mg/kg	4.52	0.816	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Lead, Total	8.98		mg/kg	4.52	0.242	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Magnesium, Total	4530		mg/kg	9.03	1.39	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Manganese, Total	302		mg/kg	0.903	0.144	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Mercury, Total	ND		mg/kg	0.073	0.048	1	10/11/22 08:15	10/11/22 12:27	EPA 7471B	1,7471B	ZK
Nickel, Total	12.6		mg/kg	2.26	0.219	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Potassium, Total	461		mg/kg	226	13.0	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Selenium, Total	ND		mg/kg	1.81	0.233	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.903	0.256	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Sodium, Total	45.2	J	mg/kg	181	2.85	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.81	0.285	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Vanadium, Total	11.0		mg/kg	0.903	0.183	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC
Zinc, Total	37.3		mg/kg	4.52	0.265	2	10/11/22 10:45	10/12/22 16:02	EPA 3050B	1,6010D	MC



Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

## SAMPLE RESULTS

Lab ID: L2255415-07

Date Collected: 10/05/22 11:55

Client ID: CD10428SS32

Date Received: 10/06/22

Sample Location: BEACON ISLAND, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	4850		mg/kg	8.39	2.26	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Antimony, Total	0.453	J	mg/kg	4.20	0.319	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Arsenic, Total	2.67		mg/kg	0.839	0.174	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Barium, Total	29.3		mg/kg	0.839	0.146	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Beryllium, Total	0.226	J	mg/kg	0.420	0.028	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Cadmium, Total	0.252	J	mg/kg	0.839	0.082	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Calcium, Total	6100		mg/kg	8.39	2.94	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Chromium, Total	7.26		mg/kg	0.839	0.081	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Cobalt, Total	5.34		mg/kg	1.68	0.139	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Copper, Total	8.29		mg/kg	0.839	0.216	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Iron, Total	12000		mg/kg	4.20	0.758	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Lead, Total	10.3		mg/kg	4.20	0.225	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Magnesium, Total	3360		mg/kg	8.39	1.29	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Manganese, Total	239		mg/kg	0.839	0.133	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Mercury, Total	ND		mg/kg	0.069	0.045	1	10/11/22 08:15	10/11/22 12:30	EPA 7471B	1,7471B	ZK
Nickel, Total	10.3		mg/kg	2.10	0.203	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Potassium, Total	366		mg/kg	210	12.1	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Selenium, Total	ND		mg/kg	1.68	0.216	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.839	0.237	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Sodium, Total	41.2	J	mg/kg	168	2.64	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.68	0.264	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Vanadium, Total	9.35		mg/kg	0.839	0.170	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC
Zinc, Total	34.3		mg/kg	4.20	0.246	2	10/11/22 10:45	10/12/22 16:42	EPA 3050B	1,6010D	MC



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02,05-07 Batch: WG1697771-1									
Mercury, Total	ND	mg/kg	0.083	0.054	1	10/11/22 08:15	10/11/22 11:48	1,7471B	ZK

### Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02,05-07 Batch: WG1697776-1									
Aluminum, Total	ND	mg/kg	4.00	1.08	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Antimony, Total	ND	mg/kg	2.00	0.152	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Arsenic, Total	ND	mg/kg	0.400	0.083	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Barium, Total	ND	mg/kg	0.400	0.070	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Beryllium, Total	ND	mg/kg	0.200	0.013	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Cadmium, Total	ND	mg/kg	0.400	0.039	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Calcium, Total	ND	mg/kg	4.00	1.40	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Chromium, Total	ND	mg/kg	0.400	0.038	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Cobalt, Total	ND	mg/kg	0.800	0.066	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Copper, Total	ND	mg/kg	0.400	0.103	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Iron, Total	0.776 J	mg/kg	2.00	0.361	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Lead, Total	ND	mg/kg	2.00	0.107	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Magnesium, Total	ND	mg/kg	4.00	0.616	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Manganese, Total	ND	mg/kg	0.400	0.064	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Nickel, Total	ND	mg/kg	1.00	0.097	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Potassium, Total	ND	mg/kg	100	5.76	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Selenium, Total	ND	mg/kg	0.800	0.103	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Silver, Total	ND	mg/kg	0.400	0.113	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Sodium, Total	2.23 J	mg/kg	80.0	1.26	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Thallium, Total	ND	mg/kg	0.800	0.126	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Vanadium, Total	ND	mg/kg	0.400	0.081	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC
Zinc, Total	ND	mg/kg	2.00	0.117	1	10/11/22 10:45	10/12/22 15:41	1,6010D	MC



**Project Name:** BEACON ISLAND SITE

**Lab Number:** L2255415

**Project Number:** CD10428

**Report Date:** 10/13/22

## Method Blank Analysis Batch Quality Control

### Prep Information

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Digestion Method: EPA 3050B

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Lab Number:** L2255415

**Project Number:** CD10428

**Report Date:** 10/13/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,05-07 Batch: WG1697771-2 SRM Lot Number: D113-540								
Mercury, Total	107		-		60-140	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2255415

Project Number: CD10428

Report Date: 10/13/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,05-07 Batch: WG1697776-2 SRM Lot Number: D113-540					
Aluminum, Total	74	-	51-149	-	
Antimony, Total	163	-	20-250	-	
Arsenic, Total	96	-	70-130	-	
Barium, Total	87	-	75-125	-	
Beryllium, Total	88	-	75-125	-	
Cadmium, Total	90	-	75-125	-	
Calcium, Total	88	-	73-128	-	
Chromium, Total	93	-	70-130	-	
Cobalt, Total	94	-	75-125	-	
Copper, Total	96	-	75-125	-	
Iron, Total	91	-	36-164	-	
Lead, Total	92	-	72-128	-	
Magnesium, Total	87	-	63-138	-	
Manganese, Total	90	-	77-123	-	
Nickel, Total	92	-	70-130	-	
Potassium, Total	84	-	59-141	-	
Selenium, Total	96	-	66-134	-	
Silver, Total	95	-	70-131	-	
Sodium, Total	91	-	35-164	-	
Thallium, Total	92	-	70-130	-	
Vanadium, Total	94	-	74-126	-	

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Project Number:** CD10428

**Lab Number:** L2255415

**Report Date:** 10/13/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,05-07 Batch: WG1697776-2 SRM Lot Number: D113-540					
Zinc, Total	92	-	70-130	-	

**Matrix Spike Analysis**  
Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Total Metals - Mansfield Lab Associated sample(s): 01-02,05-07 QC Batch ID: WG1697771-3 QC Sample: L2256250-01 Client ID: MS Sample												
Mercury, Total	0.671	1.37	2.56	<b>137</b>	Q	-	-		80-120	-		20



## Matrix Spike Analysis Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,05-07    QC Batch ID: WG1697776-3    QC Sample: L2255415-01    Client ID: CD10428SS26									
Aluminum, Total	8930	213	11500	1200	Q	-	75-125	-	20
Antimony, Total	0.606J	53.4	42.0	79		-	75-125	-	20
Arsenic, Total	10.1	12.8	22.5	97		-	75-125	-	20
Barium, Total	126	213	327	94		-	75-125	-	20
Beryllium, Total	0.698	5.34	5.54	91		-	75-125	-	20
Cadmium, Total	0.565J	5.66	5.18	92		-	75-125	-	20
Calcium, Total	4270	1070	6060	168	Q	-	75-125	-	20
Chromium, Total	7.99	21.3	26.2	85		-	75-125	-	20
Cobalt, Total	4.05	53.4	43.9	75		-	75-125	-	20
Copper, Total	11.6	26.7	44.3	122		-	75-125	-	20
Iron, Total	32800	107	38400	5250	Q	-	75-125	-	20
Lead, Total	2.61J	56.6	49.8	88		-	75-125	-	20
Magnesium, Total	526	1070	1510	92		-	75-125	-	20
Manganese, Total	79.7	53.4	144	120		-	75-125	-	20
Nickel, Total	16.7	53.4	63.0	87		-	75-125	-	20
Potassium, Total	645	1070	1790	107		-	75-125	-	20
Selenium, Total	0.349J	12.8	10.2	80		-	75-125	-	20
Silver, Total	ND	32	26.9	84		-	75-125	-	20
Sodium, Total	283	1070	1310	96		-	75-125	-	20
Thallium, Total	ND	12.8	7.70	60	Q	-	75-125	-	20
Vanadium, Total	326	53.4	413	163	Q	-	75-125	-	20

**Matrix Spike Analysis**  
Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Limits</b>
Total Metals - Mansfield Lab Associated sample(s): 01-02,05-07 QC Batch ID: WG1697776-3 QC Sample: L2255415-01 Client ID: CD10428SS26									
Zinc, Total	9.73	53.4	80.0	132	Q	-	75-125	-	20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2255415

Report Date: 10/13/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,05-07 QC Batch ID: WG1697771-4 QC Sample: L2256250-01 Client ID: DUP Sample						
Mercury, Total	0.671	1.41	mg/kg	71	Q	20

### Lab Duplicate Analysis Batch Quality Control

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,05-07 QC Batch ID: WG1697776-4 QC Sample: L2255415-01 Client ID: CD10428SS26					
Aluminum, Total	8930	8960	mg/kg	0	20
Antimony, Total	0.606J	1.84J	mg/kg	NC	20
Arsenic, Total	10.1	13.6	mg/kg	30	Q 20
Barium, Total	126	68.5	mg/kg	59	Q 20
Beryllium, Total	0.698	0.715	mg/kg	2	20
Cadmium, Total	0.565J	1.29	mg/kg	NC	20
Calcium, Total	4270	4380	mg/kg	3	20
Chromium, Total	7.99	7.89	mg/kg	1	20
Cobalt, Total	4.05	4.11	mg/kg	1	20
Copper, Total	11.6	13.1	mg/kg	12	20
Iron, Total	32800	64300	mg/kg	65	Q 20
Lead, Total	2.61J	3.88J	mg/kg	NC	20
Magnesium, Total	526	772	mg/kg	38	Q 20
Manganese, Total	79.7	92.8	mg/kg	15	20
Nickel, Total	16.7	20.7	mg/kg	21	Q 20
Potassium, Total	645	610	mg/kg	6	20
Selenium, Total	0.349J	1.79J	mg/kg	NC	20
Silver, Total	ND	ND	mg/kg	NC	20
Sodium, Total	283	269	mg/kg	5	20



## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2255415

Report Date: 10/13/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,05-07 QC Batch ID: WG1697776-4 QC Sample: L2255415-01 Client ID: CD10428SS26					
Thallium, Total	ND	0.363J	mg/kg	NC	20
Vanadium, Total	326	363	mg/kg	11	20
Zinc, Total	9.73	15.1	mg/kg	43 Q	20

Project Name: BEACON ISLAND SITE

Project Number: CD10428

**Lab Serial Dilution  
Analysis  
Batch Quality Control**

Lab Number: L2255415

Report Date: 10/13/22

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,05-07 QC Batch ID: WG1697776-6 QC Sample: L2255415-01 Client ID: CD10428SS26						
Aluminum, Total	8930	9340	mg/kg	5		20
Barium, Total	126	132	mg/kg	5		20
Calcium, Total	4270	4710	mg/kg	10		20
Iron, Total	32800	35600	mg/kg	9		20
Magnesium, Total	526	605	mg/kg	15		20
Manganese, Total	79.7	86.1	mg/kg	8		20
Vanadium, Total	326	352	mg/kg	8		20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-01  
**Client ID:** CD10428SS26  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 08:35  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	73.2		%	0.100	NA	1	-	10/10/22 17:09	121,2540G	MF





**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-02  
**Client ID:** CD10428SS27  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 08:50  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	81.8		%	0.100	NA	1	-	10/10/22 17:09	121,2540G	MF



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-03  
**Client ID:** CD10428SS28  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 09:05  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	83.4		%	0.100	NA	1	-	10/10/22 17:09	121,2540G	MF



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-04  
**Client ID:** CD10428SS29  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 09:15  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	84.4		%	0.100	NA	1	-	10/10/22 17:09	121,2540G	MF



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-05  
**Client ID:** CD10428SS30  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 11:10  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	82.4		%	0.100	NA	1	-	10/10/22 17:09	121,2540G	MF



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-06  
**Client ID:** CD10428SS31  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 11:30  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	86.2		%	0.100	NA	1	-	10/10/22 17:09	121,2540G	MF



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-07  
**Client ID:** CD10428SS32  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 11:55  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	91.6		%	0.100	NA	1	-	10/10/22 17:09	121,2540G	MF



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255415  
**Report Date:** 10/13/22

**SAMPLE RESULTS**

**Lab ID:** L2255415-08  
**Client ID:** CD10428SS33  
**Sample Location:** BEACON ISLAND, NY

**Date Collected:** 10/05/22 12:05  
**Date Received:** 10/06/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	82.6		%	0.100	NA	1	-	10/10/22 17:09	121,2540G	MF



## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2255415

Report Date: 10/13/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1697675-1 QC Sample: L2249125-17 Client ID: DUP Sample						
Solids, Total	92.0	92.3	%	0		20



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

Serial\_No:10132215:47  
**Lab Number:** L2255415  
**Report Date:** 10/13/22

**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(*)
L2255415-01A	Vial Large Septa unpreserved (4oz)	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-01B	Glass 60ml unpreserved split	A	NA		2.3	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),ZN-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),PB-TI(180),CO-TI(180),V-TI(180),MG-TI(180),HG-T(28),MN-TI(180),FE-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L2255415-01C	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),TS(7)
L2255415-01X	Vial MeOH preserved split	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-01Y	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:01</b>	NYTCL-8260-R2(14)
L2255415-01Z	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:01</b>	NYTCL-8260-R2(14)
L2255415-02A	Vial Large Septa unpreserved (4oz)	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-02B	Glass 60ml unpreserved split	A	NA		2.3	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),CR-TI(180),SB-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),SE-TI(180),CO-TI(180),V-TI(180),MN-TI(180),MG-TI(180),HG-T(28),FE-TI(180),CD-TI(180),NA-TI(180),CA-TI(180),K-TI(180)
L2255415-02C	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),TS(7)
L2255415-02X	Vial MeOH preserved split	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-02Y	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:01</b>	NYTCL-8260-R2(14)
L2255415-02Z	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:01</b>	NYTCL-8260-R2(14)
L2255415-03A	Vial Large Septa unpreserved (4oz)	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-03B	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8082-PPM(365)
L2255415-03X	Vial MeOH preserved split	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-03Y	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)
L2255415-03Z	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)
L2255415-04A	Vial Large Septa unpreserved (4oz)	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)

\*Values in parentheses indicate holding time in days



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Serial\_No:** 10132215:47  
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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2255415-04B	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),TS(7)
L2255415-04X	Vial MeOH preserved split	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-04Y	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)
L2255415-04Z	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)
L2255415-05A	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),CR-TI(180),ZN-TI(180),SB-TI(180),PB-TI(180),CU-TI(180),SE-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MG-TI(180),HG-T(28),MN-TI(180),CD-TI(180),K-TI(180),CA-TI(180),NA-TI(180)
L2255415-05B	Vial Large Septa unpreserved (4oz)	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-05C	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8082-PPM(365)
L2255415-05X	Vial MeOH preserved split	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-05Y	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)
L2255415-05Z	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)
L2255415-06A	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),PB-TI(180),V-TI(180),CO-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CD-TI(180),CA-TI(180),K-TI(180),NA-TI(180)
L2255415-06B	Vial Large Septa unpreserved (4oz)	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-06C	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),TS(7)
L2255415-06X	Vial MeOH preserved split	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-06Y	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)
L2255415-06Z	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)
L2255415-07A	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),TL-TI(180),PB-TI(180),SB-TI(180),CU-TI(180),ZN-TI(180),SE-TI(180),V-TI(180),CO-TI(180),HG-T(28),MG-TI(180),MN-TI(180),FE-TI(180),K-TI(180),CD-TI(180),CA-TI(180),NA-TI(180)
L2255415-07B	Vial Large Septa unpreserved (4oz)	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-07C	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),TS(7)
L2255415-07X	Vial MeOH preserved split	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-07Y	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)

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**Lab Number:** L2255415  
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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2255415-07Z	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)
L2255415-08A	Vial Large Septa unpreserved (4oz)	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-08B	Glass 120ml/4oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),TS(7)
L2255415-08X	Vial MeOH preserved split	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L2255415-08Y	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)
L2255415-08Z	Vial Water preserved split	A	NA		2.3	Y	Absent	<b>11-OCT-22 06:28</b>	NYTCL-8260-R2(14)

\*Values in parentheses indicate holding time in days



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## 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.

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### 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

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#### **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.)

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## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## 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, NO<sub>2</sub>, NO<sub>3</sub>.

### 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, SM4500CI-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, **LCHAT 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.



Alpha

L2255415

No: 14331



# ATLANTIC TESTING LABORATORIES

## Environmental Chain-Of-Custody Record

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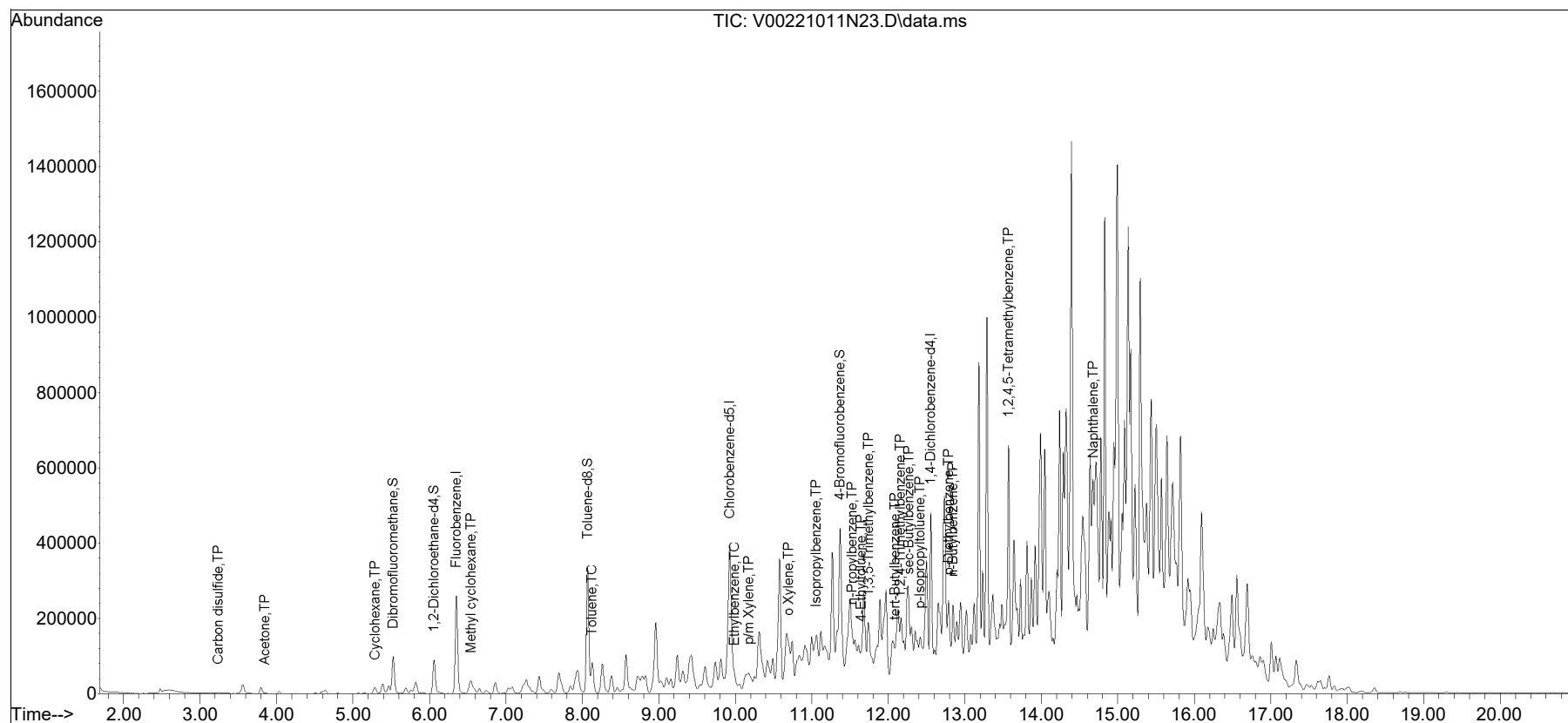
Project No.		Client Name		QA/QC Code		Parameters				Report Distribution	
CD10428		La Bella Associates		<input type="checkbox"/> NYSDEC <input type="checkbox"/> SW-846 <input type="checkbox"/> NYSDOH <input type="checkbox"/> CLP <input type="checkbox"/> Other _____		EPA 8260-VOC EPA 8270(BIN)-SVOC TAL Metals EPA 8082-PCB				TAT Required: <input type="checkbox"/> 6hr <input type="checkbox"/> 12hr <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input checked="" type="checkbox"/> 5day <input type="checkbox"/> 10day <input type="checkbox"/> Other _____	
Page 1 of 1		ATL Project Contact: Chayenne Dashnaw		Project Location: Beacon Island, NY		E-mail Results: cdashnaw@atlantictesting.com		Laboratory Sample ID No.		Custody Seal: X= Intact	
Date	Time	Field Sample No.	Sample Location	Sample Type	No. of Containers	Notes					
10/5/22	08:35	CD104285526	B-18 0.5-2.5	S, G	2	X X X					
10/5/22	08:50	CD104285527	B-18 2.5-5	S, G	2	X X X					
10/5/22	09:05	CD104285528	B-19 2-4	S, G	2	X X X					
10/5/22	09:15	CD104285529	B-19 6-8	S, G	2	X X X					
10/5/22	11:10	CD104285530	B-23 2-4	S, G	3	X X X X					
10/5/22	11:30	CD104285531	B-24 1-3.5	S, G	3	X X X					
10/5/22	11:55	CD104285532	B-25 0.5-3	S, G	3	X X X					
10/5/22	12:05	CD104285533	B-25 4-6	S, G	2	X X					
Samplers Name: Chayenne J. Dashnaw		Date: 10/5/22		Received for Name:		Date:		Shipment Rec'd Intact?		<input type="checkbox"/> YES <input type="checkbox"/> NO	
Samplers Signature: <i>[Signature]</i>		Time: 12:30		Laboratory Signature:		Time:					
Samples Relinquished By:				Samples Received By:				Sample Type Code Key:		Laboratory Remarks	
Name: Chayenne J. Dashnaw	Date: 10/6/22	Name: AAL Chris Steble	Date: 10/6/22	Description		Matrix					
Signature: <i>[Signature]</i>	Time: 09:15	Signature: <i>[Signature]</i>	Time: 1318	C Composite	O QA/QC	G Grab	O Other				
Name: Chris Steble	Date: 10/6/22	Name: Shannon Hoffman	Date: 10/7/22	DW Drinking Water	S Soil	GW Groundwater	SL Sludge				
Signature: <i>[Signature]</i>	Time: 1318	Signature: <i>[Signature]</i>	Time: 0010	WW Wastewater	WS Solid Waste	SM Stormwater	B Bulk				
				O Oil	WP Wipe	L Liquid	A Air				

## Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA100\2022\221011N\  
 Data File : V00221011N23.D  
 Acq On : 12 Oct 2022 5:21 am  
 Operator : VOA100:JIC  
 Sample : 12255415-03,31H,5.26,5,0.100,,x,r3e  
 Misc : WG1698383,ICAL19219  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 12 11:18:54 2022  
 Quant Method : I:\VOLATILES\VOA100\2022\221011N\V100\_220802N\_8260.m  
 Quant Title : VOLATILES BY GC/MS  
 QLast Update : Wed Aug 03 07:08:57 2022  
 Response via : Initial Calibration

Sub List : 8260-CurveSoil - Megamix plus Diox1N\V00221011N01.D•



**ATTACHMENT D**  
**SUMMARY OF LABORATORY RESULTS**

**Table D-1  
Beacon Island Site  
Summary of Laboratory Analysis Results- VOC  
Soil Samples Collected October 4 and 5, 2022**

Sample Location	Boring B-12	Boring B-12	Boring B-13	Boring B-14	Boring B-14	Boring B-18	Boring B-18	Boring B-19	Boring B-19	Boring B-23	Boring B-24	Boring B-25	Boring B-25	6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level
Sample ID	CD10428SS20	CD10428SS21	CD10428SS23	CD10428SS24	CD10428SS25	CD10428SS26	CD10428SS27	CD10428SS28	CD10428SS29	CD10428SS30	CD10428SS31	CD10425SS32	CD10425SS33			
Sample Depth*	0.5'-1'	1'-4'	0'-2'	0.5'-4'	6'-8'	0.5'-2.5'	2.5'-5'	2'-4'	6'-8'	2'-4'	1'-3.5'	0.5'-3'	4'-6'			
VOC(ppm)																
Acetone	0.012	0.012	ND	ND	0.031	ND	<b>0.092</b>	ND	0.11	<b>0.064</b>	0.021	ND	ND	0.05	500	1,000
2-Butanone	ND	ND	ND	ND	ND	ND	0.0026	ND	ND	ND	ND	ND	ND	100	---	---
Benzene	ND	ND	0.00024	0.1	ND	ND	ND	ND	0.00024	ND	ND	ND	ND	0.06	44	89
Toluene	ND	ND	ND	0.072	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	500	1,000
Ethylbenzene	ND	ND	0.00015	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	30	390	780
Xylenes	ND	ND	ND	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	500	1,000
Naphthalene	0.00092	ND	ND	7.9	ND	ND	ND	0.11	ND	ND	ND	ND	ND	12	500	1,000
n-Butylbenzene	ND	ND	ND	1.8	ND	ND	ND	0.24	ND	ND	ND	ND	ND	12	---	---
sec-Butylbenzene	ND	ND	ND	0.87	ND	ND	ND	0.26	ND	ND	ND	ND	ND	11	500	1,000
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	0.015	ND	ND	ND	ND	ND	100	500	1,000
Isopropylbenzene	ND	ND	ND	0.97	ND	ND	ND	0.16	ND	ND	ND	ND	ND	100	---	---
p-Isopropyltoluene	ND	ND	ND	1.2	ND	ND	ND	0.031	ND	ND	ND	ND	ND	10	---	---
n-Propylbenzene	ND	ND	ND	2.4	ND	ND	ND	0.16	ND	ND	ND	ND	ND	3.9	---	---
p-Diethylbenzene	0.00038	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
1,3,5-Trimethylbenzene	ND	ND	ND	4.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	47	190	380
1,2,4-Trimethylbenzene	ND	ND	ND	23	ND	ND	ND	0.037	ND	ND	ND	ND	ND	47	190	380
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	0.09	ND	ND	ND	ND	ND	---	---	---
Methyl cyclohexane	ND	ND	ND	ND	ND	ND	ND	0.18	ND	ND	ND	ND	ND	---	---	---
p-Ethyltoluene	ND	ND	ND	7.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
1,2,4,5-Tetramethylbenzene	0.00078	ND	ND	4.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
Ethyl ether	ND	0.00067	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---

**NOTES:**  
Samples collected as grab samples from selected boring locations.  
See Sample Location Plan in Appendix C.  
\*= Depth in feet below existing ground surface.  
Samples collected by representatives of Atlantic Testing Laboratories, Limited on October 4 and 5, 2022, and analyzed by Alpha Analytical, Inc. (NYSDOH ELAP No. 11148).  
Copies of the laboratory report and sample custody documentation are contained in Appendix B.  
ppm= parts per millions  
VOC= volatile organic compounds  
ND= Not detectable above laboratory method detection limit  
NYSDEC Unrestricted Use Soil Cleanup Levels were obtained from 6 NYCRR Part 375 (Unrestricted Use Soil Cleanup Objectives) or the NYSDEC Final Commissioner Policy, CP-51, dated October 21, 2010 (most restrictive of available standards for Supplemental Soil Cleanup Objectives).  
NYSDEC Commercial Soil Cleanup Levels and Industrial Soil Cleanup Levels were obtained from the corresponding standards listed in 6 NYCRR Part 375 or NYSDEC CP-51.  
Values in bold exceed the NYSDEC Unrestricted Use Soil Cleanup Levels. Values in bold and italics exceed the NYSDEC General Fill Material Beneficial Use Criteria.

**Table D-2  
Beacon Island Site  
Summary of Laboratory Analysis Results-Semi-VOC, PCB, Pesticides, and Metals  
Soil Samples Collected October 4, 2022**

Sample Location	Boring B-1	Boring B-1	Boring B-1A	Boring B-1A	Boring B-3	Boring B-3	Boring B-3	Boring B-5	Boring B-5	Boring B-5	Boring B-6	6NYCRR Part 375/NYSDEC CP- 51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP- 360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP- 360 Industrial Soil Cleanup Level
Sample Date	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022			
Sample ID	CD10428SS01	CD10428SS02	CD10428SS03	CD10428SS04	CD10428SS05	CD10428SS06	CD10428SS07	CD10428SS08	CD10428SS09	CD10428SS10	CD10428SS11			
Sample Depth*	0'-2'	2'-4'	4'-7'	7'-8'	0'-2'	2'-4'	4'-8'	0'-2'	2'-4'	4'-8'	0'-1'			
<b>Semi-VOC(ppm)</b>														
Benzo(ghi)perylene	0.034	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	500	1,000
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
<b>PCB(ppm)</b>														
Total PCB	0.037	0.0439	0.0401	0.0603	0.0209	0.00724	0.00691	0.0680	0.0247	0.00905	0.00798	0.1	1	25
<b>Pesticides (ppm)</b>														
4,4'- DDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000677	ND	0.0033	62	120
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
<b>TAL Metals (ppm)</b>														
Aluminum	<b>10,300</b>	<b>12,400</b>	9,860	<b>13,400</b>	9,520	<b>9,450</b>	<b>11,200</b>	<b>10,600</b>	<b>10,300</b>	<b>12,900</b>	9,370	10,000	---	---
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	---	---
Arsenic	<b>37.6</b>	<b>44.3</b>	<b>34.4</b>	<b>43.8</b>	<b>31.2</b>	<b>30</b>	<b>30.5</b>	<b>29.5</b>	<b>34.9</b>	<b>54.9</b>	<b>32.9</b>	13	16	16
Barium	271	<b>354</b>	349	<b>529</b>	332	342	<b>365</b>	267	<b>371</b>	<b>475</b>	273	350	400	10,000
Beryllium	1.65	1.73	1.76	1.7	1.02	0.969	1.24	1.50	1.4	1.63	0.961	7.2	590	2,700
Cadmium	0.483	0.444	0.524	0.611	1.29	1.22	0.666	0.628	0.9	0.921	1.22	2.5	9.3	60
Calcium	4,420	5,940	7,710	9,340	8,690	<b>11,600</b>	<b>14,800</b>	2,830	5,650	8,520	6,760	10,000	---	---
Chromium	16.9	19.3	16.9	20.8	12.6	13.6	15.6	19.1	15.8	18.6	12.5	30	1,500	6,800
Cobalt	6.82	5.92	6.12	7.03	6.61	7.25	5.85	11	7.38	7.53	6.52	20	---	---
Copper	16.4	15.8	17.5	22.7	11.4	13.1	12	29.7	19.8	19.9	12.7	50	270	10,000
Iron	<b>16,500</b>	<b>16,200</b>	<b>19,700</b>	<b>21,600</b>	<b>84,200</b>	<b>75,600</b>	<b>30,500</b>	<b>20,800</b>	<b>44,000</b>	<b>38,600</b>	<b>75,800</b>	2,000	---	---
Lead	9	8.47	8.04	10.2	3.59	3.43	5.48	8.88	4.52	7.35	3.11	63	1,000	3,900
Magnesium	1,340	1,790	969	1,250	999	1,010	1,380	1,220	1,040	1,420	1,270	---	---	---
Manganese	88.5	60.8	50.2	54.9	134	112	81.4	133	77.1	77.5	117	1,600	10,000	10,000
Mercury	<b>0.205</b>	0.127	<b>0.226</b>	<b>0.233</b>	0.066	0.078	0.095	0.170	0.171	0.156	0.056	0.18	2.8	5.7
Nickel	<b>157</b>	13	<b>13.5</b>	15.4	14.8	15.7	12.4	<b>232</b>	<b>186</b>	<b>150</b>	15.7	30	310	10,000
Potassium	785	985	738	1,120	724	628	631	845	750	942	608	---	---	---
Selenium	ND	0.721	0.963	2.12	0.810	1.14	1.51	ND	1.02	1.37	0.685	3.9	1,500	6,800
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	1,500	6,800
Sodium	328	463	351	649	253	249	412	227	345	524	235	---	---	---
Thallium	ND	ND	ND	ND	ND	0.333	ND	ND	ND	ND	ND	5	---	---
Vanadium	<b>1,110</b>	<b>1,140</b>	<b>1,100</b>	<b>1,120</b>	30.2	29.5	27.8	<b>1,020</b>	<b>172</b>	<b>247</b>	<b>60.1</b>	39	---	---
Zinc	22.6	20.6	22.1	26	14.4	15	16.3	37.7	18.5	22.4	13	109	10,000	10,000

**Table D-2 (Continued)**  
**Beacon Island Site**  
**Summary of Laboratory Analysis Results-Semi-VOC, PCB, Pesticides, and Metals**  
**Soil Samples Collected October 4, 2022**

Sample Location	Boring B-6	Boring B-6	Boring B-8	Boring B-8	Boring B-8	Boring B-11	Boring B-11	Boring B-11	Boring B-12	Boring B-12	Boring B-12	6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level
Sample Date	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022			
Sample ID	CD10428SS12	CD10428SS13	CD10428SS14	CD10428SS15	CD10428SS16	CD10428SS17	CD10428SS18	CD10428SS19	CD10428SS20	CD10428SS21	CD10428SS22			
Sample Depth*	2'-4'	4'-8'	0'-2'	2'-4'	4'-8'	0'-1'	1'-4'	4'-8'	0.5'-1'	1'-4'	4'-8'			
<b>Semi-VOC(ppm)</b>														
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	0.67	ND	0.047	100	500	1,000
Fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	9.8	0.13	0.98	100	500	1,000
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	0.36	ND	0.029	12	500	1,000
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	4.8	0.06	0.4	1	5.6	11
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	4.1	ND	0.35	1	1	1.1
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	5.2	0.059	0.46	1	5.6	11
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	0.14	0.8	56	110
Chrysene	ND	ND	ND	ND	ND	ND	ND	ND	4.5	0.052	0.4	1	56	110
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	0.07	ND	ND	20	500	1,000
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	0.11	100	500	1,000
Benzo(ghi)perylene	ND	ND	ND	ND	ND	ND	ND	ND	2.2	0.029	0.22	100	500	1,000
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	0.61	ND	0.051	100	500	1,000
Phenanthrene	ND	ND	ND	ND	ND	ND	ND	ND	6.6	0.08	0.58	100	500	1,000
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	0.48	ND	0.048	0.33	0.56	1.1
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	2.6	0.034	0.25	0.5	5.6	11
Pyrene	ND	ND	ND	ND	ND	ND	ND	ND	8.2	0.11	0.84	100	500	1,000
Biphenyl	ND	ND	ND	ND	ND	ND	ND	ND	0.053	ND	ND	60	---	---
Dibenzofuran	ND	ND	ND	ND	ND	ND	ND	ND	0.38	ND	0.028	14	500	1,000
Carbazole	ND	ND	ND	ND	ND	ND	ND	ND	0.91	ND	0.088	---	---	---
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	0.5	ND	ND	0.41	---	---
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
<b>PCB(ppm)</b>														
Total PCB	ND	0.0212	0.00991	0.00916	0.0697	0.0455	0.00975	0.0277	0.00803	0.0630	0.0264	0.1	1	25
<b>Pesticides (ppm)</b>														
4,4'- DDE	ND	0.000772	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0033	62	120
4,4'- DDD	ND	ND	ND	ND	ND	ND	ND	ND	0.000743	ND	ND	0.0033	92	180
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---

**Table D-2 (Continued)**  
**Beacon Island Site**  
**Summary of Laboratory Analysis Results-Semi-VOC, PCB, Pesticides, and Metals**  
**Soil Samples Collected October 4, 2022**

Sample Location	Boring B-6	Boring B-6	Boring B-8	Boring B-8	Boring B-8	Boring B-11	Boring B-11	Boring B-11	Boring B-12	Boring B-12	Boring B-12	6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level
Sample Date	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022			
Sample ID	CD10428SS12	CD10428SS13	CD10428SS14	CD10428SS15	CD10428SS16	CD10428SS17	CD10428SS18	CD10428SS19	CD10428SS20	CD10428SS21	CD10428SS22			
Sample Depth*	2'-4'	4'-8'	0'-2'	2'-4'	4'-8'	0'-1'	1'-4'	4'-8'	0.5'-1'	1'-4'	4'-8'			
<b>TAL Metals (ppm)</b>														
Aluminum	9,350	<b>10,800</b>	8,680	9,300	5,650	9,210	9,900	8,400	9,810	8,250	7,980	10,000	---	---
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	---	---
Arsenic	<b>37.6</b>	<b>63</b>	<b>46.3</b>	<b>35.2</b>	<b>34.9</b>	<b>56.4</b>	<b>34.3</b>	<b>42.3</b>	9.83	5.67	4.96	13	16	16
Barium	318	<b>467</b>	292	235	328	272	334	330	111	71.4	72.2	350	400	10,000
Beryllium	1.02	1.54	1.41	0.908	1.05	1.38	0.884	1.42	0.650	0.467	0.474	7.2	590	2,700
Cadmium	0.705	0.739	0.705	1.27	0.746	0.557	1.04	0.580	0.624	0.467	0.451	2.5	9.3	60
Calcium	5,270	<b>13,200</b>	4,440	<b>13,600</b>	4,260	4,900	5,570	7,340	<b>12,200</b>	<b>13,000</b>	<b>12,900</b>	10,000	---	---
Chromium	11.3	21.7	17.9	13.2	13.7	15.4	13.9	14.7	10.8	13.8	11.8	30	1,500	6,800
Cobalt	5.55	6.65	9.45	6.87	4.84	5.68	8.35	5.68	7.62	8.05	7.29	20	---	---
Copper	12.7	28.3	16.7	13	11.7	14.8	16.9	13.8	16.5	14.8	16.4	50	270	10,000
Iron	<b>31,800</b>	<b>26,000</b>	<b>30,200</b>	<b>73,200</b>	<b>34,200</b>	<b>20,700</b>	<b>47,700</b>	<b>22,000</b>	<b>28,400</b>	<b>24,200</b>	<b>22,700</b>	2,000	---	---
Lead	4.82	9.92	7.72	2.91	4.04	8.11	6.31	7.09	14.7	9.39	12.8	63	1,000	3,900
Magnesium	1,140	1,090	1,480	1,260	582	1,260	2,190	855	3,880	5,820	5,120	---	---	---
Manganese	68.1	89.3	96.7	126	61.3	91.7	552	44.2	290	327	254	1,600	10,000	10,000
Mercury	0.139	0.173	0.148	0.082	0.089	0.178	ND	0.176	0.051	ND	ND	0.18	2.8	5.7
Nickel	12.2	17.6	<b>352</b>	19.1	12	21.2	20.6	12.2	18.5	17	17.2	30	310	10,000
Potassium	569	863	759	647	481	902	704	666	909	806	679	---	---	---
Selenium	0.321	0.802	ND	1.74	1.05	ND	0.841	0.712	0.442	ND	ND	3.9	1,500	6,800
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	1,500	6,800
Sodium	207	327	221	217	110	216	187	211	195	109	97.3	---	---	---
Thallium	0.524	0.401	ND	ND	ND	ND	0.535	ND	ND	ND	ND	5	---	---
Vanadium	<b>48.2</b>	38.7	<b>1,580</b>	<b>401</b>	<b>174</b>	<b>87.4</b>	<b>46.4</b>	33.4	38.9	16	17	39	---	---
Zinc	15.5	32.4	20.2	13.3	20.9	23.7	26.4	22.4	35.3	46.3	46.8	109	10,000	10,000

**Table D-2 (Continued)**  
**Beacon Island Site**  
**Summary of Laboratory Analysis Results-Semi-VOC, PCB, Pesticides, and Metals**  
**Soil Samples Collected October 5, 2022**

Sample Location	Boring B-18	Boring B-18	Boring B-19	Boring B-19	Boring B-23	Boring B-24	Boring B-25	Boring B-25	6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP- 360 Industrial Soil Cleanup Level
Sample Date	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022			
Sample ID	CD10428SS26	CD10428SS27	CD10428SS28	CD10428SS29	CD10428SS30	CD10428SS31	CD10428SS32	CD10428SS33			
Sample Depth*	0.5'-2.5'	2.5'-5'	2'-4'	6'-8'	2'-4'	1'-3.5'	0.5'-3'	4'-6'			
<b>Semi-VOC(ppm)</b>											
Acenaphthene	ND	ND	1	ND	ND	ND	ND	ND	100	500	1,000
Fluoranthene	0.43	ND	ND	ND	0.099	0.26	0.14	ND	100	500	1,000
Naphthalene	ND	ND	0.98	ND	0.027	ND	ND	ND	12	500	1,000
Benzo(a)anthracene	0.19	ND	ND	ND	0.047	0.14	0.086	ND	1	5.6	11
Benzo(a)pyrene	ND	ND	ND	ND	ND	0.14	0.075	ND	1	1	1.1
Benzo(b)fluoranthene	0.26	ND	ND	ND	0.047	0.13	0.072	ND	1	5.6	11
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	0.041	0.036	ND	0.8	56	110
Benzo(ghi)perylene	0.14	ND	ND	ND	0.025	0.08	0.034	ND	100	500	1,000
Chrysene	0.19	ND	0.47	ND	0.049	0.11	0.078	ND	1	56	110
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	20	500	1,000
Anthracene	ND	ND	0.4	ND	ND	0.042	ND	ND	100	500	1,000
Benzo(ghi)perylene	ND	ND	ND	ND	ND	0.08	ND	ND	100	500	1,000
Fluorene	ND	ND	1.1	ND	ND	0.019	ND	ND	100	500	1,000
Phenanthrene	0.3	ND	2.8	ND	0.093	0.21	0.052	ND	100	500	1,000
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	0.33	0.56	1.1
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	0.065	0.034	ND	0.5	5.6	11
Pyrene	0.38	ND	0.57	ND	0.084	0.32	0.13	ND	100	500	1,000
Biphenyl	ND	ND	0.26	ND	ND	ND	ND	ND	60	---	---
Dibenzofuran	ND	ND	ND	ND	ND	ND	ND	ND	14	500	1,000
Carbazole	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
2-Methylnaphthalene	0.15	ND	8.4	ND	0.046	ND	ND	ND	0.41	---	---
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
Benzo(ghi)perylene		ND	ND	ND	ND	ND	ND	ND	100	500	1,000
Fluoranthene	0.43										
All Other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---
<b>PCB(ppm)</b>											
Total PCB	NA	NA	0.0292	NA	0.0303	NA	NA	NA	0.1	1	25
<b>Pesticides (ppm)</b>											
All Other Target Compounds	NA	NA	NA	NA	NA	NA	NA	NA	---	---	---



**Table D-2 (Continued)**  
**Beacon Island Site**  
**Summary of Laboratory Analysis Results-Semi-VOC, PCB, Pesticides, and Metals**  
**Soil Samples Collected October 5, 2022**

Sample Location	Boring B-18	Boring B-18	Boring B-19	Boring B-19	Boring B-23	Boring B-24	Boring B-25	Boring B-25	6NYCRR Part 375/NYSDEC CP-51 Unrestricted Use Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Commercial Soil Cleanup Level	6NYCRR Part 375/NYSDEC CP-360 Industrial Soil Cleanup Level
Sample Date	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022			
Sample ID	CD10428SS26	CD10428SS27	CD10428SS28	CD10428SS29	CD10428SS30	CD10428SS31	CD10428SS32	CD10428SS33			
Sample Depth*	0.5'-2.5'	2.5'-5'	2'-4'	6'-8'	2'-4'	1'-3.5'	0.5'-3'	4'-6'			
TAL Metals (ppm)											
Aluminum	8,930	11,200	NA	NA	10,400	5,450	4,850	NA	10,000	---	---
Antimony	0.606	0.893	NA	NA	1.08	0.578	0.453	NA	12	---	---
Arsenic	10.1	6.71	NA	NA	10.6	3.82	2.67	NA	13	16	16
Barium	126	90.5	NA	NA	130	29.9	29.3	NA	350	400	10,000
Beryllium	0.698	0.595	NA	NA	0.675	0.271	0.226	NA	7.2	590	2,700
Cadmium	0.565	0.502	NA	NA	0.647	0.307	0.252	NA	2.5	9.3	60
Calcium	4,270	18,700	NA	NA	11,400	11,500	6,100	NA	10,000	---	---
Chromium	7.99	15.3	NA	NA	13.9	8.94	7.26	NA	30	1,500	6,800
Cobalt	4.05	10.5	NA	NA	7.95	6.18	5.34	NA	20	---	---
Copper	11.6	23.9	NA	NA	18.3	11.5	8.29	NA	50	270	10,000
Iron	32,800	24,500	NA	NA	32,000	14,500	12,000	NA	2,000	---	---
Lead	2.61	13.5	NA	NA	11.1	8.98	10.3	NA	63	1,000	3,900
Magnesium	526	7,310	NA	NA	3,720	4,530	3,360	NA	---	---	---
Manganese	79.7	413	NA	NA	272	302	239	NA	1,600	10,000	10,000
Mercury	0.065	ND	NA	NA	0.065	ND	ND	NA	0.18	2.8	5.7
Nickel	16.7	22.2	NA	NA	16.9	12.6	10.3	NA	30	310	10,000
Potassium	645	1,230	NA	NA	967	461	366	NA	---	---	---
Selenium	0.349	ND	NA	NA	0.572	ND	ND	NA	3.9	1,500	6,800
Silver	ND	ND	NA	NA	ND	ND	ND	NA	2	1,500	6,800
Sodium	283	113	NA	NA	219	45.2	41.2	NA	---	---	---
Thallium	ND	ND	NA	NA	ND	ND	ND	NA	5	---	---
Vanadium	326	20	NA	NA	19.5	11	9.35	NA	39	---	---
Zinc	9.73	56.1	NA	NA	35.3	37.3	34.3	NA	109	10,000	10,000

**NOTES:**  
Samples collected as grab samples of designated section of the soil borings.  
Samples collected by representatives of Atlantic Testing Laboratories, Limited on October 4 and 5, 2022, and analyzed by Alpha Analytical, Inc. (NYSDOH ELAP No. 11148).  
Copies of the laboratory report and sample custody documentation are contained in Appendix C.  
\*= Depth in feet below ground surface  
Semi-VOC= semi-volatile organic compounds  
PCB= polychlorinated biphenyls  
TAL Metals= Target Analyte List Metals  
See Sample Location Plan in Appendix A.  
ppm = parts per million, or mg/kg.  
ND = Not detected above laboratory method detection limit  
NA = Not Applicable Regulated Level Under 6 NYCRR PART 375  
NYSDEC Unrestricted Use Soil Cleanup Levels were obtained from 6 NYCRR Part 375 (Unrestricted Use Soil Cleanup Objectives) or the NYSDEC Final Commissioner Policy, CP-51, dated October 21, 2010 (most restrictive of available standards for Supplemental Soil Cleanup Objectives). NYSDEC Commercial Soil Cleanup Levels and Industrial Soil Cleanup Levels were obtained from the corresponding standards listed in 6 NYCRR Part 375 or NYSDEC CP-51.



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

**Canton**  
6431 U.S. Highway 11  
Canton, NY 13617  
315-386-4578 (T)  
atlantictesting.com

October 17, 2022

LaBella Associates, D.P.C.  
4 British American Blvd  
Latham, New York 12110

Attn: Edward P. Larkin, P.E.

Re: Soil Vapor Sampling and Analysis  
Beacon Island Site  
Bethlehem, New York  
ATL Report No. CD10428CE-01-10-22

At the request of representatives of LaBella Associates, D.P.C. on behalf of the Port of Albany District Commission, and in accordance with Atlantic Testing Laboratories, Limited (ATL) contract number CD998-1905X-09-22, dated September 30, 2022, soil vapor sampling was performed at the subject site on October 5, 2022. The sampling and subsequent laboratory analysis were conducted to evaluate the presence or absence of volatile organic compounds (VOC) and methane in subsurface vapor for 8 locations at the Beacon Island site. A Soil Vapor Sampling Point Location Plan is included as Attachment A, and Soil Vapor Sampling Point Logs are included in Attachment B.

Eight soil vapor samples were collected in general accordance with New York State Department of Health (NYSDOH) guidelines. Samples were collected on October 5, 2022, and submitted for laboratory analysis by Alpha Analytical, 8 Walkup Drive, Westborough, Massachusetts, (NYSDOH ELAP No. 11148). During the sampling event, photoionization detector (PID) readings for the measurable presence of VOC and readings for methane (via a portable multi-gas meter) were also collected and recorded.

## ***Soil Vapor Sampling and Analysis***

The sampling event on October 5, 2022, included the collection of 8 soil vapor samples from the Beacon Island Site in Beacon Island, New York. The samples were identified as CD10428SG01, CD10428SG02, CD10428SG03, CD10428SG04, CD10428SG05, CD10428SG06, CD10428SG07, and CD10428SG08.

Soil vapor sampling for VOC and Methane was conducted using a laboratory prepared summa canister sampler system, provided by Alpha Analytical Laboratories. A summa canister is a clean metal container sealed with a vacuum. At the time of sampling, a regulator is attached to the summa canister and the vacuum is used to extract air from the surrounding area to fill the metal container.

To facilitate collection of the soil vapor samples, a truck mounted Geoprobe drill rig was advanced to a depth of 5 feet for 7 locations. One location was advanced to a depth of 5 feet utilizing a hand auger. A 21-inch length stainless steel implant for soil gas, fitted with a stainless steel anchor point at the bottom, and attached at the top to a 1/4 -inch diameter tube was placed  
**Albany ♦ Binghamton ♦ Elmira ♦ Plattsburgh ♦ Poughkeepsie ♦ Rochester ♦ Syracuse ♦ Utica ♦ Watertown**

into each sample location. The sampling points were backfilled with sand around the stainless steel implant, and finished with a bentonite seal to the ground surface level. A bucket was placed above the sampling location (upside down), and a bentonite seal was placed at the bottom of the bucket and around the tubing that was inserted through the bucket. Helium was used as a tracer gas. 7 soil vapor points passed with the tracer gas test, while the soil vapor sampling point at probe location B-13 (sample no. CD10428SG05) needed to be resealed to pass the tracer gas test. Upon completion of this process, soil vapor sampling began with the summa canister and a flow regulator. Each vapor sample was collected over an approximate duration of 2 hours. A total of 8 soil vapor samples were collected during the sampling event on October 5, 2022. Approximate sample locations are depicted on the Soil Vapor Sampling Point Location Plan, contained in Attachment A. Additional details for the soil vapor sampling point installation and sample collection are provided on the Soil Vapor Sampling Point Logs in Attachment B.

After collecting and properly securing the samples, the summa canister containers were returned under chain-of-custody procedures to Alpha Analytical Laboratories for analysis via EPA Method TO15-VOC and Methane.

### Field Readings

During the sampling event, the soil vapor was field screened for the measurable presence of VOC and Methane, using a PID equipped with a 10.6 eV lamp and a multi-gas meter. The PID utilized for this sampling is capable of detecting VOC in the ambient air to 1 part per billion (ppb). A summary of the PID and multi-gas readings collected on October 5, 2022, are provided in Table I below.

**Table I**  
**Summary of PID Readings – Collected October 5, 2022**

Location	Ambient PID Reading (ppm)	PID Reading during Purge (ppm)	Methane During Purge (ppm)
B-2	0.020	0.187	ND
B-4	0.050	0.202	ND
B-7	0.022	0.282	ND
B-10	0.008	0.435	ND
B-13	0.045	0.350	ND
B-16	0.050	1.098	ND
B-17	0.034	0.336	ND
B-26	0.015	0.490	ND

Notes:  
 ND = Not detected by field instrument  
 ppm = parts per million

### Summary of Laboratory Data

A copy of the laboratory report, including sample custody documentation, is contained in Attachment C. A summary of the analytical results for the soil vapor samples collected on October 5, 2022, is provided in Table D-1 of Attachment D.

## 5.0 DISCUSSION OF FINDINGS

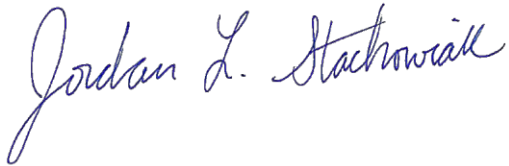
The following list of findings is presented as a generalized summary of the results and observations provided during performance of the soil vapor sampling.

1. Target VOC were identified at detectable concentrations within the 8 soil vapor samples. For 7 of the 8 samples, detected compounds were relatively low concentrations at less than 100 ug/m<sup>3</sup>. Detected VOC were higher for the B-16 location, with ethanol reported at 47,100 ug/m<sup>3</sup> and a few other compounds less than 100 ug/m<sup>3</sup>.
2. Methane was not detected for any of the 8 soil vapor samples.

It is noted that ATL cannot warrant similar conditions would be encountered in other areas not specifically sampled.

Please contact our office should you have any questions, or if we may be of further assistance.

Sincerely,  
*ATLANTIC TESTING LABORATORIES, Limited*

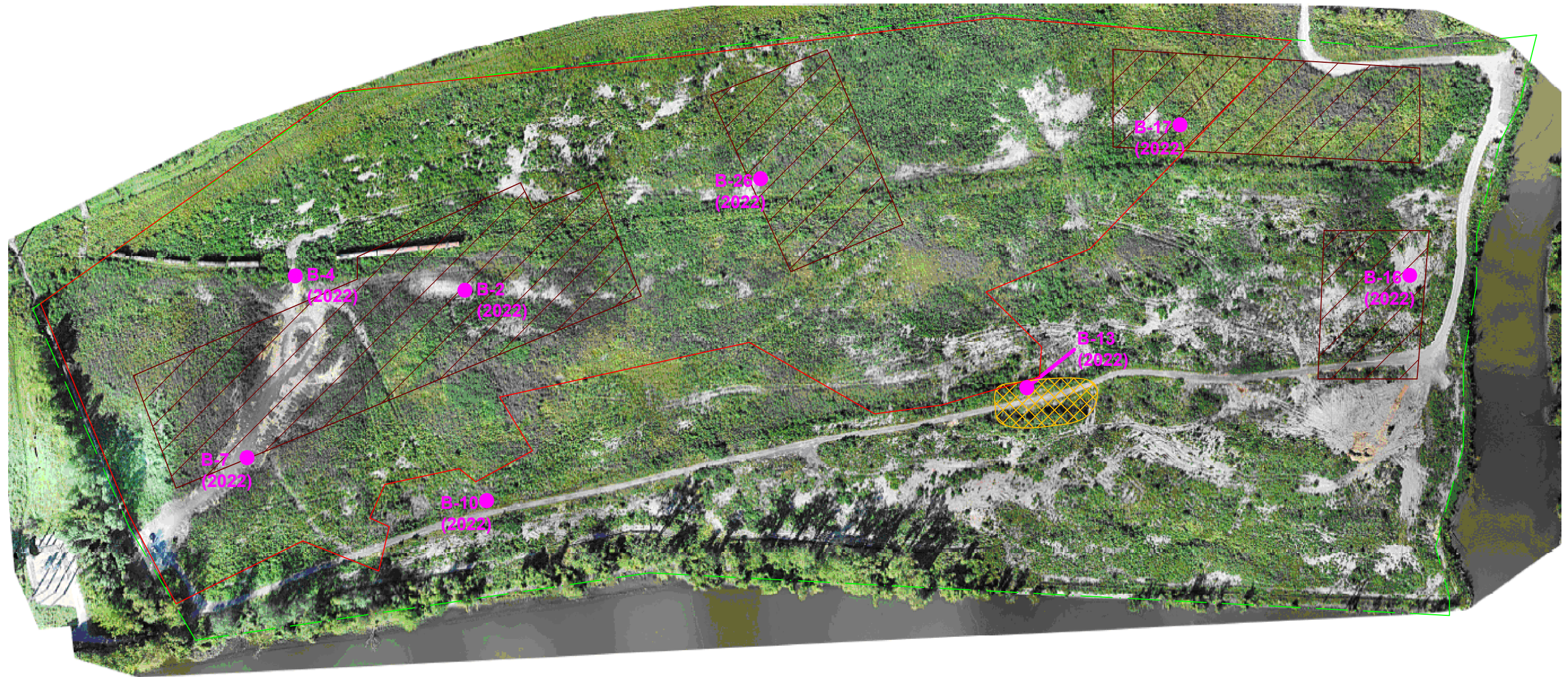


Jordan L. Stachowiak  
Project Scientist






CJD/js


**ATTACHMENT A**  
**SOIL VAPOR SAMPLING POINT**





**LEGEND :**

- 
Approximate Location of Probe with Soil Vapor Sampling Point
- 
Approximate Property Boundary
- 
Approximate Extents of Area with Coal Ash
- 
Approximate Extents of Area with Weathered Petroleum
- 
Approximate Footprint of Proposed Building

<b>Soil Vapor Sampling Point Location Plan</b>	Drawn By: CJD	Drawing: Attachment A	Scale: As Noted	Project No.: AT5596	Date : October 2022
<p><i>Beacon Island Parcel</i> Bethlehem, Albany County, New York</p>			<p><b>ATLANTIC TESTING LABORATORIES, Limited</b>          Albany, NY Binghamton, NY Canton, NY Elmira, NY Poughkeepsie, NY          Plattsburgh, NY Rochester, NY Syracuse, NY Utica, NY Watertown, NY  <small>WBE Certified Company      www.AtlanticTesting.com</small></p>		



**ATTACHMENT B**  
**SOIL VAPOR SAMPLING POINT LOGS**



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-2  
PROBE ADVANCED: Geoprobe  
ADVANCEMENT DATE: October 4,2022  
SOIL SAMPLING CREW: Jonathan Bonno

**Soil Sampling Services  
Beacon Island Site  
Bethlehem New York  
ATL Report No. CD10428CE-02-10-22**

PROBE LOCATION: See Probe Location Plan  
Probe Depth 5 Feet

Classification of Material  
c=course, m=medium, f=fine  
and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	Recovery	Depth	Classification of Material
0	46"	0'-4'	Black ASH; some f SAND; some SILT (moist, loose, non-plastic)
1			
2			
3			
4	12"	4'-5'	Black ASH; some f SAND; some SILT (moist, loose, non-plastic)
5			

Notes:

- 21-inch stainless steel implant for soil gas installed at 3.25 to 5 feet.
- 1/4-inch Teflon tubing connected to stainless steel implant and extended to above the ground surface for sample collection.
- Sand backfill placed around the stainless steel implant, and bentonite slurry placed above the sand and around the Teflon tubing to provide a seal above the soil gas sampling point.





# ATLANTIC TESTING LABORATORIES

WBE certified company

PROBE NUMBER: B-2  
 SAMPLING DATE: October 5, 2022  
 SAMPLING DATE: 3.25 to 5 Feet  
 SAMPLERS: A. Amell and J. Stachowiak

**Soil Vapor Sample**  
**Beacon Island Site**  
**Bethlehem, New York**  
**ATL Report No. CD10428CE-01-10-22**

Sample ID: CD10428SG02					
Weather		Rain and Cloudy		SUMMA Canister Information	
Temperature (°F)	52	Size (L)	2.7	Canister ID	529
Wind Speed/ Direction (mph)	6/ West-Northwest	Flow Controller ID	02123	Canister Pressure	
Moisture Content	Moist	Reported by Laboratory (in Hg)	-29.8	Measured Prior to Sample Collection (In Hg)	-30.39
Approximate Purge Volume (mL)	100	Measured Following Sample Collection (In Hg)	-7.5	Time	
Background PID (ppb)	20	Start Time	1057	End Time	1257
Tracer Gas	Helium				
Purge Effluent	0				
Concentrated Area (Before)	NS				
Concentrated Area (After)	NS				
Vapor Point (Before)	ND				
Vapor Point (After)	ND				
<b>Key:</b>					
NS = Not Sampled		L= Liters			
ND = Not Detected		in Hg= Inches Mercury			
°F = Degrees Fahrenheit					
mph= Miles per Hour					
mL= Milliliter					
ppb = Parts per Billion					



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-4  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-01-10-22**

PROBE LOCATION: See Probe Location Plan  
 Probe Depth 5 Feet

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	Recovery	Depth	Classification of Material
0	46"	0'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)
		0'-2'	Black ASH; some f SAND; some SILT (moist, loose, non-plastic)
1			
2		2'-4	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)
3			
4	12"	4'-5'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)
5			

**Notes:**

1. 21-inch stainless steel implant for soil gas installed at 3.25 to 5 feet.
2. 1/4-inch Teflon tubing connected to stainless steel implant and extended to above the ground surface for sample collection.
3. Sand backfill placed around the stainless steel implant, and bentonite slurry placed above the sand and around the Teflon tubing to provide a seal above the soil gas sampling point.



# ATLANTIC TESTING LABORATORIES

WBE certified company

WBE certified company

PROBE NUMBER: B-4  
 SAMPLING DATE: October 5, 2022  
 SAMPLING DATE: 3.25 to 5 Feet  
 SAMPLERS: A. Amell and J. Stachowiak

Soil Vapor Sample  
 Beacon Island Site  
 Bethlehem, New York  
 ATL Report No. CD10428CE-01-10-22

Sample ID: CD10428SG01			
Weather	Rain and Cloudy	SUMMA Canister Information	
Temperature (°F)	50	Size (L)	2.7
Wind Speed/ Direction (mph)	4/ West-Southwest	Canister ID	332
Moisture Content	Moist	Flow Controller ID	01951
Approximate Purge Volume (mL)	100	Canister Pressure	
Background PID (ppb)	50	Reported by Laboratory (in Hg)	-29.7
Tracer Gas	Helium	Measured Prior to Sample Collection (In Hg)	-30.28
Purge Effluent	0	Measured Following Sample Collection (In Hg)	2.85
Concentrated Area (Before)	NS	Time	
Concentrated Area (After)	NS	Start Time	1030
Vapor Point (Before)	ND	End Time	1245
Vapor Point (After)	ND		
<b>Key:</b>			
NS = Not Sampled		L= Liters	
ND = Not Detected		in Hg= Inches Mercury	
°F = Degrees Fahrenheit			
mph= Miles per Hour			
mL= Milliliter			
ppb = Parts per Billion			



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-7  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-01-10-22**

PROBE LOCATION: See Probe Location Plan  
 Probe Depth 5 Feet

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	Recovery	Depth	Classification of Material
0	46"	0'	Brown ORGANIC MATERIAL (moist, loose, non-plastic)
		0'-3.5'	Black/Gray mf SAND; and SILT (moist, loose, non-plastic)
1			
2			
3			
		3.5'-4'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)
4	12"	4'-5'	Black ASH; some f SAND; some SILT (wet, loose, non-plastic)
5			

**Notes:**  
 1. 21-inch stainless steel implant for soil gas installed at 3.25 to 5 feet.  
 2. 1/4-inch Teflon tubing connected to stainless steel implant and extended to above the ground surface for sample collection.  
 3. Sand backfill placed around the stainless steel implant, and bentonite slurry placed above the sand and around the Teflon tubing to provide a seal above the soil gas sampling point.



# ATLANTIC TESTING LABORATORIES

WBE certified company

WBE certified company

PROBE NUMBER: B-7  
SAMPLING DATE: October 5, 2022  
SAMPLING DATE: 3.25 to 5 Feet  
SAMPLERS: A. Amell and J. Stachowiak

Soil Vapor Sample  
Beacon Island Site  
Bethlehem, New York  
ATL Report No. CD10428CE-01-10-22

Sample ID: CD10428SG03			
Weather	Rain and Cloudy	SUMMA Canister Information	
Temperature (°F)	52	Size (L)	2.7
Wind Speed/ Direction (mph)	7/ Northwest	Canister ID	3880
Moisture Content	Moist	Flow Controller ID	00971
Approximate Purge Volume (mL)	100	Canister Pressure	
Background PID (ppb)	22	Reported by Laboratory (In Hg)	-29.3
		Measured Prior to Sample Collection (In Hg)	-29.88
		Measured Following Sample Collection (In Hg)	-3.69
Tracer Gas	Helium	Time	
Purge Effluent	0	Start Time	1123
Concentrated Area (Before)	NS	End Time	1320
Concentrated Area (After)	14,425		
Vapor Point (Before)	ND		
Vapor Point (After)	ND		
Key:			
NS = Not Sampled		L = Liters	
ND = Not Detected		in Hg= Inches Mercury	
*F = Degrees Fahrenheit			
mph= Miles per Hour			
mL= Milliliter			
ppb = Parts per Billion			



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-10  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-01-10-22**

PROBE LOCATION: See Probe Location Plan  
 Probe Depth 5 Feet

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	Recovery	Depth	Classification of Material
0	46"	0'	Brown ORGANIC MATERIAL (moist, stiff, very plastic)
		0'-1'	Black/Gray CLAY; trace f SAND; trace SILT (moist, medium stiff, very plastic)
1		1'-2'	Gray CLAY; trace SILT (moist, medium stiff, very plastic)
2	46"	2'-4'	Brown/Gray SILT; some f SAND; trace CLAY (moist, stiff, slightly plastic)
3			
4	12"	4'-4.5'	Brown/Gray CLAY; trace f SAND; trace SILT (moist, medium stiff, very plastic)
5		4.5'-5'	Brown/Gray SILT; some f SAND; trace CLAY (moist, stiff, slightly plastic)

**Notes:**

1. 21-inch stainless steel implant for soil gas installed at 3.25 to 5 feet.
2. 1/4-inch Teflon tubing connected to stainless steel implant and extended to above the ground surface for sample collection.
3. Sand backfill placed around the stainless steel implant, and bentonite slurry placed above the sand and around the Teflon tubing to provide a seal above the soil gas sampling point.



# ATLANTIC TESTING LABORATORIES

WBE certified company

WBE certified company

PROBE NUMBER: **B-10**  
SAMPLING DATE: October 5, 2022  
SAMPLING DATE: 3.25 to 5 Feet  
SAMPLERS: A. Amell and J. Stachowiak

Soil Vapor Sample  
Beacon Island Site  
Bethlehem, New York  
ATL Report No. CD10428CE-01-10-22

Sample ID: CD10428SG04			
Weather	Cloudy	SUMMA Canister Information	
Temperature (°F)	54	Size (L)	2.7
Wind Speed/ Direction (mph)	7/ Northwest	Canister ID	3405
Moisture Content	Moist	Flow Controller ID	01716
Approximate Purge Volume (mL)	100	Canister Pressure	
Background PID (ppb)	8	Reported by Laboratory (in Hg)	-29.8
Tracer Gas	Helium	Measured Prior to Sample Collection (In Hg)	-30.18
Purge Effluent	0	Measured Following Sample Collection (In Hg)	-5.4
Concentrated Area (Before)	NS	Time	
Concentrated Area (After)	13,775	Start Time	1155
Vapor Point (Before)	ND	End Time	1400
Vapor Point (After)	ND		
<b>Key:</b>			
NS = Not Sampled		L= Liters	
ND = Not Detected		in Hg= Inches Mercury	
°F = Degrees Fahrenheit			
mph= Miles per Hour			
mL= Milliliter			
ppb = Parts per Billion			



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-13  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno

PROBE LOCATION: See Probe Location Plan  
 Probe Depth: 5 Feet

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-01-10-22**

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	Recovery	Depth	Classification of Material
0	46"	0'-2'	Brown/Gray cmf SAND; some mf GRAVEL; little CLAY; trace SILT (moist, loose, non-
1			
2		2'-4'	Gray CLAY; mf SAND; some mf GRAVEL (moist, medium stiff, plastic)
3			
4	12"	4'-5'	Gray CLAY; mf SAND; some mf GRAVEL (moist, medium stiff, plastic)
5			

**Notes:**

1. 21-inch stainless steel implant for soil gas installed at 3.25 to 5 feet.
2. 1/4-inch Teflon tubing connected to stainless steel implant and extended to above the ground surface for sample collection.
3. Sand backfill placed around the stainless steel implant, and bentonite slurry placed above the sand and around the Teflon tubing to provide a seal above the soil gas sampling point.





# ATLANTIC TESTING LABORATORIES

WBE certified company

WBE certified company

PROBE NUMBER: **B-13**  
 SAMPLING DATE: October 5, 2022  
 SAMPLING DATE: 3.25 to 5 Feet  
 SAMPLERS: A. Amell and J. Stachowiak

**Soil Vapor Sample**  
**Beacon Island Site**  
**Bethlehem, New York**  
**ATL Report No. CD10428CE-01-10-22**

Sample ID: CD10428SG05			
Weather	Cloudy	SUMMA Canister Information	
Temperature (°F)	54	Size (L)	2.7
Wind Speed/ Direction (mph)	5/ Northwest	Canister ID	2223
Moisture Content	Moist	Flow Controller ID	01386
Approximate Purge Volume (mL)	100	Canister Pressure	
Background PID (ppb)	45	Reported by Laboratory (in Hg)	-29.9
Tracer Gas	Helium	Measured Prior to Sample Collection (In Hg)	-30.08
Purge Effluent	0	Measured Following Sample Collection (In Hg)	-8.87
Concentrated Area (Before)	15.725	Time	
Concentrated Area (After)	13.225	Start Time	1245
Vapor Point (Before)	550/ND*	End Time	1445
Vapor Point (After)	ND		
<b>Key:</b>			
NS = Not Sampled		L= Liters	
ND = Not Detected		in Hg= Inches Mercury	
°F = Degrees Fahrenheit			
mph= Miles per Hour			
mL= Milliliter			
ppb = Parts per Billion			
* = Helium was initially detected in the vapor point during purging. The surface was resealed with bentonite and sampling point purged again. Helium was not detected for the vapor point during second purge.			



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-16  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-01-10-22**

PROBE LOCATION: See Probe Location Plan  
 Probe Depth 5 Feet

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	Recovery	Depth	Classification of Material
0	46"	0'-0.5'	Brown ORGANIC MATERIAL (moist, medium dense, non-plastic) Gray CLAY; mf SAND; some cmf GRAVEL (moist, medium stiff, very plastic)
1		0.5'-2'	
2		2'-4'	Brown cmf SAND; and CLAY; some cmf GRAVEL (moist, medium dense, very plastic)
3	12"	4'-5'	Brown cmf SAND; and CLAY; some cmf GRAVEL (moist, dense, very plastic)
4			
5			

**Notes:**

1. 21-inch stainless steel implant for soil gas installed at 3.25 to 5 feet.
2. 1/4-inch Teflon tubing connected to stainless steel implant and extended to above the ground surface for sample collection.
3. Sand backfill placed around the stainless steel implant, and bentonite slurry placed above the sand and around the Teflon tubing to provide a seal above the soil gas sampling point.



# ATLANTIC TESTING LABORATORIES

WBE certified company

WBE certified company

PROBE NUMBER: B-16  
 SAMPLING DATE: October 5, 2022  
 SAMPLING DATE: 3.25 to 5 Feet  
 SAMPLERS: A. Amell and J. Stachowiak

Soil Vapor Sample  
 Beacon Island Site  
 Bethlehem, New York  
 ATL Report No. CD10428CE-01-10-22

Sample ID: CD10428SG06			
Weather	Cloudy	SUMMA Canister Information	
Temperature (°F)	54	Size (L)	2.7
Wind Speed/ Direction (mph)	4/ West Northwest	Canister ID	3215
Moisture Content	Moist	Flow Controller ID	01806
Approximate Purge Volume (mL)	100	Canister Pressure	
Background PID (ppb)	50	Reported by Laboratory (in Hg)	-29.6
		Measured Prior to Sample Collection (In Hg)	29.34
		Measured Following Sample Collection (In Hg)	-4.5
Tracer Gas	Helium	Time	
Purge Effluent	0	Start Time	1430
Concentrated Area (Before)	16,350	End Time	1630
Concentrated Area (After)	51,000		
Vapor Point (Before)	ND		
Vapor Point (After)	ND		
<b>Key:</b>			
NS = Not Sampled		L= Liters	
ND = Not Detected		in Hg= Inches Mercury	
°F = Degrees Fahrenheit			
mph= Miles per Hour			
mL= Milliliter			
ppb = Parts per Billion			



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-17  
 PROBE ADVANCED: Geoprobe  
 ADVANCEMENT DATE: October 4, 2022  
 SOIL SAMPLING CREW: Jonathan Bonno

**Soil Sampling Services  
 Beacon Island Site  
 Bethlehem New York  
 ATL Report No. CD10428CE-01-10-22**

PROBE LOCATION: See Probe Location Plan  
 Probe Depth 5 Feet

Classification of Material  
 c=course, m=medium, f=fine  
 and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	Recovery	Depth	Classification of Material
0	46"	0'	Brown ORGANIC MATERIAL (wet, loose, non-plastic)
		0'-4'	Dark Brown mf SAND; SILT (wet, medium dense, non-plastic)
1			
2			
3			
4	12"	4'-4.5'	Brown cmf SAND; mf GRAVEL; trace SILT (wet, medium dense, non-plastic)
		4.5'-5'	Brown cmf SAND; mf GRAVEL; trace SILT (wet, medium dense, non-plastic)
5			

**Notes:**

1. 21-inch stainless steel implant for soil gas installed at 3.25 to 5 feet.
2. 1/4-inch Teflon tubing connected to stainless steel implant and extended to above the ground surface for sample collection.
3. Sand backfill placed around the stainless steel implant, and bentonite slurry placed above the sand and around the Teflon tubing to provide a seal above the soil gas sampling point.



# ATLANTIC TESTING LABORATORIES

WBE certified company

WBE certified company

PROBE NUMBER: B-17  
SAMPLING DATE: October 5, 2022  
SAMPLING DATE: 3.25 to 5 Feet  
SAMPLERS: A. Amell and J. Stachowiak

Soil Vapor Sample  
Beacon Island Site  
Bethlehem, New York  
ATL Report No. CD10428CE-01-10-22

Sample ID: CD10428SG07			
Weather		Partly Cloudy	
Temperature (°F)	59	SUMMA Canister Information	
Wind Speed/ Direction (mph)	4/ West Northwest	Size (L)	2.7
Moisture Content	Moist	Canister ID	3034
Approximate Purge Volume (mL)	100	Flow Controller ID	01698
Background PID (ppb)	34	Canister Pressure	
		Reported by Laboratory (In Hg)	-29.9
		Measured Prior to Sample Collection (In Hg)	-30.09
Tracer Gas	Helium	Measured Following Sample Collection (In Hg)	-7.76
Purge Effluent	0	Time	
Concentrated Area (Before)	17,550	Start Time	1515
Concentrated Area (After)	5,870	End Time	1715
Vapor Point (Before)	ND		
Vapor Point (After)	ND		
Key:			
NS = Not Sampled		L = Liters	
ND = Not Detected		in Hg= Inches Mercury	
°F = Degrees Fahrenheit			
mph= Miles per Hour			
mL= Milliliter			
ppb = Parts per Billion			



# ATLANTIC TESTING LABORATORIES

**WBE certified company**

PROBE NUMBER: B-26  
PROBE ADVANCED: Hand  
ADVANCEMENT DATE: October 5, 2022  
SOIL SAMPLING CREW: Cheyenne Dashnaw

PROBE LOCATION: See Probe Location Plan  
Probe Depth: 5 Feet

**Soil Sampling Services  
Beacon Island Site  
Bethlehem New York  
ATL Report No. CD10428CE-01-10-22**

Classification of Material  
c=course, m=medium, f=fine  
and=35-50%, some=20-35%, little=10-20%, trace=0-10%

Depth (ft)	Recovery	Depth	Classification of Material
0	46'	0'	Brown ORGANIC MATERIAL (wet, loose, non-plastic)
		0'-4'	Dark Brown mf SAND; SILT (wet, medium dense, non-plastic)
1			
2			
3			
4	12'	4'-5	Brown cmf SAND; mf GRAVEL; trace SILT (wet, medium dense, non-plastic)
5			

**Notes:**

1. 21-inch stainless steel implant for soil gas installed at 3.25 to 5 feet.
2. 1/4-inch Teflon tubing connected to stainless steel implant and extended to above the ground surface for sample collection.
3. Sand backfill placed around the stainless steel implant, and bentonite slurry placed above the sand and around the Teflon tubing to provide a seal above the soil gas sampling point.



# ATLANTIC TESTING LABORATORIES

WBE certified company

WBE certified company

PROBE NUMBER: B-26  
 SAMPLING DATE: October 5, 2022  
 SAMPLING DATE: 3.25 to 5 Feet  
 SAMPLERS: A. Amell and J. Stachowiak

Soil Vapor Sample  
 Beacon Island Site  
 Bethlehem, New York  
 ATL Report No. CD10428CE-01-10-22

Sample ID: CD10428SG08			
Weather	Cloudy	SUMMA Canister Information	
Temperature (°F)	59	Size (L)	2.7
Wind Speed/ Direction (mph)	4/ West Northwest	Canister ID	1731
Moisture Content	Moist	Flow Controller ID	00271
Approximate Purge Volume (mL)	100	Canister Pressure	
Background PID (ppb)	15	Reported by Laboratory (in Hg)	-29.8
		Measured Prior to Sample Collection (In Hg)	-30.07
		Measured Following Sample Collection (In Hg)	-9.46
Tracer Gas	Helium	Time	
Purge Effluent	0	Start Time	1610
Concentrated Area (Before)	10,850	End Time	1800
Concentrated Area (After)	2,025		
Vapor Point (Before)	ND		
Vapor Point (After)	ND		
<b>Key:</b>			
NS = Not Sampled		L= Liters	
ND = Not Detected		in Hg= Inches Mercury	
°F = Degrees Fahrenheit			
mph= Miles per Hour			
mL= Milliliter			
ppb = Parts per Billion			

**ATTACHMENT C**

**LABORATORY REPORTS AND SAMPLE CUSTODY DOCUMENTATION**





## ANALYTICAL REPORT

Lab Number:	L2255277
Client:	Atlantic Testing Laboratories, Limited 6431 US Highway 11 PO Box 29 Canton, NY 13617
ATTN:	Cheyenne Dashnaw
Phone:	(315) 386-4578
Project Name:	BEACON ISLAND SITE
Project Number:	CD10428
Report Date:	10/10/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2255277-01	CD10428SG01	SOIL_VAPOR	BEACON ISLAND, NY	10/05/22 12:45	10/06/22
L2255277-02	CD10428SG02	SOIL_VAPOR	BEACON ISLAND, NY	10/05/22 12:57	10/06/22
L2255277-03	CD10428SG03	SOIL_VAPOR	BEACON ISLAND, NY	10/05/22 13:20	10/06/22
L2255277-04	CD10428SG04	SOIL_VAPOR	BEACON ISLAND, NY	10/05/22 14:00	10/06/22
L2255277-05	CD10428SG05	SOIL_VAPOR	BEACON ISLAND, NY	10/05/22 14:45	10/06/22
L2255277-06	CD10428SG06	SOIL_VAPOR	BEACON ISLAND, NY	10/05/22 16:30	10/06/22
L2255277-07	CD10428SG07	SOIL_VAPOR	BEACON ISLAND, NY	10/05/22 17:15	10/06/22
L2255277-08	CD10428SG08	SOIL_VAPOR	BEACON ISLAND, NY	10/05/22 18:00	10/06/22

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### 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.

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**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on October 4, 2022. The canister certification results are provided as an addendum.

L2255277-06D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

The WG1696922-3 LCS recovery for dichlorofluoromethane (132%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

#### Fixed Gases

L2255277-02D, -03D, -04D, -05D, and -06D: Prior to sample analysis, the canisters were pressurized with UHP Hydrogen in order to facilitate the transfer of sample to the Gas Chromatograph. The addition of Hydrogen resulted in a dilution of the sample. The reporting limits have been elevated accordingly.

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:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 10/10/22

**AIR**

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-01  
 Client ID: CD10428SG01  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 12:45  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/08/22 04:22  
 Analyst: TJS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.597	0.200	--	2.95	0.989	--		1
Chloromethane	0.274	0.200	--	0.566	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	3.04	1.00	--	7.22	2.38	--		1
Trichlorofluoromethane	0.444	0.200	--	2.50	1.12	--		1
Isopropanol	18.4	0.500	--	45.2	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.849	0.500	--	2.57	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.740	0.200	--	2.30	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** BEACON ISLAND SITE**Lab Number:** L2255277**Project Number:** CD10428**Report Date:** 10/10/22**SAMPLE RESULTS**

Lab ID: L2255277-01  
 Client ID: CD10428SG01  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 12:45  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	6.33	0.200	--	30.9	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	0.977	0.200	--	5.33	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.269	0.200	--	0.926	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-01  
 Client ID: CD10428SG01  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 12:45  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	91		60-140





**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-02  
 Client ID: CD10428SG02  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 12:57  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/08/22 05:04  
 Analyst: TJS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.550	0.200	--	2.72	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.49	1.00	--	5.91	2.38	--		1
Trichlorofluoromethane	0.402	0.200	--	2.26	1.12	--		1
Isopropanol	16.0	0.500	--	39.3	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.855	0.500	--	2.59	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.829	0.200	--	2.58	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-02  
 Client ID: CD10428SG02  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 12:57  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	0.902	0.500	--	3.25	1.80	--		1
Chloroform	9.60	0.200	--	46.9	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	0.798	0.200	--	4.35	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1



**Project Name:** BEACON ISLAND SITE**Lab Number:** L2255277**Project Number:** CD10428**Report Date:** 10/10/22**SAMPLE RESULTS**

Lab ID: L2255277-02  
 Client ID: CD10428SG02  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 12:57  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	89		60-140



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-03  
 Client ID: CD10428SG03  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 13:20  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/08/22 05:44  
 Analyst: TJS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.509	0.200	--	2.52	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	3.02	1.00	--	7.17	2.38	--		1
Trichlorofluoromethane	0.231	0.200	--	1.30	1.12	--		1
Isopropanol	6.58	0.500	--	16.2	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	1.21	0.500	--	3.67	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.654	0.200	--	2.04	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.586	0.500	--	1.73	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-03  
 Client ID: CD10428SG03  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 13:20  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	2.67	0.200	--	13.0	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	0.291	0.200	--	1.59	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	0.892	0.200	--	4.79	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-03  
 Client ID: CD10428SG03  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 13:20  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	90		60-140



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-04  
 Client ID: CD10428SG04  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 14:00  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/08/22 07:05  
 Analyst: TJS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.681	0.200	--	3.37	0.989	--		1
Chloromethane	0.230	0.200	--	0.475	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	5.02	1.00	--	11.9	2.38	--		1
Trichlorofluoromethane	0.249	0.200	--	1.40	1.12	--		1
Isopropanol	3.69	0.500	--	9.07	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.25	0.200	--	3.89	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.69	0.500	--	4.98	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-04  
 Client ID: CD10428SG04  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 14:00  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	4.11	0.200	--	20.1	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.395	0.200	--	1.39	0.705	--		1
1,1,1-Trichloroethane	0.967	0.200	--	5.28	1.09	--		1
Benzene	0.215	0.200	--	0.687	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	0.216	0.200	--	1.16	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.207	0.200	--	0.848	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.306	0.200	--	1.15	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1





**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-04  
 Client ID: CD10428SG04  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 14:00  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	0.493	0.400	--	2.14	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	88		60-140



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-05  
 Client ID: CD10428SG05  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 14:45  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/08/22 07:48  
 Analyst: TJS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.611	0.200	--	3.02	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	1.67	0.200	--	3.69	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	18.1	1.00	--	43.0	2.38	--		1
Trichlorofluoromethane	0.248	0.200	--	1.39	1.12	--		1
Isopropanol	6.51	0.500	--	16.0	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	19.3	0.200	--	60.1	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	3.15	0.500	--	9.29	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** BEACON ISLAND SITE**Lab Number:** L2255277**Project Number:** CD10428**Report Date:** 10/10/22**SAMPLE RESULTS**

Lab ID: L2255277-05  
 Client ID: CD10428SG05  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 14:45  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	0.873	0.200	--	4.26	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	5.36	0.200	--	18.9	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	7.58	0.200	--	24.2	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	9.97	0.200	--	34.3	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	3.22	0.200	--	15.0	0.934	--		1
Heptane	2.32	0.200	--	9.51	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	7.58	0.200	--	28.6	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	1.54	0.200	--	6.69	0.869	--		1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-05  
 Client ID: CD10428SG05  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 14:45  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	3.88	0.400	--	16.9	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	2.19	0.200	--	9.51	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	0.440	0.200	--	2.16	0.983	--		1
1,2,4-Trimethylbenzene	1.00	0.200	--	4.92	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	95		60-140



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-06 D  
 Client ID: CD10428SG06  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 16:30  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/09/22 03:11  
 Analyst: TJS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	10.1	--	ND	49.9	--		50.4
Chloromethane	ND	10.1	--	ND	20.9	--		50.4
Freon-114	ND	10.1	--	ND	70.6	--		50.4
Vinyl chloride	ND	10.1	--	ND	25.8	--		50.4
1,3-Butadiene	ND	10.1	--	ND	22.3	--		50.4
Bromomethane	ND	10.1	--	ND	39.2	--		50.4
Chloroethane	ND	10.1	--	ND	26.7	--		50.4
Ethanol	25000	252	--	47100	475	--		50.4
Vinyl bromide	ND	10.1	--	ND	44.2	--		50.4
Acetone	ND	50.4	--	ND	120	--		50.4
Trichlorofluoromethane	ND	10.1	--	ND	56.8	--		50.4
Isopropanol	ND	25.2	--	ND	61.9	--		50.4
1,1-Dichloroethene	ND	10.1	--	ND	40.0	--		50.4
Tertiary butyl Alcohol	ND	25.2	--	ND	76.4	--		50.4
Methylene chloride	ND	25.2	--	ND	87.5	--		50.4
3-Chloropropene	ND	10.1	--	ND	31.6	--		50.4
Carbon disulfide	26.9	10.1	--	83.8	31.5	--		50.4
Freon-113	ND	10.1	--	ND	77.4	--		50.4
trans-1,2-Dichloroethene	ND	10.1	--	ND	40.0	--		50.4
1,1-Dichloroethane	ND	10.1	--	ND	40.9	--		50.4
Methyl tert butyl ether	ND	10.1	--	ND	36.4	--		50.4
2-Butanone	ND	25.2	--	ND	74.3	--		50.4
cis-1,2-Dichloroethene	ND	10.1	--	ND	40.0	--		50.4



**Project Name:** BEACON ISLAND SITE**Lab Number:** L2255277**Project Number:** CD10428**Report Date:** 10/10/22**SAMPLE RESULTS**

Lab ID: L2255277-06 D  
 Client ID: CD10428SG06  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 16:30  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	25.2	--	ND	90.8	--		50.4
Chloroform	ND	10.1	--	ND	49.3	--		50.4
Tetrahydrofuran	ND	25.2	--	ND	74.3	--		50.4
1,2-Dichloroethane	ND	10.1	--	ND	40.9	--		50.4
n-Hexane	21.8	10.1	--	76.8	35.6	--		50.4
1,1,1-Trichloroethane	ND	10.1	--	ND	55.1	--		50.4
Benzene	ND	10.1	--	ND	32.3	--		50.4
Carbon tetrachloride	ND	10.1	--	ND	63.5	--		50.4
Cyclohexane	ND	10.1	--	ND	34.8	--		50.4
1,2-Dichloropropane	ND	10.1	--	ND	46.7	--		50.4
Bromodichloromethane	ND	10.1	--	ND	67.7	--		50.4
1,4-Dioxane	ND	10.1	--	ND	36.4	--		50.4
Trichloroethene	ND	10.1	--	ND	54.3	--		50.4
2,2,4-Trimethylpentane	ND	10.1	--	ND	47.2	--		50.4
Heptane	ND	10.1	--	ND	41.4	--		50.4
cis-1,3-Dichloropropene	ND	10.1	--	ND	45.9	--		50.4
4-Methyl-2-pentanone	ND	25.2	--	ND	103	--		50.4
trans-1,3-Dichloropropene	ND	10.1	--	ND	45.9	--		50.4
1,1,2-Trichloroethane	ND	10.1	--	ND	55.1	--		50.4
Toluene	ND	10.1	--	ND	38.1	--		50.4
2-Hexanone	ND	10.1	--	ND	41.4	--		50.4
Dibromochloromethane	ND	10.1	--	ND	86.0	--		50.4
1,2-Dibromoethane	ND	10.1	--	ND	77.6	--		50.4
Tetrachloroethene	ND	10.1	--	ND	68.5	--		50.4
Chlorobenzene	ND	10.1	--	ND	46.5	--		50.4
Ethylbenzene	ND	10.1	--	ND	43.9	--		50.4



**Project Name:** BEACON ISLAND SITE**Lab Number:** L2255277**Project Number:** CD10428**Report Date:** 10/10/22**SAMPLE RESULTS**

Lab ID: L2255277-06 D  
 Client ID: CD10428SG06  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 16:30  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	ND	20.2	--	ND	87.7	--		50.4
Bromoform	ND	10.1	--	ND	104	--		50.4
Styrene	ND	10.1	--	ND	43.0	--		50.4
1,1,2,2-Tetrachloroethane	ND	10.1	--	ND	69.4	--		50.4
o-Xylene	ND	10.1	--	ND	43.9	--		50.4
4-Ethyltoluene	ND	10.1	--	ND	49.7	--		50.4
1,3,5-Trimethylbenzene	ND	10.1	--	ND	49.7	--		50.4
1,2,4-Trimethylbenzene	ND	10.1	--	ND	49.7	--		50.4
Benzyl chloride	ND	10.1	--	ND	52.3	--		50.4
1,3-Dichlorobenzene	ND	10.1	--	ND	60.7	--		50.4
1,4-Dichlorobenzene	ND	10.1	--	ND	60.7	--		50.4
1,2-Dichlorobenzene	ND	10.1	--	ND	60.7	--		50.4
1,2,4-Trichlorobenzene	ND	10.1	--	ND	75.0	--		50.4
Hexachlorobutadiene	ND	10.1	--	ND	108	--		50.4

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	106		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	100		60-140



**Project Name:** BEACON ISLAND SITE**Lab Number:** L2255277**Project Number:** CD10428**Report Date:** 10/10/22**SAMPLE RESULTS**

Lab ID: L2255277-07  
 Client ID: CD10428SG07  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 17:15  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/09/22 03:51  
 Analyst: TJS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.489	0.200	--	2.42	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	0.205	0.200	--	0.454	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	18.7	5.00	--	35.2	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	6.81	1.00	--	16.2	2.38	--		1
Trichlorofluoromethane	0.232	0.200	--	1.30	1.12	--		1
Isopropanol	2.63	0.500	--	6.46	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.03	0.200	--	3.21	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.01	0.500	--	2.98	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1





**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-07  
 Client ID: CD10428SG07  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 17:15  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	4.51	0.200	--	22.0	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.624	0.200	--	2.20	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.204	0.200	--	0.652	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.836	0.200	--	3.43	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.214	0.200	--	0.806	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1



**Project Name:** BEACON ISLAND SITE**Lab Number:** L2255277**Project Number:** CD10428**Report Date:** 10/10/22**SAMPLE RESULTS**

Lab ID: L2255277-07  
 Client ID: CD10428SG07  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 17:15  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	0.527	0.400	--	2.29	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	99		60-140



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-08  
 Client ID: CD10428SG08  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 18:00  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/09/22 04:31  
 Analyst: TJS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.494	0.200	--	2.44	0.989	--		1
Chloromethane	0.240	0.200	--	0.496	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	14.5	5.00	--	27.3	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	31.4	1.00	--	74.6	2.38	--		1
Trichlorofluoromethane	0.371	0.200	--	2.08	1.12	--		1
Isopropanol	17.2	0.500	--	42.3	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	1.74	0.500	--	5.27	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.346	0.200	--	1.08	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	4.21	0.500	--	12.4	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### SAMPLE RESULTS

Lab ID: L2255277-08  
 Client ID: CD10428SG08  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 18:00  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	6.18	0.500	--	22.3	1.80	--		1
Chloroform	9.53	0.200	--	46.5	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.695	0.200	--	2.45	0.705	--		1
1,1,1-Trichloroethane	1.20	0.200	--	6.55	1.09	--		1
Benzene	0.972	0.200	--	3.11	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.235	0.200	--	0.809	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.493	0.200	--	2.02	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.370	0.200	--	1.39	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1



**Project Name:** BEACON ISLAND SITE**Lab Number:** L2255277**Project Number:** CD10428**Report Date:** 10/10/22**SAMPLE RESULTS**

Lab ID: L2255277-08  
 Client ID: CD10428SG08  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 18:00  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	0.322	0.200	--	1.94	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	103		60-140



Project Name: BEACON ISLAND SITE

Lab Number: L2255277

Project Number: CD10428

Report Date: 10/10/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/07/22 18:37

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-05 Batch: WG1696922-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1



Project Name: BEACON ISLAND SITE

Lab Number: L2255277

Project Number: CD10428

Report Date: 10/10/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/07/22 18:37

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-05 Batch: WG1696922-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1



Project Name: BEACON ISLAND SITE

Lab Number: L2255277

Project Number: CD10428

Report Date: 10/10/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/07/22 18:37

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-05 Batch: WG1696922-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1





Project Name: BEACON ISLAND SITE

Lab Number: L2255277

Project Number: CD10428

Report Date: 10/10/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/08/22 18:01

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 06-08 Batch: WG1697138-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1



Project Name: BEACON ISLAND SITE

Lab Number: L2255277

Project Number: CD10428

Report Date: 10/10/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/08/22 18:01

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 06-08 Batch: WG1697138-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1



Project Name: BEACON ISLAND SITE

Lab Number: L2255277

Project Number: CD10428

Report Date: 10/10/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/08/22 18:01

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 06-08 Batch: WG1697138-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Lab Number:** L2255277

**Project Number:** CD10428

**Report Date:** 10/10/22

Parameter	LCS	Qual	LCSD	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG1696922-3								
Dichlorodifluoromethane	99		-		70-130	-		
Chloromethane	101		-		70-130	-		
Freon-114	104		-		70-130	-		
Vinyl chloride	101		-		70-130	-		
1,3-Butadiene	103		-		70-130	-		
Bromomethane	100		-		70-130	-		
Chloroethane	99		-		70-130	-		
Ethanol	100		-		40-160	-		
Vinyl bromide	91		-		70-130	-		
Acetone	86		-		40-160	-		
Trichlorofluoromethane	103		-		70-130	-		
Isopropanol	118		-		40-160	-		
1,1-Dichloroethene	102		-		70-130	-		
Tertiary butyl Alcohol	109		-		70-130	-		
Methylene chloride	97		-		70-130	-		
3-Chloropropene	107		-		70-130	-		
Carbon disulfide	91		-		70-130	-		
Freon-113	100		-		70-130	-		
trans-1,2-Dichloroethene	94		-		70-130	-		
1,1-Dichloroethane	99		-		70-130	-		
Methyl tert butyl ether	102		-		70-130	-		
2-Butanone	97		-		70-130	-		
cis-1,2-Dichloroethene	102		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2255277

Project Number: CD10428

Report Date: 10/10/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG1696922-3								
Ethyl Acetate	102		-		70-130	-		
Chloroform	103		-		70-130	-		
Tetrahydrofuran	97		-		70-130	-		
1,2-Dichloroethane	103		-		70-130	-		
n-Hexane	98		-		70-130	-		
1,1,1-Trichloroethane	106		-		70-130	-		
Benzene	93		-		70-130	-		
Carbon tetrachloride	113		-		70-130	-		
Cyclohexane	98		-		70-130	-		
1,2-Dichloropropane	102		-		70-130	-		
Bromodichloromethane	103		-		70-130	-		
1,4-Dioxane	96		-		70-130	-		
Trichloroethene	100		-		70-130	-		
2,2,4-Trimethylpentane	101		-		70-130	-		
Heptane	103		-		70-130	-		
cis-1,3-Dichloropropene	112		-		70-130	-		
4-Methyl-2-pentanone	104		-		70-130	-		
trans-1,3-Dichloropropene	103		-		70-130	-		
1,1,2-Trichloroethane	103		-		70-130	-		
Toluene	94		-		70-130	-		
2-Hexanone	104		-		70-130	-		
Dibromochloromethane	107		-		70-130	-		
1,2-Dibromoethane	104		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Lab Number:** L2255277

**Project Number:** CD10428

**Report Date:** 10/10/22

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG1696922-3								
Tetrachloroethene	96		-		70-130	-		
Chlorobenzene	100		-		70-130	-		
Ethylbenzene	101		-		70-130	-		
p/m-Xylene	102		-		70-130	-		
Bromoform	111		-		70-130	-		
Styrene	101		-		70-130	-		
1,1,2,2-Tetrachloroethane	106		-		70-130	-		
o-Xylene	104		-		70-130	-		
4-Ethyltoluene	98		-		70-130	-		
1,3,5-Trimethylbenzene	100		-		70-130	-		
1,2,4-Trimethylbenzene	108		-		70-130	-		
Benzyl chloride	121		-		70-130	-		
1,3-Dichlorobenzene	102		-		70-130	-		
1,4-Dichlorobenzene	104		-		70-130	-		
1,2-Dichlorobenzene	100		-		70-130	-		
1,2,4-Trichlorobenzene	106		-		70-130	-		
Hexachlorobutadiene	105		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: BEACON ISLAND SITE

Lab Number: L2255277

Project Number: CD10428

Report Date: 10/10/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 06-08 Batch: WG1697138-3								
Dichlorodifluoromethane	108		-		70-130	-		
Chloromethane	114		-		70-130	-		
Freon-114	117		-		70-130	-		
Vinyl chloride	95		-		70-130	-		
1,3-Butadiene	116		-		70-130	-		
Bromomethane	96		-		70-130	-		
Chloroethane	88		-		70-130	-		
Ethanol	120		-		40-160	-		
Vinyl bromide	89		-		70-130	-		
Acetone	104		-		40-160	-		
Trichlorofluoromethane	111		-		70-130	-		
Isopropanol	102		-		40-160	-		
1,1-Dichloroethene	91		-		70-130	-		
Tertiary butyl Alcohol	91		-		70-130	-		
Methylene chloride	97		-		70-130	-		
3-Chloropropene	82		-		70-130	-		
Carbon disulfide	89		-		70-130	-		
Freon-113	91		-		70-130	-		
trans-1,2-Dichloroethene	78		-		70-130	-		
1,1-Dichloroethane	81		-		70-130	-		
Methyl tert butyl ether	91		-		70-130	-		
2-Butanone	89		-		70-130	-		
cis-1,2-Dichloroethene	82		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Lab Number:** L2255277

**Project Number:** CD10428

**Report Date:** 10/10/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air - Mansfield Lab Associated sample(s): 06-08 Batch: WG1697138-3								
Ethyl Acetate	83		-		70-130	-		
Chloroform	100		-		70-130	-		
Tetrahydrofuran	82		-		70-130	-		
1,2-Dichloroethane	90		-		70-130	-		
n-Hexane	92		-		70-130	-		
1,1,1-Trichloroethane	100		-		70-130	-		
Benzene	94		-		70-130	-		
Carbon tetrachloride	111		-		70-130	-		
Cyclohexane	91		-		70-130	-		
1,2-Dichloropropane	90		-		70-130	-		
Bromodichloromethane	106		-		70-130	-		
1,4-Dioxane	97		-		70-130	-		
Trichloroethene	90		-		70-130	-		
2,2,4-Trimethylpentane	93		-		70-130	-		
Heptane	101		-		70-130	-		
cis-1,3-Dichloropropene	108		-		70-130	-		
4-Methyl-2-pentanone	108		-		70-130	-		
trans-1,3-Dichloropropene	95		-		70-130	-		
1,1,2-Trichloroethane	94		-		70-130	-		
Toluene	76		-		70-130	-		
2-Hexanone	96		-		70-130	-		
Dibromochloromethane	88		-		70-130	-		
1,2-Dibromoethane	96		-		70-130	-		



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Lab Number:** L2255277

**Project Number:** CD10428

**Report Date:** 10/10/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 06-08 Batch: WG1697138-3								
Tetrachloroethene	90		-		70-130	-		
Chlorobenzene	93		-		70-130	-		
Ethylbenzene	85		-		70-130	-		
p/m-Xylene	88		-		70-130	-		
Bromoform	97		-		70-130	-		
Styrene	95		-		70-130	-		
1,1,2,2-Tetrachloroethane	100		-		70-130	-		
o-Xylene	92		-		70-130	-		
4-Ethyltoluene	91		-		70-130	-		
1,3,5-Trimethylbenzene	96		-		70-130	-		
1,2,4-Trimethylbenzene	100		-		70-130	-		
Benzyl chloride	93		-		70-130	-		
1,3-Dichlorobenzene	107		-		70-130	-		
1,4-Dichlorobenzene	101		-		70-130	-		
1,2-Dichlorobenzene	104		-		70-130	-		
1,2,4-Trichlorobenzene	101		-		70-130	-		
Hexachlorobutadiene	101		-		70-130	-		

## Lab Duplicate Analysis

Batch Quality Control

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2255277

Report Date: 10/10/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1696922-5 QC Sample: L2255277-03 Client ID: CD10428SG03						
Dichlorodifluoromethane	0.509	0.536	ppbV	5		25
Chloromethane	ND	ND	ppbV	NC		25
Freon-114	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethanol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	3.02	3.12	ppbV	3		25
Trichlorofluoromethane	0.231	0.226	ppbV	2		25
Isopropanol	6.58	6.64	ppbV	1		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Tertiary butyl Alcohol	1.21	1.25	ppbV	3		25
Methylene chloride	ND	0.513	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	0.654	0.664	ppbV	2		25
Freon-113	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2255277

Report Date: 10/10/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1696922-5 QC Sample: L2255277-03 Client ID: CD10428SG03						
2-Butanone	0.586	0.615	ppbV	5		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25
Chloroform	2.67	2.72	ppbV	2		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.291	0.291	ppbV	0		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	0.892	0.908	ppbV	2		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2255277

Report Date: 10/10/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1696922-5 QC Sample: L2255277-03 Client ID: CD10428SG03						
Toluene	ND	ND	ppbV	NC		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

**SAMPLE RESULTS**

Lab ID: L2255277-01 D  
 Client ID: CD10428SG01  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 12:45  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
 Analytical Method: 51,3C  
 Analytical Date: 10/10/22 12:02  
 Analyst: BJB

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Methane	ND		%	0.172	--	1.724

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

**SAMPLE RESULTS**

Lab ID: L2255277-02 D  
 Client ID: CD10428SG02  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 12:57  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
 Analytical Method: 51,3C  
 Analytical Date: 10/08/22 17:08  
 Analyst: BJB

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Methane	ND		%	0.208	--	2.083

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

**SAMPLE RESULTS**

Lab ID: L2255277-03 D  
 Client ID: CD10428SG03  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 13:20  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
 Analytical Method: 51,3C  
 Analytical Date: 10/08/22 17:41  
 Analyst: BJB

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Methane	ND		%	0.185	--	1.852

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

**SAMPLE RESULTS**

Lab ID: L2255277-04 D  
 Client ID: CD10428SG04  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 14:00  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
 Analytical Method: 51,3C  
 Analytical Date: 10/08/22 18:15  
 Analyst: BJB

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Methane	ND		%	0.192	--	1.923



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

**SAMPLE RESULTS**

Lab ID: L2255277-05 D  
 Client ID: CD10428SG05  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 14:45  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
 Analytical Method: 51,3C  
 Analytical Date: 10/08/22 18:48  
 Analyst: BJB

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Methane	ND		%	0.172	--	1.724

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

**SAMPLE RESULTS**

Lab ID: L2255277-06 D  
 Client ID: CD10428SG06  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 16:30  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
 Analytical Method: 51,3C  
 Analytical Date: 10/08/22 19:22  
 Analyst: BJB

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Methane	ND		%	0.250	--	2.5

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

**SAMPLE RESULTS**

Lab ID: L2255277-07 D  
 Client ID: CD10428SG07  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 17:15  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
 Analytical Method: 51,3C  
 Analytical Date: 10/10/22 10:55  
 Analyst: BJB

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Methane	ND		%	0.227	--	2.273

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

**SAMPLE RESULTS**

Lab ID: L2255277-08 D  
 Client ID: CD10428SG08  
 Sample Location: BEACON ISLAND, NY

Date Collected: 10/05/22 18:00  
 Date Received: 10/06/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
 Analytical Method: 51,3C  
 Analytical Date: 10/10/22 11:29  
 Analyst: BJB

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Methane	ND		%	0.217	--	2.174

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 51,3C  
Analytical Date: 10/07/22 13:55  
Analyst: BJB

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Fixed Gases by GC - Mansfield Lab for sample(s): 02-06 Batch: WG1696869-3					
Methane	ND		%	0.100	--

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 51,3C  
Analytical Date: 10/10/22 10:25  
Analyst: BJB

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Fixed Gases by GC - Mansfield Lab for sample(s): 01,07-08 Batch: WG1697529-3					
Methane	ND		%	0.100	--

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Project Number:** CD10428

**Lab Number:** L2255277

**Report Date:** 10/10/22

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Fixed Gases by GC - Mansfield Lab Associated sample(s): 02-06 Batch: WG1696869-2								
Nitrogen	105		-		80-120	-		
Oxygen	104		-		80-120	-		
Carbon Dioxide	106		-		80-120	-		
Methane	114		-		80-120	-		
Carbon Monoxide	111		-		80-120	-		
Helium	99		-		80-120	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** BEACON ISLAND SITE

**Project Number:** CD10428

**Lab Number:** L2255277

**Report Date:** 10/10/22

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01,07-08 Batch: WG1697529-2								
Nitrogen	106		-		80-120	-		
Oxygen	106		-		80-120	-		
Carbon Dioxide	107		-		80-120	-		
Methane	115		-		80-120	-		
Carbon Monoxide	111		-		80-120	-		
Helium	98		-		80-120	-		



## Lab Duplicate Analysis

Batch Quality Control

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2255277

Report Date: 10/10/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Fixed Gases by GC - Mansfield Lab	Associated sample(s): 02-06	QC Batch ID: WG1696869-10	QC Sample: L2255277-03	Client ID: CD10428SG03		
Methane	ND	ND	%	NC		5
Fixed Gases by GC - Mansfield Lab	Associated sample(s): 02-06	QC Batch ID: WG1696869-11	QC Sample: L2255277-04	Client ID: CD10428SG04		
Methane	ND	ND	%	NC		5
Fixed Gases by GC - Mansfield Lab	Associated sample(s): 02-06	QC Batch ID: WG1696869-12	QC Sample: L2255277-05	Client ID: CD10428SG05		
Methane	ND	ND	%	NC		5
Fixed Gases by GC - Mansfield Lab	Associated sample(s): 02-06	QC Batch ID: WG1696869-13	QC Sample: L2255277-06	Client ID: CD10428SG06		
Methane	ND	ND	%	NC		5
Fixed Gases by GC - Mansfield Lab	Associated sample(s): 02-06	QC Batch ID: WG1696869-5	QC Sample: L2254083-01	Client ID: DUP Sample		
Methane	ND	ND	%	NC		5
Fixed Gases by GC - Mansfield Lab	Associated sample(s): 02-06	QC Batch ID: WG1696869-6	QC Sample: L2254083-02	Client ID: DUP Sample		
Methane	24.2	24.2	%	0		5
Fixed Gases by GC - Mansfield Lab	Associated sample(s): 02-06	QC Batch ID: WG1696869-7	QC Sample: L2254083-03	Client ID: DUP Sample		
Methane	73.2	73.2	%	0		5
Fixed Gases by GC - Mansfield Lab	Associated sample(s): 02-06	QC Batch ID: WG1696869-9	QC Sample: L2255277-02	Client ID: CD10428SG02		
Methane	ND	ND	%	NC		5
Fixed Gases by GC - Mansfield Lab	Associated sample(s): 01,07-08	QC Batch ID: WG1697529-4	QC Sample: L2255277-07	Client ID: CD10428SG07		
Methane	ND	ND	%	NC		5

## Lab Duplicate Analysis

Batch Quality Control

Project Name: BEACON ISLAND SITE

Project Number: CD10428

Lab Number: L2255277

Report Date: 10/10/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01,07-08 QC Batch ID: WG1697529-5 QC Sample: L2255277-08 Client ID: CD10428SG08						
Methane	ND	ND	%	NC		5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01,07-08 QC Batch ID: WG1697529-6 QC Sample: L2255277-01 Client ID: CD10428SG01						
Methane	ND	ND	%	NC		5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01,07-08 QC Batch ID: WG1697529-7 QC Sample: L2253217-01 Client ID: DUP Sample						
Oxygen	3.29	3.14	%	5		5
Carbon Dioxide	22.4	22.4	%	0		5
Methane	36.9	37.0	%	0		5
Carbon Monoxide	ND	ND	%	NC		5
Helium	ND	ND	%	NC		5

Project Name: BEACON ISLAND SITE

Serial\_No:10102216:29  
Lab Number: L2255277

Project Number: CD10428

Report Date: 10/10/22

### Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2255277-01	CD10428SG01	01951	Flow 3	10/04/22	401524		-	-	-	Pass	18.0	17.4	3
L2255277-01	CD10428SG01	332	2.7L Can	10/04/22	401524	L2253683-01	Pass	-29.7	-2.1	-	-	-	-
L2255277-02	CD10428SG02	02123	FLOW 3	10/04/22	401524		-	-	-	Pass	18.0	17.2	5
L2255277-02	CD10428SG02	529	2.7L Can	10/04/22	401524	L2253683-01	Pass	-29.8	-6.4	-	-	-	-
L2255277-03	CD10428SG03	0971	Flow 3	10/04/22	401524		-	-	-	Pass	18.0	18.4	2
L2255277-03	CD10428SG03	3880	2.7L Can	10/04/22	401524	L2253683-01	Pass	-29.3	-2.9	-	-	-	-
L2255277-04	CD10428SG04	01716	Flow 3	10/04/22	401524		-	-	-	Pass	18.0	17.9	1
L2255277-04	CD10428SG04	3405	2.7L Can	10/04/22	401524	L2253683-01	Pass	-29.8	-4.8	-	-	-	-
L2255277-05	CD10428SG05	01386	Flow 3	10/04/22	401524		-	-	-	Pass	18.0	18.5	3
L2255277-05	CD10428SG05	2223	2.7L Can	10/04/22	401524	L2253683-01	Pass	-29.9	-8.1	-	-	-	-
L2255277-06	CD10428SG06	01806	Flow 3	10/04/22	401524		-	-	-	Pass	18.0	17.8	1
L2255277-06	CD10428SG06	3215	2.7L Can	10/04/22	401524	L2253683-01	Pass	-29.6	-4.3	-	-	-	-
L2255277-07	CD10428SG07	01698	Flow 3	10/04/22	401524		-	-	-	Pass	18.0	17.6	2
L2255277-07	CD10428SG07	3034	2.7L Can	10/04/22	401524	L2253683-01	Pass	-29.9	-7.1	-	-	-	-
L2255277-08	CD10428SG08	0271	Flow 4	10/04/22	401524		-	-	-	Pass	18.0	17.6	2



**Project Name:** BEACON ISLAND SITE

**Project Number:** CD10428

Serial\_No:10102216:29  
**Lab Number:** L2255277

**Report Date:** 10/10/22

**Canister and Flow Controller Information**

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2255277-08	CD10428SG08	1731	2.7L Can	10/04/22	401524	L2253683-01	Pass	-29.8	-8.5	-	-	-	-

**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2253683  
**Report Date:** 10/10/22

### Air Canister Certification Results

Lab ID: L2253683-01  
 Client ID: CAN 3756 SHELF 2  
 Sample Location:

Date Collected: 09/28/22 15:00  
 Date Received: 09/29/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 09/29/22 18:45  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2253683  
**Report Date:** 10/10/22

### Air Canister Certification Results

Lab ID: L2253683-01  
 Client ID: CAN 3756 SHELF 2  
 Sample Location:

Date Collected: 09/28/22 15:00  
 Date Received: 09/29/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2253683  
**Report Date:** 10/10/22

### Air Canister Certification Results

Lab ID: L2253683-01  
 Client ID: CAN 3756 SHELF 2  
 Sample Location:

Date Collected: 09/28/22 15:00  
 Date Received: 09/29/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2253683  
**Report Date:** 10/10/22

### Air Canister Certification Results

Lab ID: L2253683-01  
 Client ID: CAN 3756 SHELF 2  
 Sample Location:

Date Collected: 09/28/22 15:00  
 Date Received: 09/29/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1





**Project Name:** BATCH CANISTER CERTIFICATION  
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**Lab Number:** L2253683  
**Report Date:** 10/10/22

### Air Canister Certification Results

Lab ID: L2253683-01  
 Client ID: CAN 3756 SHELF 2  
 Sample Location:

Date Collected: 09/28/22 15:00  
 Date Received: 09/29/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	94		60-140



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2253683  
**Report Date:** 10/10/22

### Air Canister Certification Results

Lab ID: L2253683-01  
 Client ID: CAN 3756 SHELF 2  
 Sample Location:

Date Collected: 09/28/22 15:00  
 Date Received: 09/29/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 09/29/22 18:45  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2253683  
**Report Date:** 10/10/22

### Air Canister Certification Results

Lab ID: L2253683-01  
 Client ID: CAN 3756 SHELF 2  
 Sample Location:

Date Collected: 09/28/22 15:00  
 Date Received: 09/29/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2253683  
**Report Date:** 10/10/22

### Air Canister Certification Results

Lab ID: L2253683-01  
 Client ID: CAN 3756 SHELF 2  
 Sample Location:

Date Collected: 09/28/22 15:00  
 Date Received: 09/29/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	96		60-140



**Project Name:** BEACON ISLAND SITE**Lab Number:** L2255277**Project Number:** CD10428**Report Date:** 10/10/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
NA	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2255277-01A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30),FIXGAS(30)
L2255277-02A	Canister - 2.7 Liter	NA	NA			Y	Absent		FIXGAS(30),TO15-LL(30)
L2255277-03A	Canister - 2.7 Liter	NA	NA			Y	Absent		FIXGAS(30),TO15-LL(30)
L2255277-04A	Canister - 2.7 Liter	NA	NA			Y	Absent		FIXGAS(30),TO15-LL(30)
L2255277-05A	Canister - 2.7 Liter	NA	NA			Y	Absent		FIXGAS(30),TO15-LL(30)
L2255277-06A	Canister - 2.7 Liter	NA	NA			Y	Absent		FIXGAS(30),TO15-LL(30)
L2255277-07A	Canister - 2.7 Liter	NA	NA			Y	Absent		FIXGAS(30),TO15-LL(30)
L2255277-08A	Canister - 2.7 Liter	NA	NA			Y	Absent		FIXGAS(30),TO15-LL(30)

**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

## 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: Data Usability Report



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

### 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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



**Project Name:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

#### **Data Qualifiers**

- ND** - Not detected at the reporting limit (RL) for the sample.
- 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:** BEACON ISLAND SITE  
**Project Number:** CD10428

**Lab Number:** L2255277  
**Report Date:** 10/10/22

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.
- 51 Determination of Carbon Dioxide, Methane, Nitrogen and Oxygen from Stationary Sources. Method 3C. Appendix A, Part 60, 40 CFR (Code of Federal Regulations). June 20, 1996.

## 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

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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, NO<sub>2</sub>, NO<sub>3</sub>.

### 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

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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, SM4500CI-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, **LCHAT 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**

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

# AIR ANALYSIS



**CHAIN OF CUSTODY**

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

PAGE \_\_\_\_\_ OF \_\_\_\_\_

Date Rec'd in Lab: 10/7/22

ALPHA Job #: L2255277

**Client Information**

Client: Atlantic Testing Laboratories  
 Address: 6085 Court Street  
 Road Syracuse NY 13206  
 Phone: (315) 699-5281  
 Fax:  
 Email: labsCT@atlantictesting.com

**Project Information**

Project Name: Beacon Island Site  
 Project Location: Beacon Island, NY  
 Project #: CD10428  
 Project Manager: Cheyenne Dashnaw  
 ALPHA Quote #:

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)  
 Date Due: Time: 48hrs

**Report Information - Data Deliverables**

FAX  
 ADEx  
 Criteria Checker:  
 (Default based on Regulatory Criteria Indicated)  
 Other Formats:  
 EMAIL (standard pdf report)  
 Additional Deliverables:  
 Report to: (if different than Project Manager)

**Billing Information**

Same as Client info PO #:

**Regulatory Requirements/Report Limits**

State/Fed	Program	Res / Comm

These samples have been previously analyzed by Alpha  
 Other Project Specific Requirements/Comments:  
 Project-Specific Target Compound List:

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION					Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	ANALYSIS				Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum						TO-15 - VOC	TO-15 SIM	APH <small>(Subtract Non-petroleum HCs)</small>	Fixed Gases <small>Sulfides &amp; Mercaptans by TO-15</small>	
55277-01	CD10428SG01	10/5/22	1030	1245	-30.28	-2.85	SV	JL	2.7	332	01951	X			X	
-02	CD10428SG02	10/5/22	1057	1257	-30.39	-7.50	SV	JL	2.7	529	02123	X			X	
-03	CD10428SG03	10/5/22	1123	1320	-29.88	-3.69	SV	JL	2.7	3880	0974	X			X	
-04	CD10428SG04	10/5/22	1155	1400	-30.18	-5.40	SV	JL	2.7	3405	01716	X			X	
-05	CD10428SG05	10/5/22	1245	1445	-30.08	-8.87	SV	JL	2.7	2223	01880	X			X	
-06	CD10428SG06	10/5/22	1430	1630	-29.34	-4.50	SV	JL	2.7	3215	01906	X			X	
-07	CD10428SG07	10/5/22	1515	1715	-30.09	-7.76	SV	JL	2.7	3034	01698	X			X	
-08	CD10428SG08	10/5/22	1610	1800	-30.07	-9.46	SV	JL	2.7	1731	0274	X			X	

M. G. 10/7/22 06:20  
 10/7/22 06:40

JL

**\*SAMPLE MATRIX CODES**

AA = Ambient Air (Indoor/Outdoor)  
 SV = Soil Vapor/Landfill Gas/SVE  
 Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
R. Marks 10/7/22 0500	10/5/22/2115	Andrew Amell A.H.L.	10.5.22 / 2115
Jordan Stachowiak	10.06.22/0845	HAL Security Storage	10/06/22 / 0845
Andrew Amell A.H.L.	10/06/22 1003	AHL Ch. Stahl	10/06/22 1003
Securing Storage	10/06/22 1003		
Ch. Stahl	10/06/22 1003		
			10/7/22 0010

**ATTACHMENT D**  
**SUMMARY OF LABORATORY ANALYSIS RESULTS**

**Table D-1**  
**Soil Vapor Samples**  
**Port of Albany Expansion Project – Beacon Island Site**  
**Bethlehem, Albany County, New York**

Date Sampled	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22	10/05/22
Sample Location	B-2	B-4	B-7	B-10	B-13)	B-16	B-17	B-26
Sample Depth	3.3-5'	3.3-5'	3.3-5'	3.3-5'	3.3-5'	3.3-5'	3.3-5'	3.3-5'
<b>VOC (ug/m<sup>3</sup>)</b>								
Dichlorodifluoromethane	2.72	2.95	2.52	3.37	3.02	ND	2.42	2.44
Chloromethane	ND	0.566	ND	0.475	ND	ND	ND	0.240
1,3-Butadiene	ND	ND	ND	ND	3.69	ND	0.454	ND
Ethanol	ND	ND	ND	ND	ND	47,100	35.2	27.3
Acetone	5.91	7.22	7.17	11.9	43.0	ND	16.2	74.6
Trichlorofluoromethane	2.26	2.50	1.30	1.40	1.39	ND	1.30	2.08
Isopropanol	39.3	45.2	16.2	9.07	16.0	ND	6.46	42.3
Tertiary butyl alcohol	2.59	2.57	3.67	ND	ND	ND	ND	5.27
Carbon disulfide	2.58	2.30	2.04	3.89	60.1	83.8	3.21	1.08
2-Butanone	ND	ND	1.73	4.98	9.29	ND	2.98	12.4
Ethyl acetate	3.25	ND	ND	ND	ND	ND	ND	22.3
Chloroform	<b>46.9</b>	<b>30.9</b>	13.0	<b>20.1</b>	4.26	ND	<b>22.0</b>	<b>46.5</b>
n-Hexane	ND	ND	ND	1.39	18.9	76.8	2.20	2.45
1,1,1-Trichloroethane	4.35	5.33	1.59	5.28	ND	ND	ND	6.55
Benzene	ND	ND	ND	0.687	24.2	ND	0.652	3.11
Cyclohexane	ND	0.926	ND	ND	34.3	ND	ND	0.809
Trichloroethene	ND	ND	<b>4.79</b>	1.16	ND	ND	ND	ND
2,2,4-Trimethylpentane	ND	ND	ND	ND	15.0	ND	ND	ND
Heptane	ND	ND	ND	0.848	9.51	ND	3.43	2.02
Toluene	ND	ND	ND	1.15	28.6	ND	0.806	1.39
Ethylbenzene	ND	ND	ND	ND	6.69	ND	ND	ND
Xylene	ND	ND	ND	2.14	26.41	ND	2.29	ND
1,3,5-Trimethylbenzene	ND	ND	ND	ND	2.16	ND	ND	ND
1,2,4-Trimethylbenzene	ND	ND	ND	ND	4.92	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	1.94
All other Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND
<b>Methane (ug/m<sup>3</sup>)</b>								
Methane	ND	ND	ND	ND	ND	ND	ND	ND
<b>NOTES:</b>								
ug/m <sup>3</sup> = micrograms per cubic meter								
ND = Not detected above respective laboratory method detection limit								

**APPENDIX C**

**SWPPP**



# **STORMWATER POLLUTION PREVENTION PLAN (SWPPP)**

**For**

## **MARMEN-WELCON TOWER MANUFACTURING PLANT**

**PREPARED FOR:**



ALBANY PORT DISTRICT COMMISSION  
106 SMITH BOULEVARD  
ALBANY, NY 12202  
(518) 463-8763  
[www.portofalbany.us](http://www.portofalbany.us)

**PREPARED BY:**



60 RAILROAD PLACE, SUITE 402  
SARATOGA SPRINGS, NY 12866

**PRELIMINARY SITE PLAN  
SUBMISSION**

**AUGUST 2021**

**UPDATED – OCTOBER 2021**

**UPDATED – JANUARY 2022**

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## APPENDIX LIST

APPENDIX A – LOCATION MAP

APPENDIX B – EROSION & SEDIMENT CONTROL PLANS, DETAILS, & NOTES

APPENDIX C – DRAINAGE DESIGN REPORT

APPENDIX D – MAINTENANCE INSPECTION CHECKLISTS

APPENDIX E – SPDES PERMIT

APPENDIX F – New York State Historic Preservation Office (SHPO) “No Effect Letter”

APPENDIX G – DRAFT WHARF AND DREDGING E&SC PLANS

APPENDIX H – SOIL MANAGEMENT PLAN

APPENDIX I – SEDIMENT BASIN CALCULATIONS

APPENDIX J – DRAFT NOTICE OF INTENT (NOI)



## 1. INTRODUCTION

A stormwater management assessment has been conducted for the proposed project in order to protect the waters of the State of New York from the adverse impacts of stormwater runoff. This report presents an analysis of the project in accordance with the *New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001*. A separate Drainage Design Report (Appendix C) has been developed to address the *New York State Stormwater Management Design Manual* (“The Manual”). As required, the Stormwater Pollution Prevention Plan is designed, where appropriate, to incorporate green infrastructure techniques that preserve natural resources and utilize the existing hydrology of the site, provide runoff reduction practices, water quality treatment practices, apply volume and peak control practices for channel protection, overbank flood control, and extreme flood control as appropriate.

In accordance with Appendix B, Table 2 of the SPDES General Permit for Construction Activity, GP-0-20-001, industrial facilities that involve a soil disturbance of one or more acres require the preparation of a full SWPPP that includes post-construction stormwater management practices. In total, approximately 69.3 acres of soil disturbance is expected during the construction of this project. Therefore, this project includes the development of erosion and sediment controls, green infrastructure site planning techniques, runoff reduction volume practices and post-construction stormwater management practices.

The general contractor and subcontractors performing any activity that involves soil disturbance will be required to comply with the terms and conditions of the SWPPP for the project identified as a condition of authorization to discharge stormwater. The Contractor shall provide signed certifications (Form CONR 5) for itself and all applicable subcontractors at the preconstruction meeting. These signed certifications shall be included as part of the SWPPP. The SPDES General Permit and SWPPP must be kept on file at the Project Field Office. As required by the conditions described in the SPDES general permit, the SWPPP shall be kept current, and updates will be made to reflect changes in the design, construction and operation, or maintenance of the project.

The complete set of construction drawings and specifications are provided as separate documents; however, they should be considered an integral component of the SWPPP and are referenced throughout this document. The applicant must retain all documentation for 5 years after NYSDEC accepts the Notice of Termination (NOT).

### 1.1 Scope of the Project

The proposed development is an offshore wind (OSW) manufacturing operation that will produce wind turbine tower components. The site development includes 603,791 +/- square feet of OSW manufacturing spread over four (4) buildings with ancillary impervious areas including parking for automobiles and trucks, roadway, bridge, and a maritime wharf. The remainder of the site will be used for tower storage and be made up of compacted gravel. There will also be small pervious areas of grass and unaltered brush and trees.

### 1.2 Location of Project

The Project is situated on 81.62 acres of land on Beacon Island (“Expansion Site”), located at the confluence of the Normans Kill and Hudson River. The project also includes development within 4.4 acres of the adjoining parcel owned by National Grid, the extension and improvement of Normanskill Street (Normanskill St. Improvements) and widening of Rt. 144 (Offsite Improvements). The project owner,

Albany Port District Commission (APDC), is proposing to develop the vacant parcels of land (tax parcels 98.00-2-10.23 and 98.01-2-1.0) to expand the existing Port of Albany in the Town of Bethlehem, Albany County, New York. Refer to the Location Map in Appendix A.

The project is not located within a TMDL and does not discharge into a 303(d) listed waterbody.

**Table 1 - Location Table**

Approximate Coordinate Position @ Center of Project	
Latitude	42° 36' 10.8" N
Longitude	73° 45' 57.0" W

### 1.3 Project Type and Size

The project is a new development construction project that has a disturbance area of approximately 72.7 +/- acres. The new impervious area is approximately 65.9 acres.

### 1.4 Project Description

The proposed project will include development of an OSW tower manufacturing (Marmen-Welcon) facility consisting of five (5) separate buildings totaling up to 625,539 +/- square feet of floor space. The following is a breakdown of the function and size of each building:

- Building A Plate Preparation & Welding (299,250 SF)
- Building B Welding Finishing (111,023 SF)
- Building C Blast Metallization Plant (131,968 SF)
- Building D Internal Assembly Finishing (61,550 SF)
- Building E Material Receiving (21,748 SF)

Tower production will occur within four (4) buildings (Buildings A-D) at the main facility on the Port Expansion property located in the Town of Bethlehem. The 5<sup>th</sup> building (Building E) will be located at 700 Smith Boulevard within the existing Port District in the City of Albany. A proposed gated bridge over the Normans Kill will provide a truck transportation route in and out of the main facility, by connecting Beacon Island and the 14.7-acre offsite parcel at 700 Smith Boulevard. In conjunction with the proposed bridge, Normanskill street is to be extended from its existing end point to the bridge. The existing pavement will be improved to accommodate the proposed trucking route. River Road (Rt. 144) will be widened to accommodate the employee entrance. Employee parking will be situated on the adjoining land owned by National Grid with access from River Road. A proposed 500 LF wharf and associated dredging along the Hudson River will be used to load and ship completed tower sections. A separate stormwater analysis and SWPPP has been prepared for the 14.7-acre Building E site at 700 Smith Boulevard and the portion of Normanskill St. located in the City of Albany, as the sites are separated by approximately 1-mile and are under separate MS4 jurisdictions.

The purpose of this report is to assess the stormwater quality, quantity, and erosion and sediment control for the development of the site. This report has been developed in accordance with the New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity, GP-0-20-001 (Permit) and the NYSDEC Stormwater Management Design Manual (The Manual). The project site is located within the Town of Bethlehem, Albany County, New York, which is an MS4 community, requiring this report and project to receive approval from the Town.

The soil disturbance area addressed in this report is contained within the Town of Bethlehem. This report does not include coverage for work within the Mean High Water (MHW) elevation of the Hudson River or the Normans Kill. Work within the MHW line will be covered under a separate permit.

The total disturbance area is 72.7 +/- acres and includes the Expansion Site, Normanskill St. Improvements and Offsite Improvement. The existing impervious area is approximately 5.16 +/- acres, 7.09% of the total disturbance area. The proposed site development will consist of 65.9 +/- acres of impervious cover, 90.6% of the total disturbance area.

Due to the amount of soil disturbance proposed for this project, a 5-acre disturbance waiver will be requested. The 5-acre waiver request along with all required documentation will be submitted to the MS4 (Town of Bethlehem) as a separate document from the SWPPP.

### 1.5 Cultural Resources

A Supplemental Environmental Impact Statement (SEIS) has been developed as part of the SEQR process for the Port of Albany Expansion Project. A SHPO review was conducted, and the current status reflects "No Adverse Effect". The SHPO review letter, dated September 13, 2019, is included as Appendix F to this SWPPP. An additional SEIS has been submitted to the lead agency for the specific tenant on the site Marmen-Welcon.

### 1.6 On-site Wetlands

As part of the Draft Generic Environmental Impact Statement (DGEIS) and SEIS, impact to aquatic resources, including wetlands, were evaluated. The New York State Freshwater Wetland and Tidal Wetlands mapping of the project site indicates there are no NYSDEC jurisdictional wetlands within or adjacent to the project area. Review of USFWS National Wetlands Inventory (NWI) mapping of the project site indicates that the majority of the project area is mapped as palustrine emergent wetlands (PEM) and palustrine forested wetlands (PFO). It should be noted that NWI mapping does not have any regulatory consequence, but rather indicates areas that may meet federal wetland criteria as identified by the USFWS using aerial photography.

A wetland delineation was conducted in April 2019 by McFarland Johnson for the FGEIS. The results of the delineation indicated that there are 8 freshwater wetlands located within the project limits. These wetlands are hereafter referred to as Wetlands 1, 3, 4, 5, 6, 7, 8, and 9. Wetlands within the original study are totaled approximately 2.33 acres. A Supplemental Wetland Delineation was performed by MJ in April 2021 of the 18.22 acres on the National Grid Parcel. One contiguous wetland, comprising a total of approximately 7.13 acres, was delineated within the 18.22-acre area. The delineated wetland represents an extension of the 2019 wetland delineation and previously identified as Wetland 1. Wetland 1 drains in a northerly direction into 40-inch corrugated metal pipe (CMP) which discharges directly to the Normans Kill.

The Project will result in direct impacts to 0.81 acres of Wetland 1 located in Beacon Island (original Project Area) and 0.01 acres of direct impact to Wetland 1 on National Grid property for the construction of a retaining wall. In addition, there is a 0.04-acre impact to Wetland 9 for the bridge over the Normans Kill and a 0.02-acre impact to Wetland 7 for roadway improvements. There will also be approximately 0.33 acres of temporary impacts to wetlands during construction. Total permanent wetland impacts are estimated to be approximately 0.86 acre.

Compensatory wetland mitigation will be satisfied through a federally approved In-Lieu Fee Mitigation Program or off-site mitigation bank (The Wetland Trust). Mitigation in accordance with USACE rules and regulations will ensure no net loss of wetlands and will be included as part of the Joint application Permit submitted to the USACE and NYSDEC.

## 2. PROJECT MAPS AND PLANS

### 2.1 Location Map

See Appendix A

### 2.2 Soil Maps

See Drainage Design Report (Appendix C)

### 2.3 Erosion and Sediment Control Plans

See Appendix B

### 2.4 Existing and Proposed Subcatchment Maps

See Drainage Design Report (Appendix C)

## 3. PROJECT SOILS

### 3.1 NRCS Soil Map

See Drainage Design Report (Appendix C)

### 3.2 Soil Types

The following soil type(s) and hydrologic group(s) are present within the project area of disturbance:

**Table 2 – Soil Types**

Symbol	Soil Name	Hydrologic Soil Group
HuE	Hudson silt loam, 25 to 45 percent slopes	C/D
NrD	Nassau very channery silt loam, hilly, very rocky	D
Ug	Udorthents, loamy	A
Ur	Urban land	
Wo	Wayland soils complex, non-calcareous substratum, 0 to 3 percent slopes, frequently flooded	B/D

### 3.3 Discussion of Soil Characteristics and Soil Erosion Hazard Potential

According to the Natural Resources Conservation Service (NRCS) web soil survey, there are five (5) mapped soil units identified within the project boundary (see Appendix E). The majority of the soil at the

expansion site falls within the hydrologic soil group B/D. The first letter corresponds to drained soil's properties under drained conditions and the second to saturated conditions. Group B soils have moderate infiltration and runoff rates while group D have a low infiltration rate and a high runoff rate. The soils with dual group identifiers have been modeled with the more conservative of the two, in this case a D soils group. Most of the soil adjacent to Normanskill Street is within soil group A. Group A soils have a high infiltration rate.

Geotechnical studies have been undertaken to evaluate the subsurface conditions of the site. These investigations have been summarized in the following reports:

- *Preliminary Geotechnical Evaluation and Interpretive Report*, CME Associates, Inc., April 5, 2017
- *Supplemental Geotechnical Report*, Dente Group, July 20, 2017

Copies of these reports were included in the TOWN OF BETHLEHEM PLANNING BOARD, DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT For ALBANY PORT DISTRICT COMMISSION PORT OF ALBANY EXPANSION PROJECT, Appendix E.

- *Draft Geotechnical Engineering Report*, Terracon, October 15, 2021

A copy of this reports is included in the TOWN OF BETHLEHEM PLANNING BOARD, SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT For ALBANY PORT DISTRICT COMMISSION PORT OF ALBANY EXPANSION PROJECT.

Based on these previous investigations, the subsurface conditions of the Expansion site are generally characterized by historic fills of various depths overlying, in sequence with depth; river sediments, alluvial sands, glaciolacustrine silt/ clay, glacial till, and shale bedrock. The fill was noted at specific boring locations ranging from 6 to 23 feet below existing grade. The fill material is characterized as a random landfill deposit containing natural and solid waste deposits such as, but not limited to, foundry sand waste, sand, silt, coal ash, gravel, and organic matter. A predominant component of the fill was reported as coal ash.

Shale bedrock was found beneath the glacial till soils at select boring locations. The depth to rock ranged from approximately 61 feet below grade near the northwest portion of the site, to greater than 148 feet at the southeast portion of the site. The rock depths appear shallowest on the north and west sides of the site and increase to the east towards the Hudson River and in a south direction across the site. Based on the New York State Museum and Science Service's Geologic Map of New York: State Hudson-Mohawk Sheet, and the geotechnical rock core samples, the bedrock appears to be consistent with the Normans kill Shale Formation.

According to the geotechnical reports, shallow groundwater was observed at depths ranging from approximately 1.5 to 13.7 feet below existing grade. However, due to the subsurface conditions, the shallower observations could be representative of perched groundwater zones due to discontinuous impermeable layers. Shallow groundwater fluctuations should be expected to occur at this site depending on several factors such as rainfall, seasonal changes, prevailing climate, ambient weather conditions, and the tidal influences of the Hudson River.

Historically, the project site was composed of small islands and river channels subject to natural shifts due to flows associated with the Hudson River and the former Island Creek, a side channel of the Hudson River. Island Creek historically flowed along the western side of the site through the current power line corridor and discharged to the Hudson River at the southern end of the site. Based on available mapping, sometime

between 1936 and 1961, Island Creek channel was diverted at the north end of the site directly to the Hudson River, whereupon it was referred to solely as Normans Kill, the main tributary to this former channel. The site was subject to historic filling operations to create usable lands and a portion of the site was operated as a coal ash (fly ash) disposal site by Niagara Mohawk from approximately 1952 to 1970. As such, there are large areas of fly ash deposits on the site that must be considered during the design and construction of the site infrastructure and stormwater management facilities. Excavated fly ash material will need to be appropriately handled and properly disposed of.

Due to the presence of fly ash on the Expansion Site, in addition to a NYSDEC SPDES, a Site Management Plan (SMP) has been prepared in accordance with 6 NYCRR Part 375 and DER Technical Guidance for Site Investigation and Remediation and submitted to the NYSDEC, Division of Environmental Remediation and the NYSDOH. The SMP includes: a Health and Safety Plan (HASP), to inform and protect the contractor and their work force; a Community Air Monitoring Plan (CAMP), to monitor and protect the surrounding communities; and an Excavation Work Plan (EWP), to direct the activities of the contractor during construction. The EWP includes a detailed description of the work to be performed, the anticipated environmental conditions, and engineering controls to mitigate the movement of fly ash. The SMP pertains only to the Expansion Site portion of the project (see Appendix H).

## 4. CONSTRUCTION PHASING

### 4.1 Sequence of Construction Activities

The Contractor's work schedule and methods shall be consistent with the SWPPP or amended SWPPP. Once approved, the progress schedule shall become a part of the SWPPP. It should be noted that there is a NYSDEC approved SMP for this site, which is included as Appendix H. Any disturbance of the site must comply with the SMP.

The following list is a suggested sequence of major construction activities for the project to meet the NYSDEC Phase II erosion control requirements:

1. Conduct a pre-construction meeting with the MS4 and Engineer to review the SWPPP.
2. Notify the NYSDEC within 14 days, and no less than 3 days, prior to commencing work activities that may affect areas of the subject site that are impacted with ash, as required by Section 3.2 of the SMP.
3. Clearly identify project work limits, identifying all areas where construction disturbance shall be permitted.
4. Install erosion control measures prior to commencing earthwork operations. Construct temporary earthen berms, diversion swales, sediment control dams and associated erosion control measures necessary to divert runoff from entering planned areas of disturbance and to protect the adjacent waterway.
5. All installed erosion and sediment control measures are to be inspected and certified as correctly installed by the owner's qualified inspector and Town of Bethlehem staff.
6. Establish temporary/permanent storm water management ponds/erosion control basins.
  - a. Consult the SMP for the appropriate measures to handle or dispose of any encountered contaminated soils.
7. Remove vegetation and dispose of off-site.
8. Strip and stockpile topsoil from proposed pavement, structural fill and cut areas (stockpile materials in locations as directed by owner's representative).



- a. Consult the SMP for appropriate measures to handle or dispose of any encountered contaminated soils.
9. Establish mass earthwork subgrade elevations.
  - a. Consult the SMP the appropriate measures to handle or dispose of any encountered contaminated soils.
10. All temporary erosion and sediment control measures as well as stockpiles are to be mulched and seeded for temporary vegetative cover immediately following grading.
11. Import the aggregate fill material to serve as a surcharge for the proposed building and concrete pad areas.
12. After surcharging compaction is completed, place fabric and geogrid on the subgrade and spread the aggregate material in layers with additional geogrid as specified.
13. Construct utility lines (water/electric/gas/communications/sanitary sewers/storm sewers), construct building and install infrastructure improvements.
14. Box out roadway and pavement areas and install concrete curbing.
15. Construct asphalt pavement section, up to binder course.
16. Fine grade and spread topsoil, install landscaping plantings and hardscapes, site amenities and permanent seeding.
17. Town of Bethlehem (MS4) shall conduct a site inspection to determine (1) that the site has achieved 80% stabilization and (2) the installed stormwater facilities are operational.
18. Remove temporary erosion and sediment control features upon establishment of permanent ground cover and inspection/approval from a Town official or representative.
19. Notify owner's representative of completion of final site stabilization.
20. File Notice of Termination.

## 5. EROSION AND SEDIMENT CONTROL MEASURES

### 5.1 Erosion Control Plan

An erosion control plan has been developed in accordance with the "New York Standards and Specifications for Erosion and Sediment Control". The erosion control plan employs permanent and temporary erosion and sediment control methods including silt fence, erosion control matting, construction entrances, and other appropriate measures. It should be noted that there is a NYSDEC approved SMP for the Expansion Site, which is included as Appendix I. Any disturbance of this area must comply with the SMP. As stated in Section 3.2 of the SMP, NYSDEC must be notified within 14 days, and no less than 3 days, prior to commencing work activities that may affect areas of the subject site that are impacted with ash.

#### 5.1.1 Temporary Surface Stabilization

All work and prior NYSDEC notification shall be in accordance with the SMP. Areas within the project limits that may be disturbed more than once during the construction activities will be stabilized using temporary seed and mulch item or as directed by the Engineer. Areas remaining unpaved and undisturbed for more than seven (7) days during construction operations shall be stabilized temporarily. Other areas that might need to be stabilized temporarily will be at the discretion of the Engineer.

#### 5.1.2 Drainage Pipe Inlet / Outlet Stabilization

As part of the permanent erosion control measure, the inlet and outlet of the culvert pipes will be

provided with either stone riprap apron or an apron consisting of erosion control product with vegetation to provide the required erosion control which blends in with the surrounding natural features and topography. The location and type of stabilization to be provided is shown on project plans.

#### *5.1.3 De-watering*

Any groundwater that is suspected of being contaminated shall be handled in accordance with Section 4.2 of the SMP. If required, de-watering of miscellaneous areas within the site will be performed utilizing a pump and filter bag system. The filter bags should be made of non-woven geotextile material capable of trapping particles larger than 150 microns. Filter bags should be replaced when they are half full or a no longer functioning per the manufacturer's requirements. Filter bags should be located in a well vegetated/grassy area and discharge into stable erosions resistant areas. Where this is not possible a geotextile flow path should be established. Bags shall not be placed on slopes greater than 5%. The pump discharge hose shall be inserted into the bags in the manner specified by the manufacturer and securely clamped. Pumping rate shall not be greater than 750 GPM or ½ the maximum specified by the manufacturer, whichever is less. Pump intakes shall be floated and screened.

#### *5.1.4 Construction Entrance*

As required, at least one (1) stabilized construction entrance will be constructed to access the Contractors Staging/Storage Area. This entrance/area shall conform to the details. See plans for location of construction entrance(s).

#### *5.1.5 Concrete Truck Washout / Concrete Batch Plant Protection*

As required, a temporary excavated or above ground lined pit where concrete truck mixers and equipment can be washed after their loads have been discharged, to prevent highly alkaline runoff from entering storm drainage systems or leaching into soil shall be constructed. See plans for location of concrete washout. If a concrete batch plant is installed at the site, temporary containment to prevent discharge of runoff from entering storm drainage systems or leaching into soil shall be constructed.

#### *5.1.6 Permanent Stabilization*

Stabilizing of the graded surfaces will be accomplished by using various seed mix for vegetation.

#### *5.1.7 Dust Control*

Dust shall be controlled and monitored in accordance with Section 4.3 of the SMP. The contractor will be required to minimize dust generation during the construction activities. Provisions such as applying water on haul roads, wetting equipment, and excavation faces, spraying water on buckets during excavation and dumping, hauling materials in properly tarped or watertight containers, restricting vehicle speeds to 10 mph, covering excavated areas and material after excavation activity ceases, and reducing the excavation size and/or number of excavations have proven effective in dust control.

#### *5.1.8 Silt Fence*

Silt fence will be placed per the Erosion and Sediment Control Plans, down slope of all disturbed areas, soil stockpiles, and spoil areas. Along the bank of the Normans Kill, two layers of silt fence are to be installed due to the proximity to the Mean Higher High Water (MHHW) level. The purpose of the silt fence is to remove sediment from sheet flow in these areas. Silt fence shall remain in place and functional until the contributing area has been permanently stabilized. Sediment socks or mulch dikes may be used in lieu of silt fence, where approved by the Engineer of Record. Erosion Control shall be in accordance with the SMP.



### 5.1.9 Temporary Sediment Basins

Temporary sediment basins have been designed to store sediment runoff from the Expansion Site. Basin #1 will be converted into a permanent stormwater quality pond. All basins have been designed in accordance with Section 5 of the NYS Standards and Specifications for Erosion and Sediment Control (Blue Book). Calculations for the basins are included as Appendix I. Locations and a detail of the basins are included in the E&SC Plans (Appendix B).

### 5.1.10 Weekly Inspections

A qualified inspector shall conduct site inspections at least once every seven (7) calendar days. After a 5-acre waiver is granted; site inspections shall occur at least twice every seven (7) calendar days while there are more than 5 acres of soil disturbance. The qualified inspector shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved final stabilization, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site. The qualified construction inspector shall also prepare an inspection report after every inspection. Complete inspection and maintenance requirements can be found in Part IV of the SPDES General Permit GP-0-20-001 (Appendix E).

### 5.1.11 Final Inspection

Prior to the project being finally accepted, it shall be inspected for any evidence of erosion or slope failure. If any such condition becomes apparent upon final inspection, temporary soil erosion and sediment controls shall be installed immediately as directed by the Engineer. The situation shall be corrected per a schedule agreed to by the MS4 (Town of Bethlehem), NYSDEC, Owner, and the Contractor.

The Erosion Control Plans are included in Appendix B.

### 5.1.12 Wharf E&SC

Erosion and sediment control measures associated with the construction of the wharf and dredging of the Hudson River are to be designed and approved prior to disturbance below the Mean High High Water (MHHW) elevation. These E&SC measures are being designed in conjunction with the NYSDEC, USACE and other State agencies through a separate permitting process. All additional permits required for the wharf and dredging will also be in place prior to disturbance below MHHW. Draft conceptual E&SC Plans associated with the wharf construction and dredging are included in Appendix G.

## 5.2 Permanent Erosion and Sediment Control Measures

**Table 3 – List of Permanent Erosion & Sediment Control Measures**

Permanent Feature	Converted Temporary Practice?	Location: ESC Plan	Receiving Waterbody Protected (where applicable)
Riprap outlet protection	Yes	See Plans	Hudson River, Normans Kill
Soil Stabilization	Yes	See Plans	Hudson River, Normans Kill
Check Dam	Yes	See Plans	N/A
Diversion Dike	Yes	See Plans	N/A

### 5.3 Installation Sequence

See the intended sequence of construction activities noted in Section 4 above.

### 5.4 Maintenance Schedule

The Contractor is required to inspect all E&SC devices in their active work area daily and repair any deficiencies in accordance with the SPDES permit.

### 5.5 SWPPP Implementation Responsibilities

Implementation of all E&SC devices will be by the Contractor as indicated in the contract documents.

## 6. POLLUTION PREVENTION MEASURES

### 6.1 Material Management Practices

All waste materials, including construction debris and trash that occur onsite shall be handled and disposed of in a lawful manner that is in accordance with state and local regulations. No waste material shall be buried on site.

- An effort will be made to store only enough products required for the project.
- All materials stored within the site will be stored in a neat orderly manner in their appropriate containers and if possible, an enclosed area.
- Products shall be kept in their original containers with the original manufacturer's labels. Manufacturer's recommendations for proper use and disposal shall be followed.
- Hazardous materials shall be disposed of in a lawful manner and in accordance with State and Local regulations.
- Sanitary waste will be collected from portable units as required and shall be disposed of in a lawful manner.

The following materials are expected to be on-site during construction:

- Concrete
- Asphalt
- Paints (Enamel and Latex)
- Petroleum based products
- Fertilizers
- Metal building components
- Detergents
- Cleaning Solvents
- Roofing Materials
- Tar

These materials and other materials used during construction with the potential to impact stormwater will be stored, managed, used, and disposed of in a lawful manner that minimizes the potential for releases to the environment and especially into stormwater.

Emergency contacts for the project will be posted at the project office and are included at the end of this section.

## 6.2 Spill Control Practices

The contractor will be responsible for preparing a project area specific spill control plan in accordance with Local and NYSDEC regulations. At a minimum, this plan shall:

1. Stop the source of the spill.
2. Contain the spill.
3. Reduce stormwater contact if there is a spill.
4. Dispose of contaminated material in lawful manner and in accordance with manufacturer's procedures and NYSDEC regulations.
5. Identify responsible trained personnel.
6. Ensure spill area is well ventilated.

## 6.3 General Material Handling Practices

The following general practices will be used throughout the project to reduce the potential for spills:

1. Potential pollutants will be stored and used in a manner consistent with the manufacturer's instructions in a secure location. To the extent practicable, material storage areas should not be located near storm drain inlets and should be equipped with covers, roofs, or secondary containment as needed to prevent stormwater from contacting stored materials. Potential pollutants should not be stored within 100 feet of a water course or wetland. Chemicals that are not compatible shall be stored in segregated areas so that spilled materials cannot combine and react.
2. Materials disposal will be in accordance with manufacturer's instructions and applicable local state and federal regulations.
3. Materials no longer required for construction will be removed from the site as soon as practicable.
4. Adequate garbage, construction waste, and sanitary waste handling and disposal facilities will be provided/utilized to the extent necessary to keep the site clear of obstruction and BMPs clear and functional.

## 6.4 Product Specific Practices

The following product specific practices will be followed within the project area.

### 6.4.1 *Petroleum Products*

All project related vehicles shall be monitored for leaks and receive regular preventative maintenance to reduce chance of leakage. Petroleum products shall be stored in tightly sealed containers, which are clearly labeled. Any asphalt substances used during construction shall be applied according to manufacturer's recommendations.

### 6.4.2 *Fertilizers*

Fertilizers used shall be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer shall be worked into the soil to limit exposure to stormwater. Fertilizers shall be stored in covered or other contained areas.

### 6.4.3 *Paints*

All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged into the storm sewer system but shall be disposed of according to manufacturer's instructions or State regulations.

#### 6.4.4 Concrete Trucks

Concrete Trucks shall be allowed to wash out within project areas provided that the contractor provides an area which collects and contains any concrete / slurry material washed from trucks for recovery and disposal at a later time. No concrete or slurry shall be discharged from the property at any time of construction. The concrete washout area shall conform to the detail found on sheet ESC-06 (Appendix B).

### 6.5 Spill Response

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize their migration into stormwater runoff or conveyance systems. If the release has impacted on-site stormwater, it is critical to contain the released material on-site and prevent their release into receiving waters.

If a spill of pollutants threatens stormwater on-site, the spill response procedures outline below must be implemented in a timely manner to prevent release of the pollutant:

1. The site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
2. If spills represent an imminent threat of escaping ESC facilities and entering the receiving waters, facility personnel will respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
3. Spill kits containing materials and equipment for spill response and clean-up will be maintained onsite. Each spill kit may contain:
  - o Oil absorbent pads (one bale)
  - o Oil absorbent booms (40 feet)
  - o 55-gallon drums (2)
  - o 9-mil plastic bags (10)
  - o Personal protective equipment including gloves and goggles
4. If an oil sheen is observed on surface water, absorbent pads and/or booms will be applied to contain and remove the oil. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.
5. The site superintendent, or their designee, will be responsible for completing a spill reporting form to the appropriate state or local agency.
6. Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

### 6.6 Notification

In the event of a spill, make the appropriate notification(s) consistent with the following procedures:

1. Any spill of oil which a) violates water quality standards, b) produces a sheen on a surface water, c) causes a sludge or emulsion must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.
2. Any oil, hazardous substance, or hazardous waste release which exceeds the reportable quantity must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.
3. Any spill of oil or hazardous substance to waters of the state must be reported immediately by telephone to the NYSDEC.
4. Any release of hazardous substance that may be a threat to human health or the environment must be reported to the NYSDEC immediately upon discovery.

## 7. EXISTING SITE CONDITIONS

The existing site is Beacon Island, located in the Town of Bethlehem, Albany County, New York. The site is currently vacant and consists primarily of brush and trees with a small gravel area as well as abandoned railroad tracks.

### 7.1 Existing Watershed Information

The project area is in close proximity and includes shorelines to both the Hudson River and Normans Kill, which are the receiving waterbodies for runoff from the current site.

The existing drainage condition is split up into seven (7) drainage areas. Drainage areas DR-A, DR-B and DR-F drain to analysis point #1, drainage areas DR-D and DR-E drain to analysis point #2. Drainage area DR-G drains to analysis point #3. Drainage area DR-C drains to a self-contained depression for storage.

Runoff from DR-A site travels via sheet and shallow concentrated flow directly to a wetland located in the northwest corner of the site (Wetland 1). During large storm events the wetland overflows into an existing 40" pipe with direct outlet to the Normans Kill. Analysis of the existing capacity of the outlet pipe is provided in section IV below. Runoff from areas DR-B, DR-D, DR-E, and DR-F travel via sheet and concentrated flow to low areas with eventual outfall directly to the Normans Kill and Hudson River. An approximately 30-acre internal portion of the site (DR-C) was determined to be self-contained within the site capable of storing and infiltrating the 100-year storm event. Runoff from area DR-G sheet flows to the west side of River Road and travels to a low spot adjacent to the roadway where it is stored and eventually infiltrated.

See the Drainage Design Report (Appendix C) for the Pre-Development Site Drainage Areas Map.

The existing site falls within the Normans Kill watershed of the Middle Hudson Sub-Basin for the Lower Hudson River Basin (HUC10: 0202000602, Water Index No H-221-4) which is listed as a Class C water. Neither the Normans Kill nor the Hudson River are listed in the Manual's Appendix C as a watershed where enhanced phosphorus removal standards are required. Additionally, neither are listed in the Manual's Appendix E as a watershed impaired by pollutants related to construction activity.

### 7.2 Table of Receiving Waterbodies

**Table 4: Receiving Waterbodies**

<i>Stormwater Structure</i>	<i>Receiving Waterbody</i>	<i>NYSDEC Regulated</i>
None	Hudson River	Yes – Class C
40" Outlet Pipe	Normans Kill	Yes – Class C

## 8. STORMWATER MANAGEMENT ASSESSMENT

### 8.1 Methodology

To analyze the hydrologic impacts of the proposed development, a storm water management model was developed in accordance with the Manual. HydroCAD™, by HydroCAD Software Solutions LLC was used to model both the existing and proposed conditions: soil data from the NRCS Web Soil Survey was entered into the software; land coverage areas were estimated using aerial photography and site visits; watershed areas were developed using the surveyed topography; time of concentrations were estimated using USDA, Urban Hydrology for Small Watersheds, TR-55 (TR-55) methodology; and finally runoff and routing calculations were performed using the SCS Unit Hydrograph method.

Green Infrastructure practices were designed in accordance with the Manual using the NYSDEC Runoff Reduction Worksheets available through the NYSDEC's Construction Stormwater Toolbox, available on their website.

The following general steps are followed when conducting a stormwater design:

1. **Site Planning:** The existing natural resource areas and drainage patterns including wetlands, waterways, floodplains, and soils are identified. Conservation of natural resources are maximized given the proposed site.
2. **Pre and Post-Development Conditions Analysis:** The pre and post-development stormwater runoff conditions for the 1, 10, and 100-year storm events are determined using HydroCAD (detailed HydroCAD reports for this project can be found in the Drainage Design Report, provided in Appendix C).
3. **Water Quality:** The Water Quality Volume and Runoff Reduction Volume are calculated using Chapter 4 of the Manual and Green Infrastructure Worksheets (see the Drainage Design Report, provided in Appendix C).
4. **Water Quantity:** Peak runoff and stormwater retention/detention are evaluated using the Manual.

#### 8.1.1 Water Quality Volume (WQv) / Runoff Reduction Volume (RRv)

Section 4.2 of the Manual states that Water Quality Volume (WQv) is intended to improve the water quality by capturing and treating runoff from small, frequent storm events that contain higher pollutant levels created through the increase of impervious surfaces. Impervious surfaces accumulate pollutants that quickly wash off and rapidly enter downstream waters as well as prevent natural groundwater recharge.

The WQv required for the proposed site is based upon the 90% rainfall event number, percent of impervious cover, and the total site area. Calculations were done using the Green Infrastructure worksheets and can be found in the Drainage Report (Appendix C). The total WQv required is 273,007 cubic feet.

Runoff Reduction Volume (RRv) is the reduction of the total WQv by application of green infrastructure techniques and stormwater management practices to replicate pre-development hydrology more closely. The intent of RRv is to recognize the water quality benefits of certain site design practices to address flow as a pollutant of concern. Calculations were done using the Green Infrastructure worksheets and can be found in the Drainage Report (Appendix C). The minimum RRv was determined to be 57,313 cubic feet.

As noted in the SMP, due to the level of contamination present in the existing soils across the Expansion Site, stormwater infiltration is not a permissible practice for this portion of the project. Without the capability to infiltrate stormwater runoff, all treatment practices selected for the Expansion Site do not include RRv.

However, for both the Normanskill St. and Offsite Improvements, treatment practices selected utilize infiltration and therefore include RRv. Neither of these areas contain contaminated soil and are not part of the Site Management Plan. While the minimum RRv cannot be achieved, the total WQv requirement is met.

#### *8.1.2 Channel Protection Volume (CPv)*

Stream Channel Protection Volume Requirements (CPv) are designed to protect stream channels from erosion. The Manual was used to determine the water quantity requirements of CPv; specifically, providing 24-hour extended detention for the 1-year storm event or discharging directly to tidal waters.

According to Section 4.4 of the Manual, the Stream Channel Protection Volume (CPV) requirement does not apply when the site discharges to a tidal waterbody.

The CPv requirement does not apply in certain conditions, including the following:

- Reduction of the entire CPv volume is achieved at a site through green infrastructure or infiltration systems.
- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams.

The Hudson River and Normans Kill are classified as tidal waters at the project site. Therefore, 24-hour extended detention of the 1-year storm event is not required for all drainage areas that outlet directly to the Hudson River or Normans Kill. Hydrologic analysis for the 1-year storm event is provided in the Drainage Report (Appendix C).

#### *8.1.3 Overbank Flood Control (Qp)*

The primary purpose of the overbank flood control sizing criterion is to prevent an increase in the frequency and magnitude of out-of-bank flooding generated by urban development. The Manual was used to determine the water quantity requirements of Qp; specifically, providing sufficient retention volume to discharge all runoff from the proposed 10-year storm event at a rate equal to or less than the existing peak 10-year runoff rate or discharging directly to tidal waters.

According to Section 4.5 of the Manual, the Overbank Flood Control Criteria (Qp) requirement does not apply when the site discharges to a tidal waterbody.

The overbank flood control requirement (Qp) does not apply in certain conditions, including:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams.

The Hudson River and Normans Kill are classified as tidal waters at the project site. Therefore, 24-hour extended detention of the 10-year storm event is not required for all drainage areas that outlet directly to the Hudson River or Normans Kill. Hydrologic analysis for the 1-year storm event is provided in the Drainage Report (Appendix C).



#### 8.1.4 *Extreme Flood Control (Qf)*

The intent of the extreme flood criteria is to prevent the increased risk of flood damage from large storm events, maintain the boundaries of the predevelopment 100-year floodplain, and protect the physical integrity of stormwater management practices. The Manual was used to determine the water quantity requirements of Qf; specifically, providing sufficient retention volume to discharge all runoff from the proposed 100-year storm event at a rate equal to or less than the existing peak 100-year runoff rate or discharging directly to tidal waters.

According to Section 4.6 of the Manual, the Extreme Flood Control Criteria (Qf) requirement does not apply when the site discharges to a tidal waterbody.

The 100-year storm control requirement can be waived if:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams.

The Hudson River and Normans Kill are classified as tidal waters at the project site. Therefore, 24-hour extended detention of the 100-year storm event is not required for all drainage areas that outlet directly to the Hudson River or Normans Kill. Hydrologic analysis for the 100-year storm event is provided in the Drainage Report (Appendix C).

## 8.2 Evaluation of Green Infrastructure

According to Section 4.3 of the Manual, meeting the RRv (through green infrastructure) may not be feasible due to limitations that prevent the use of an infiltration technique and/or infiltration of the total WQv. The Beacon Island portion of the project site does not allow for the infiltration of any stormwater runoff due to the presence of fly ash across the site. However, green infrastructure practices were evaluated for potential use.

### 8.2.1 *Conservation of Natural Areas*

The existing vegetation located along the bank of the Hudson River is conserved in the proposed plan. No credit has been applied.

### 8.2.2 *Sheetflow to Riparian Buffers and Filter Strips*

Riparian Buffers and Filter Strips were not utilized, due to the lack of space on the Port Authority owned land.

### 8.2.3 *Vegetated Swales*

The developed site contains vegetated swales where there is sufficient room. Due to the inability to infiltrate on the Expansion Site, no credit has been applied.

### 8.2.4 *Tree Planting / Tree Pits*

New landscaping will complement the existing environment and provide aesthetics for the buildings and parking areas. No credit has been applied for proposed tree plantings.

### 8.2.5 *Disconnection of Rooftop Runoff*

Rooftop disconnection was not considered for this project, as the buildings will have large sloped roofs in a single direction and are located within large, compacted gravel areas that would potentially cause erosion, unstable soil saturation of the dense graded aggregate as well as encourage infiltration into the



fly ash sub-surface layer.

#### *8.2.6 Stream Daylighting*

Stream daylighting is not available for the proposed project.

#### *8.2.7 Rain Gardens / Bioretention*

The developed site does not have sufficient room for Rain Gardens or Bioretention. These practices also promote infiltration potentially into the fly ash sub-surface layer.

#### *8.2.8 Green Roofs*

Green roofs were not considered to be feasible for this project due to the nature of the proposed pre-engineered metal buildings.

#### *8.2.9 Stormwater Planter*

Stormwater Planters were not considered due to the poor soils and rooftop runoff volume.

#### *8.2.10 Rain Barrels and Cisterns*

The developed site does not have sufficient room for Rain Barrels or Cisterns to accommodate the amount of roof runoff.

#### *8.2.11 Porous Pavement*

Porous pavement was not considered due to the large loads associated with the Tower sections being moved and stored on site that would cause the porous pavement surface to crumble. This practice also promotes infiltration, which is not allowed.

#### *8.2.12 Infiltration System*

Two infiltration basins were designed to treat runoff from a portion of the Normanskill St. Improvements. Two dry swales were also designed to treat runoff from the Offsite and a port of the Normanskill St. Improvements. An infiltration system was not considered on the Expansion Site due to the presence of fly ash.

## 9. POST CONSTRUCTION STORMWATER CONTROL PRACTICES

### 9.1 Table of Post Construction Practices

See Table 5 below.

### 9.2 Post Construction Practices Plan

Locations of Post Construction Practices are found in the Erosion & Sediment Control Plans and Details (Appendix B).

To best mitigate the water quality requirements of the proposed site, two (2) stormwater ponds, seven (7) manufactured stormwater filtering systems, two (2) infiltration basins, and two (2) dry swales were designed. All practices were designed in accordance with the Manual. Each practice was sized to provide WQv; however, they do not all provide storm event flow mitigation (see sections 8.1.2 through 8.1.4 above).

Drainage Areas DR-1 through DR-7 will provide WQv using manufactured water quality systems. Drainage Areas DR-8 and DR-9 will drain to stormwater ponds providing WQv. The total of practices providing water quality volume is 269,431 cubic feet (cf). A full description of the designed stormwater treatment practices is provided in Section III.B of the Drainage Design Report (Appendix C). The WQv is summarized in Table 5 below:

**Table 5 – Water Quality Volume Practice Summary**

Drainage Area	Stormwater Practice	WQv Provided (cf)
DR-1	Filter Type 2	42,218
DR-2	Filter Type 2	21,971
DR-3	Filter Type 2	43,938
DR-4	Filter Type 1	35,666
DR-5	Filter Type 2	20,342
DR-6	Filter Type 2	48,059
DR-7	Filter Type 1	34,826
DR-8	Stormwater Pond #1	8,437
DR-9	Stormwater Pond #2	13,361
DR-15	Dry Swale	129
DR-17	Dry Swale	484
<b>Total WQv</b>		<b>269,431</b>

Due to the presence of fly ash across the Expansion Site, infiltration is not a permissible RRv technique.

However, the Normanskill St. and Offsite Improvement portions of this project are in an area of uncontaminated soil with high infiltration rates. Therefore, all treatment practices selected infiltrate into the ground and provide RRv. The minimum RRv as required by the entire project is not met, however the total volume of water to be treated (WQV) is satisfied.

The total RRv provided is 4,454 CF. The RRv is summarized in Table 6 below:

**Table 6 – Runoff Reduction Practice Summary**

Drainage Area	Practice	RRv (cf)
DR-13	Infiltration Basin	1,995
DR-14	Infiltration Basin	2,245
DR-15	Dry Swale	87
DR-17	Dry Swale	127
<b>Total RRv</b>		<b>4,454</b>

Drainage Areas DR-10, DR-11, DR-12, and DR-16 are to remain as naturally vegetated and therefore do not require water quality treatment.

### 9.3 Hydraulic Analysis of Pre- and Post-Development Conditions

In analyzing pre- and post-construction stormwater conditions, the Normans Kill and Hudson River were used as comparison points. Both the pre- and post-construction stormwater is discharged into the receiving water bodies. Using Chapter 4 of the Manual for new development, the project meets the total water quality volume required. Table 7 below summarizes the impervious cover of the pre- and post-development conditions.

**Table 7 – Impervious Cover**

	Pre-Development	Post-Development
Impervious Area	5.16 ac	65.9 ac
% Impervious Cover	7.1%	90.6%

The existing site has no water quality treatment measures. A portion of all stormwater not stored within the site is directly discharged into the Hudson River and Normans Kill. Per Chapter 4 of the Manual, new development projects are required to provide water quality treatment. As shown below, the project can meet the total water quality volume required. The peak discharge for the 1-year, 10-year and 100-year storm events exceed the existing value; however, as described in Section 8.1 above, this requirement is waived when discharging directly to tidal waters. A summary of the stormwater management plan is shown in the table below.

**Table 8 - Stormwater Management Plan Summary**

Storm Event	Pre-Development	Post-Development
Analysis Point #1		
1-yr Discharge	3.25 cfs	71.54 cfs
10-yr Discharge	14.97 cfs	125.39 cfs
100-yr Discharge	43.43 cfs	218.14 cfs
Analysis Point #2		
1-yr Discharge	7.17 cfs	93.18 cfs
10-yr Discharge	20.65 cfs	166.49 cfs
100-yr Discharge	48.06 cfs	293.07 cfs
Analysis Point #3		
1-yr Discharge	0.60 cfs	1.20 cfs
10-yr Discharge	1.84 cfs	2.62 cfs
100-yr Discharge	4.39 cfs	5.25 cfs
Wetland #1 Inflow		
1-yr Discharge	27.32 cfs	4.67 cfs
10-yr Discharge	73.24 cfs	12.12 cfs
100-yr Discharge	163.6 cfs	30.29 cfs
Total Area of Soil Disturbance	72.7 acres	
WQv Target	273,007 cf	
WQv Provided	<b>273,885 cf</b>	

In the post-development condition, Analysis Point #1 has a total drainage area of 0.12 square miles (75.28 acres). This point drains to the Normans Kill with a drainage area of 162 square miles (103,680 acres). The project makes up approximately 0.07% of the total drainage area of the Normans Kill. With an overall project time of concentration of around 10 minutes, the proposed project will have a negligible impact on the total Normans Kill hydrology as the site-produced runoff will be conveyed prior to the Normans Kill peak and not have an impact on the overall flood conditions of the Normans Kill.

In the post-development condition, Analysis Point #2 has a total drainage area of 0.04 square miles (23.6 acres). This point drains to the Hudson River with a drainage area of 8,090 square miles (5,177,600 acres). The project makes up approximately 0.0005% of the total drainage area of the Hudson. With an overall project time of concentration of around 10 minutes, the proposed project will have a negligible impact on the total Hudson River hydrology, as the site-produced runoff will be conveyed prior to the Hudson River peak and not have an impact on the overall flood conditions of the Hudson River.

In larger storm events, stormwater pond #1 and #2 will provide a “first flush” treatment for up to a 10-year storm event with stabilized emergency spillways to direct flow to the surrounding area for storms greater than the 10-year event. Due to the topography of the surrounding undisturbed area, water will flow toward Wetland #1. A pre- and post-development analysis of the inflow to Wetland #1 is shown above. The post-development runoff going to Wetland #1 does not exceed the pre-development condition.

At Analysis Point #3, the post-development discharge rates are higher than the pre-development

condition. However, analysis point #3 drains to the surrounding area which stores runoff to be gradually infiltrated. Runoff from this analysis point does not flow to a stream or wetland.

#### 9.4 Deviation from NYS Stormwater Management Design Manual

The proposed stormwater management design deviates from The Manual in two areas. The first being the use of manufactured stormwater filtering systems for new development, and the second being the inability to meet the minimum RRv.

The need for alternative stormwater management practices is rooted in the extremely limited space available as well as the current site conditions. The proposed Offshore Wind Manufacturing Facility requires 85 acres of usable manufacturing and storage space along the Hudson River. It also requires close proximity to an existing port. Such requirements narrow the available project locations to a select few plots of unoccupied land in the entire state and this site was selected through a solicitation process by the state for off-shore wind development. This site was chosen given it is located adjacent to the existing Port of Albany and is directly on the Hudson River. However, the usable portion of the site adjacent to the Hudson River, is only 66-acre area. Therefore, the entirety of the site is needed for the OSW manufacturing process, with an ancillary receiving site located at 700 Smith Boulevard. In typical space restrictive scenarios, infiltration is a commonly used practice. However, the Expansion Site is a historic fly ash disposal area, containing highly contaminated soil. According to the site specific SMP, developed in coordination with the NYSDEC, infiltration is not recommended.

To adequately satisfy the WQv requirements of the Manual, manufactured systems are needed. The Contech Jellyfish units designed meet both the performance and sizing requirements of Chapter 4 of the Manual. The units are also certified by Washington State Department of Ecology (TAPE) and the Maryland Department of the Environment, adequate sources accepted by the NYSDEC. Specifications and details for the proposed units are provided in Appendix D.

The second deviation is a result of the need for manufactured stormwater management units. These units handle the majority of the WQv for the site, and do not provide RRv. Additionally, as stated above, infiltration is not an acceptable practice for the Expansion site, eliminating a majority of RRv techniques. See Section 8.2 of the SWPPP for an evaluation of green infrastructure practices. The Normanskill Street improvement and Offsite Improvement portions of this project are in areas of uncontaminated soil with high infiltration rates. Therefore, all treatment practices selected for these areas infiltrate into the ground and provide all treatment as RRv. While the minimum RRv requirement cannot be met given the site restrictions, 4,454 cf of runoff is reduced per the proposed plan.

## 9.5 Maintenance Schedule of Post-Construction Stormwater Control Practices

**Table 9 – Maintenance Schedule of Post-Construction Stormwater Management Facilities**

Maintained By	Name of Entity
Name, Address, Phone of Responsible Party	Albany Port District Commission 106 Smith Boulevard Albany, NY 12202 (518) 463-8763
Facilities to be Maintained	Jellyfish Filter (12 units at 7 locations) Stormwater Ponds (2) Infiltration Basins (2) Dry Swales (2) Stormwater Collection & Conveyance Systems
Description of Maintenance Activity for each Facility and Frequency	See Appendix F for maintenance guidelines, as recommended by the manufacturer and NYSDEC.
Description of Applicable Easements	N/A
Access and Safety Issues	Maintenance forces have access to all drainage facilities within the site.
Local and Non-Local Permits	Joint Permit Application
Legal Agreements	N/A

## 9.6 Drainage Structure Catchment Areas

See Drainage Design Report (Appendix C).

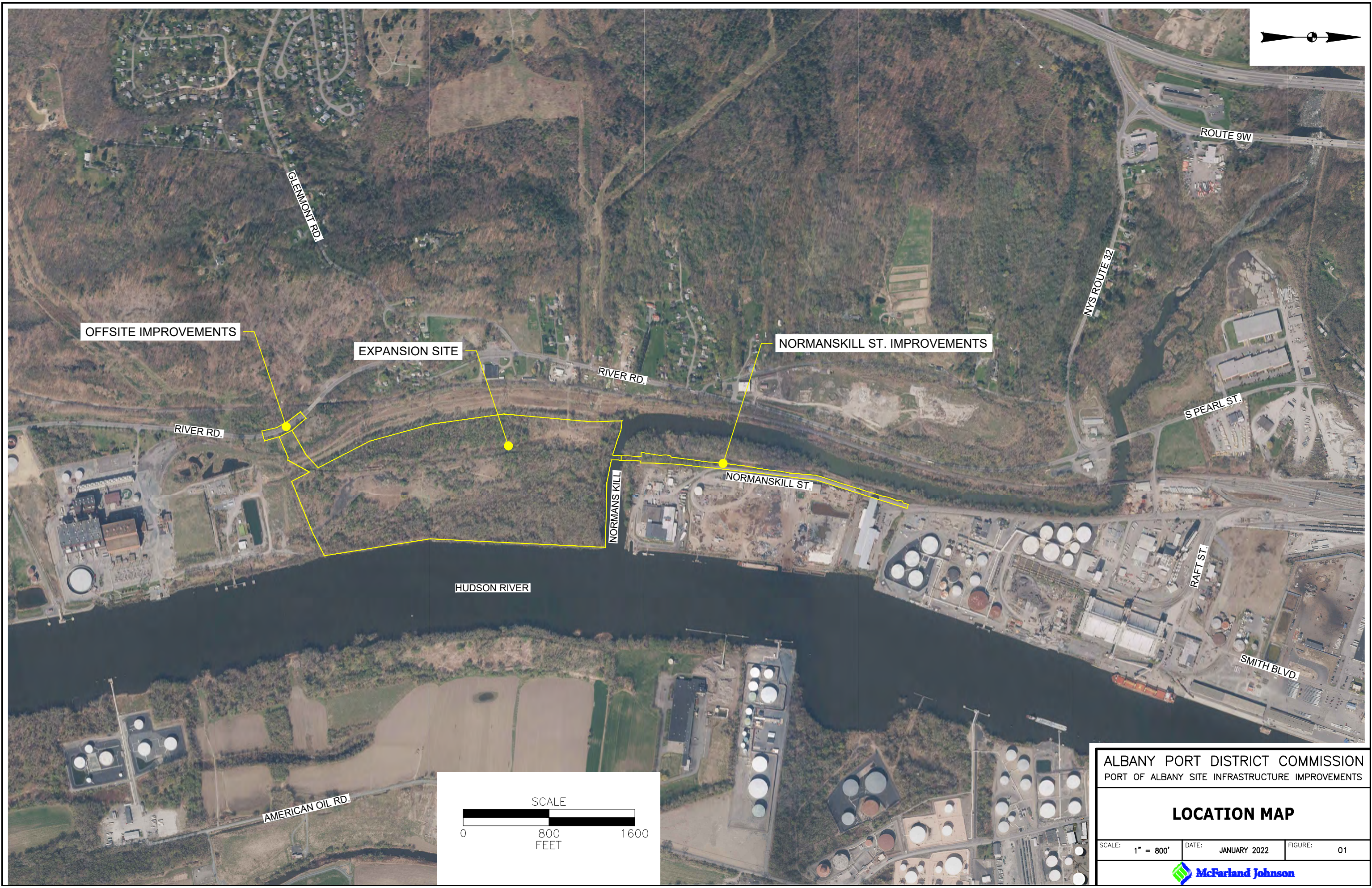
## 9.7 Hydraulic Analysis of Stormwater Sewer System

All elements of the closed drainage system have been designed to be non-erosive during a 2-year storm event and capable of conveying a 10-year storm event. The profiles were created in AutoCAD Civil 3D which incorporates the rational method and Manning’s Equation to iteratively calculate the hydraulic capacity, grade lines, and inlet spreads. Printouts of the closed drainage system analysis are in the Drainage Design Report (Appendix C).

# APPENDIX A

## LOCATION MAP





OFFSITE IMPROVEMENTS

EXPANSION SITE

NORMANSKILL ST. IMPROVEMENTS

RIVER RD.

RIVER RD.

NORMANSKILL ST.

NORMANS KILL

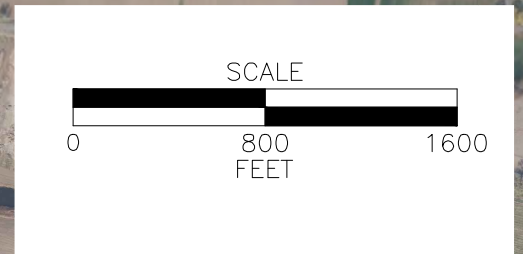
S PEARL ST.

RAFT ST.

SMITH BLVD.

HUDSON RIVER

AMERICAN OIL RD.



ALBANY PORT DISTRICT COMMISSION  
PORT OF ALBANY SITE INFRASTRUCTURE IMPROVEMENTS

### LOCATION MAP

SCALE: 1" = 800'    DATE: JANUARY 2022    FIGURE: 01





# APPENDIX B

EROSION & SEDIMENT CONTROL PLANS, DETAILS &  
NOTES





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PROJECT MILESTONE  
**FINAL DESIGN PLANS**

NO.	DATE	DESCRIPTION

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**ALBANY PORT DISTRICT COMMISSION**  
 ALBANY, NEW YORK

PROJECT:  
**PORT OF ALBANY EXPANSION SITE**

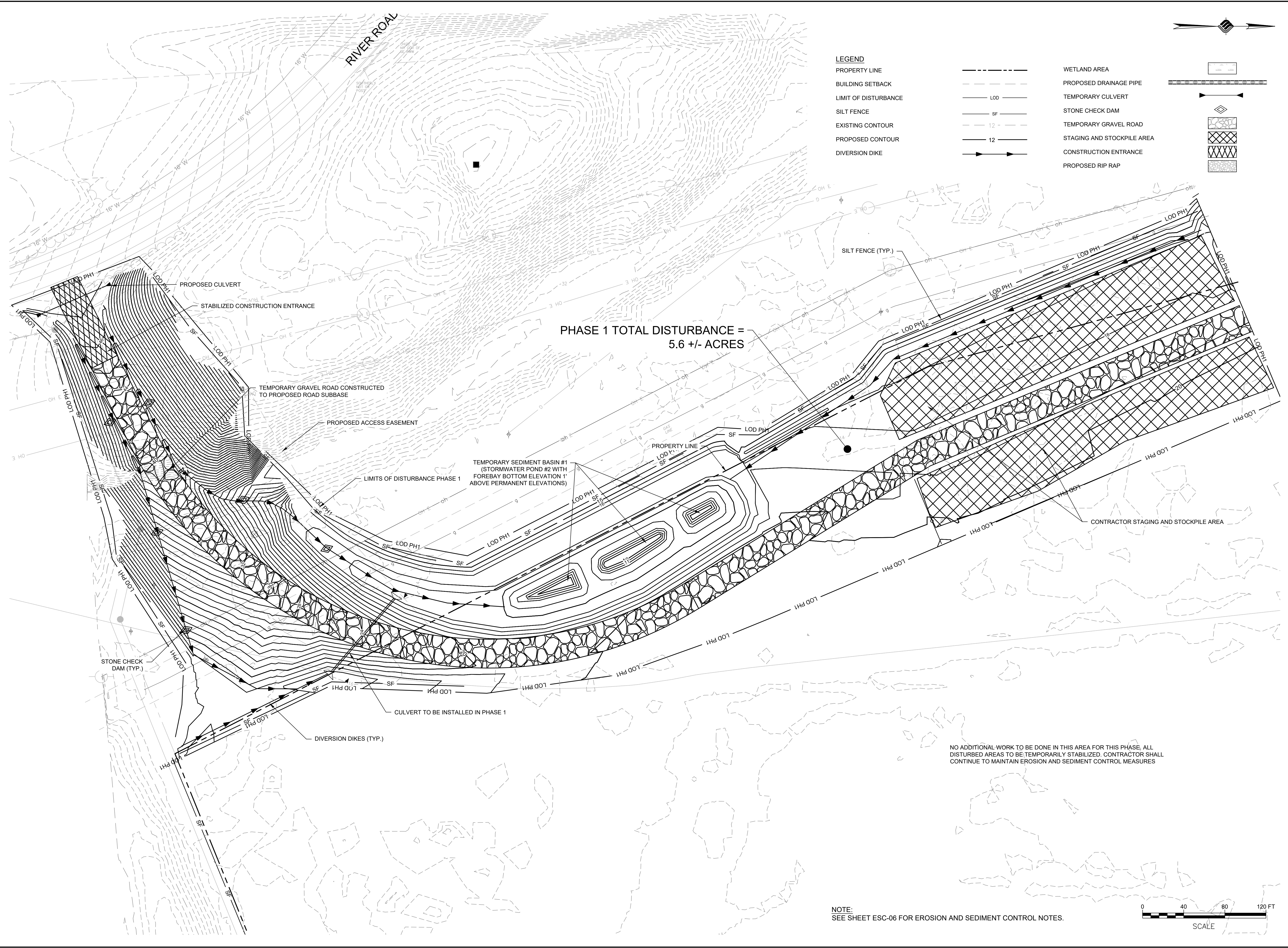
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DATE	JANUARY 2022
PROJECT	18641.00

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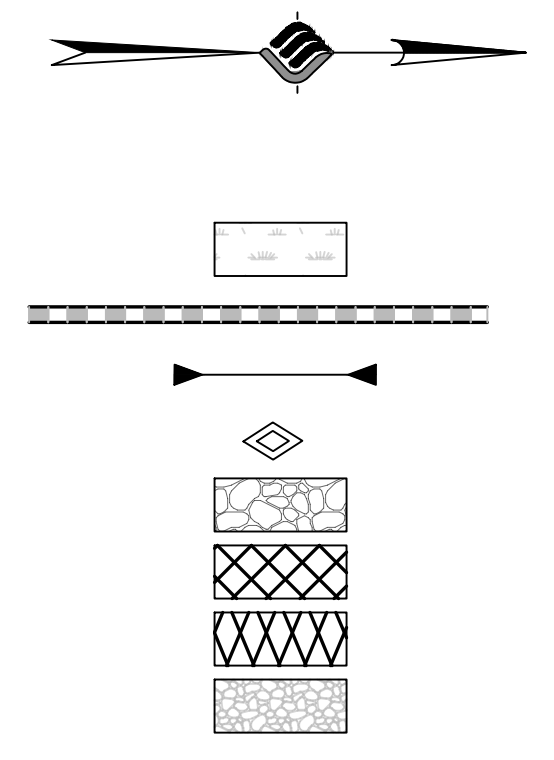
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**ESC-01**



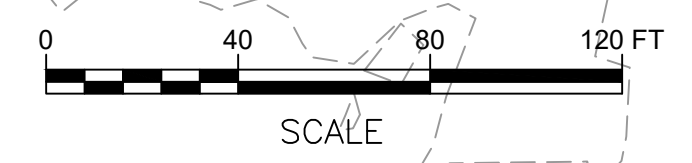
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  - BUILDING SETBACK
  - LIMIT OF DISTURBANCE
  - SILT FENCE
  - EXISTING CONTOUR
  - PROPOSED CONTOUR
  - DIVERSION DIKE
  - WETLAND AREA
  - PROPOSED DRAINAGE PIPE
  - TEMPORARY CULVERT
  - STONE CHECK DAM
  - TEMPORARY GRAVEL ROAD
  - STAGING AND STOCKPILE AREA
  - CONSTRUCTION ENTRANCE
  - PROPOSED RIP RAP



**PHASE 1 TOTAL DISTURBANCE =  
 5.6 +/- ACRES**

NO ADDITIONAL WORK TO BE DONE IN THIS AREA FOR THIS PHASE. ALL DISTURBED AREAS TO BE TEMPORARILY STABILIZED. CONTRACTOR SHALL CONTINUE TO MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES

NOTE:  
 SEE SHEET ESC-06 FOR EROSION AND SEDIMENT CONTROL NOTES.

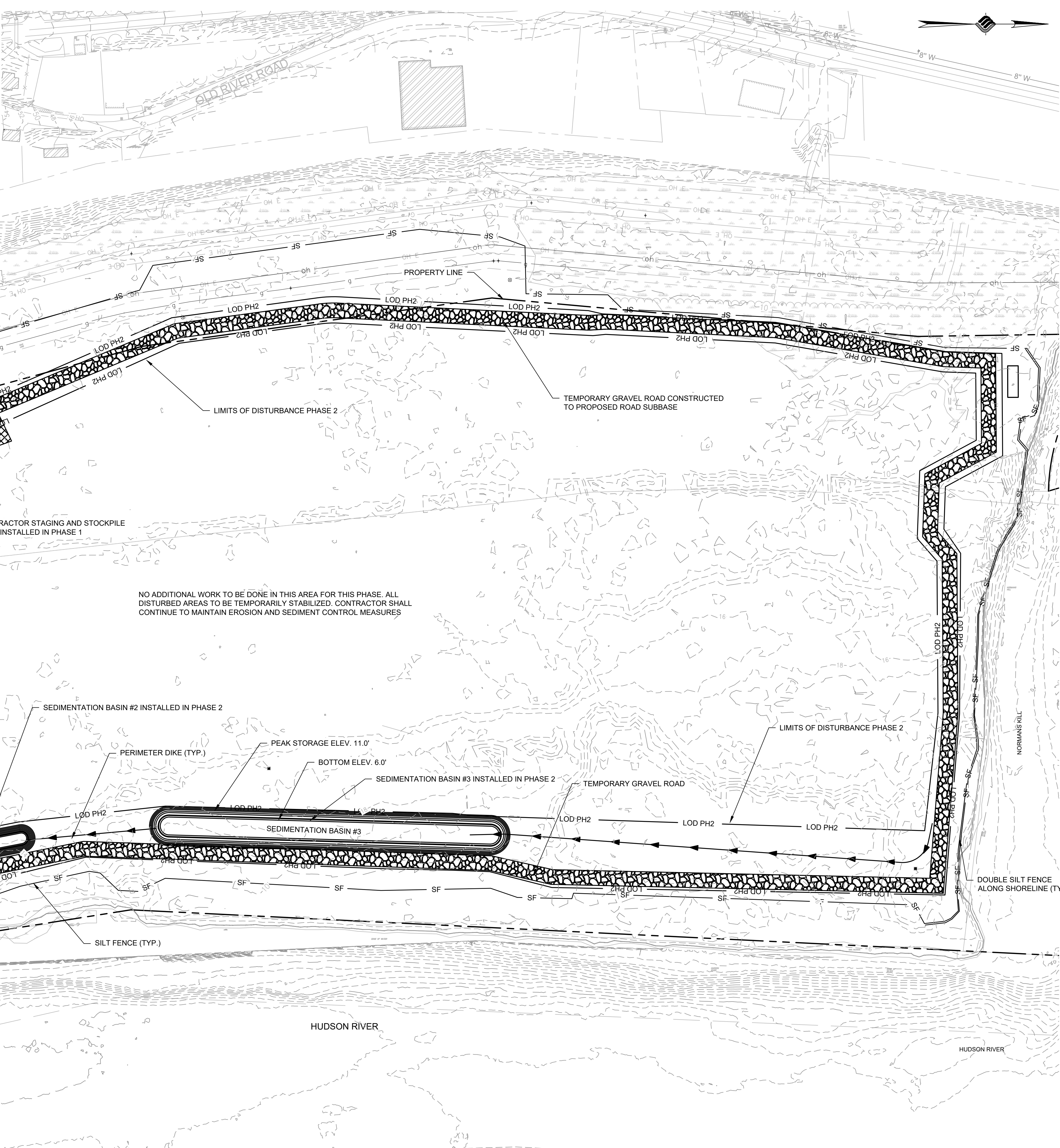


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- LEGEND**
- PROPERTY LINE
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  - SILT FENCE
  - EXISTING CONTOUR
  - PROPOSED CONTOUR
  - DIVERSION DIKE

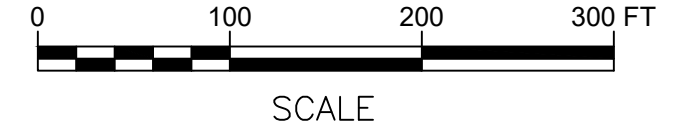
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- PROPOSED DRAINAGE PIPE
- TEMPORARY CULVERT
- STONE CHECK DAM
- TEMPORARY GRAVEL ROAD
- STAGING AND STOCKPILE AREA
- CONSTRUCTION ENTRANCE
- PROPOSED RIP RAP



PHASE 2 TOTAL DISTURBANCE = 11.4 +/- ACRES

NO ADDITIONAL WORK TO BE DONE IN THIS AREA FOR THIS PHASE. ALL DISTURBED AREAS TO BE TEMPORARILY STABILIZED. CONTRACTOR SHALL CONTINUE TO MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES

NOTE:  
SEE SHEET ESC-05 FOR EROSION AND SEDIMENT CONTROL NOTES.



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ALBANY, NEW YORK

PROJECT:  
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CHECKED	AJF
SCALE	1"=100'
DATE	JANUARY 2022
PROJECT	18641.00

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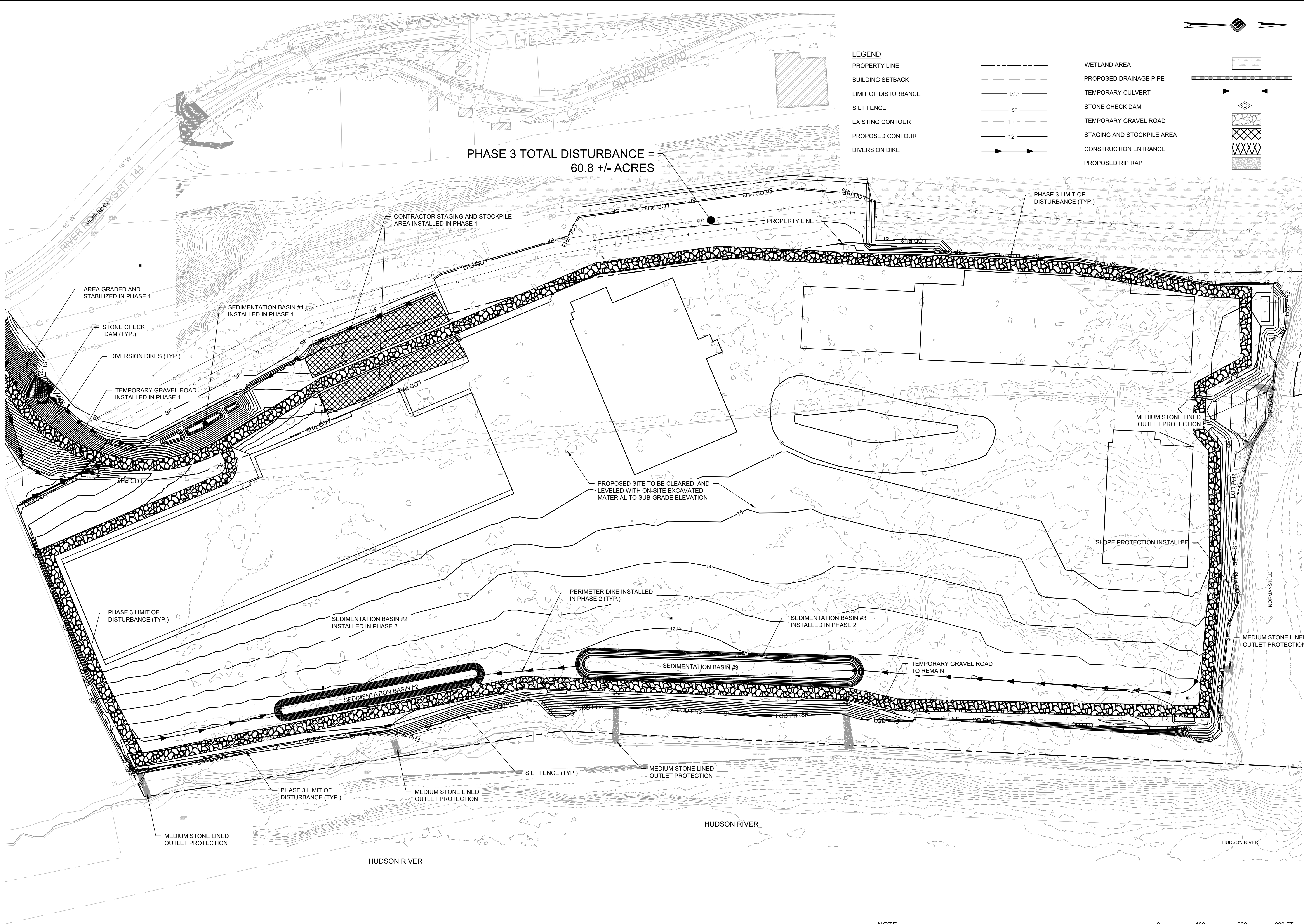
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DRAWING TITLE  
**EROSION & SEDIMENT CONTROL PLAN-PH.3**

DRAWING NUMBER  
**ESC-03**



- LEGEND**
- PROPERTY LINE
  - BUILDING SETBACK
  - LIMIT OF DISTURBANCE
  - SILT FENCE
  - EXISTING CONTOUR
  - PROPOSED CONTOUR
  - DIVERSION DIKE
  - WETLAND AREA
  - PROPOSED DRAINAGE PIPE
  - TEMPORARY CULVERT
  - STONE CHECK DAM
  - TEMPORARY GRAVEL ROAD
  - STAGING AND STOCKPILE AREA
  - CONSTRUCTION ENTRANCE
  - PROPOSED RIP RAP

NOTE:  
 SEE SHEET ESC-05 FOR EROSION AND SEDIMENT CONTROL NOTES.



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PROJECT:  
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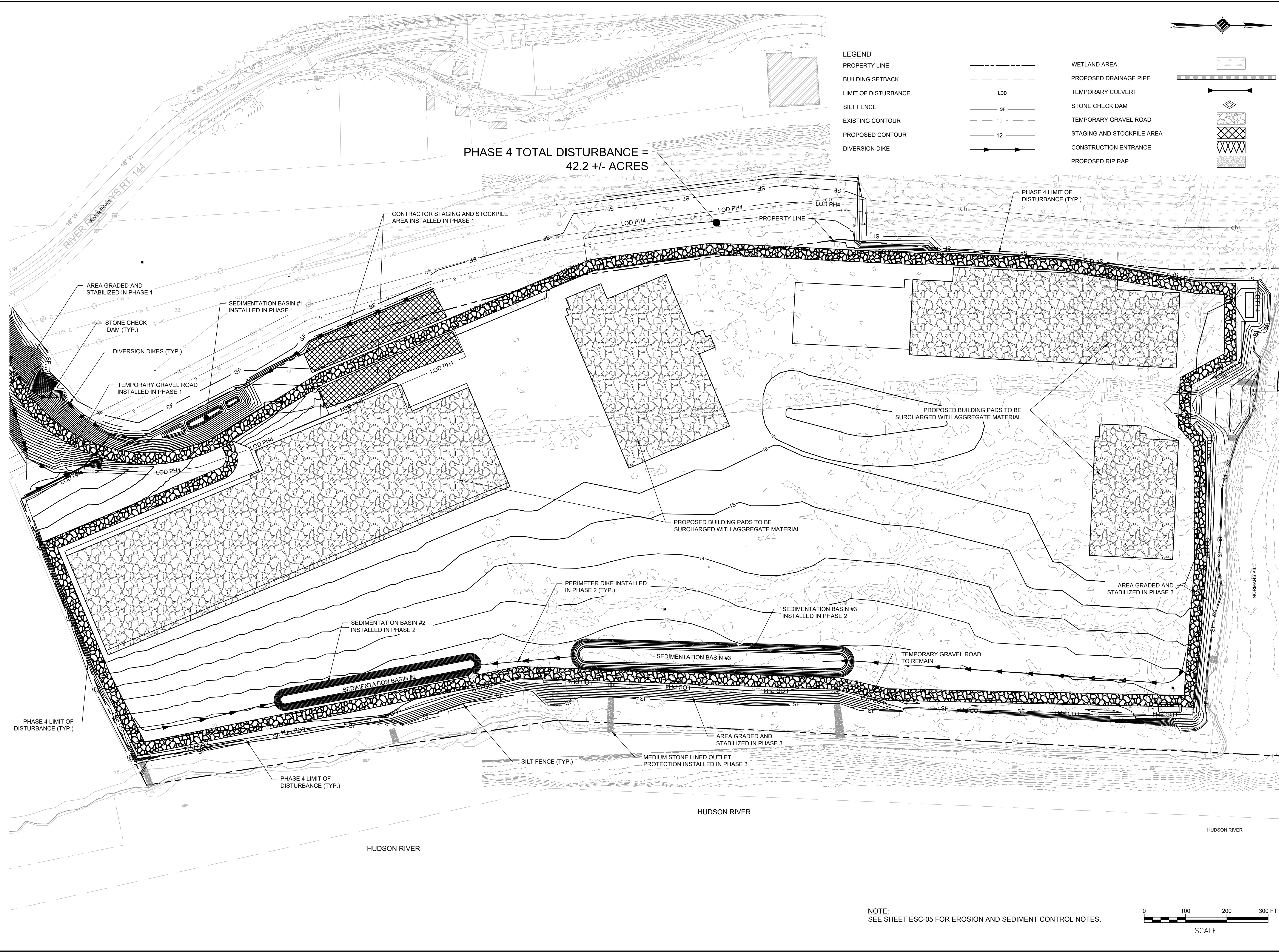
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PROJECT	18641.00

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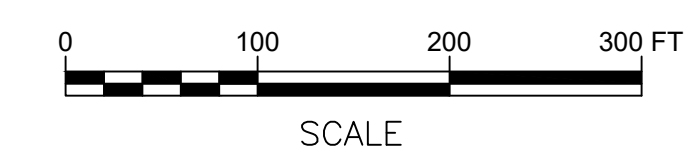
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**EROSION & SEDIMENT CONTROL PLAN-PH.4**

DRAWING NUMBER  
**ESC-04**



NOTE:  
SEE SHEET ESC-05 FOR EROSION AND SEDIMENT CONTROL NOTES.



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 PROJECT: **PORT OF ALBANY EXPANSION SITE**

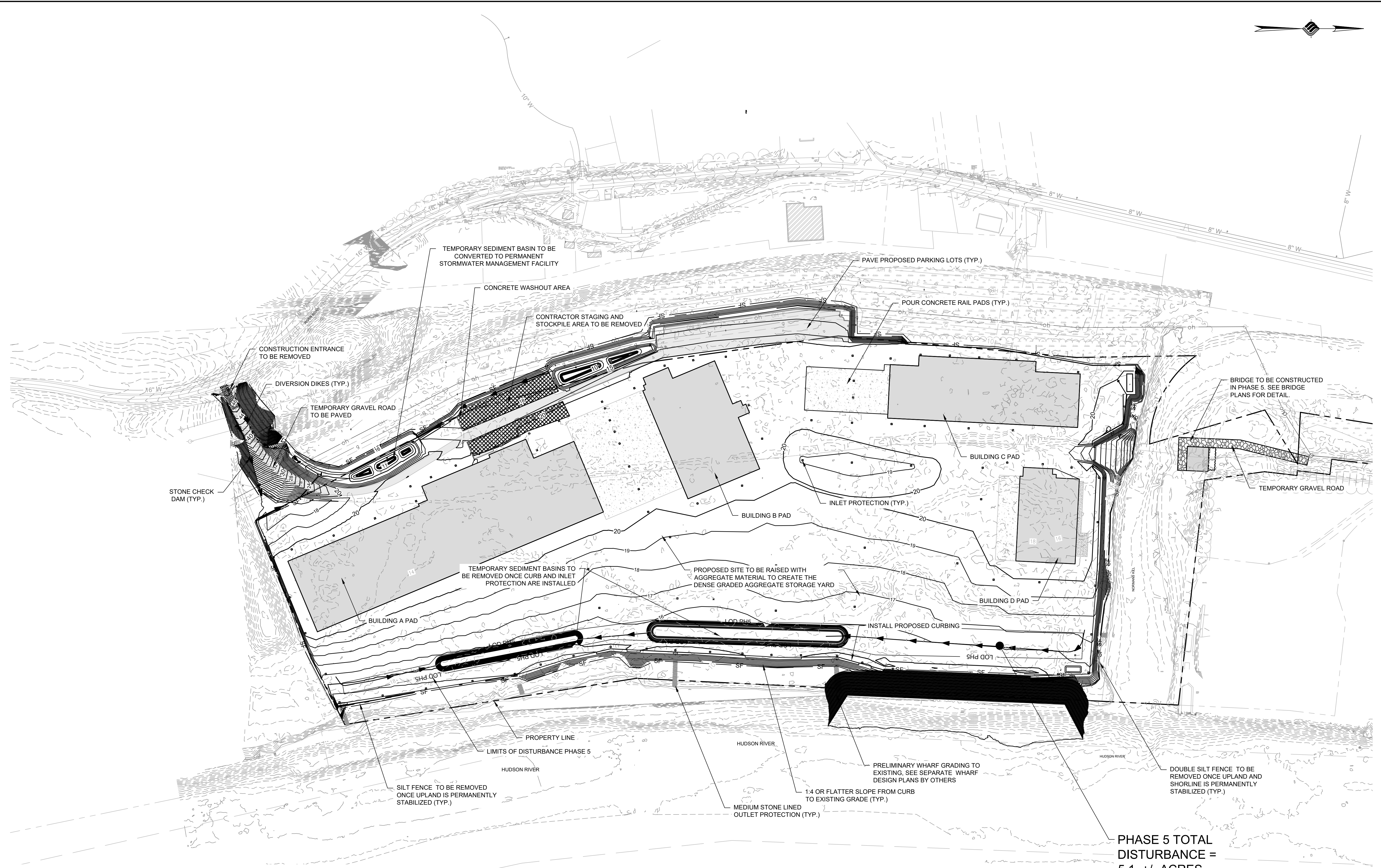
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**EROSION & SEDIMENT CONTROL PLAN-PH.5**

DRAWING NUMBER  
**ESC-05**  
 55 OF 62



**LEGEND**

PROPERTY LINE	-----	WETLAND AREA	[Symbol]
BUILDING SETBACK	-----	PROPOSED DRAINAGE PIPE	-----
LIMIT OF DISTURBANCE	LOD	TEMPORARY CULVERT	[Symbol]
SILT FENCE	SF	STONE CHECK DAM	[Symbol]
EXISTING CONTOUR	12	TEMPORARY GRAVEL ROAD	[Symbol]
PROPOSED CONTOUR	12	STAGING AND STOCKPILE AREA	[Symbol]
DIVERSION DIKE	[Symbol]	CONSTRUCTION ENTRANCE	[Symbol]
		PROPOSED RIP RAP	[Symbol]

NOTE:  
 SEE SHEET ESC-05 FOR EROSION AND SEDIMENT CONTROL NOTES.

**PHASE 5 TOTAL  
 DISTURBANCE =  
 5.1 +/- ACRES**



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PROJECT MILESTONE  
**FINAL DESIGN PLANS**

NO.	DATE	DESCRIPTION

CLIENT:  
**ALBANY PORT DISTRICT COMMISSION**

**ALBANY, NEW YORK**

PROJECT:  
**PORT OF ALBANY EXPANSION SITE**

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	N.T.S.
DATE	JANUARY 2022
PROJECT	18641.00

**FOR REVIEW  
NOT FOR  
CONSTRUCTION**

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE  
**EROSION & SEDIMENT CONTROL NOTES**

DRAWING NUMBER  
**ESC-06**

EROSION AND SEDIMENT CONTROL PLAN NOTES:

- THE EROSION AND SEDIMENT CONTROL PLAN IS INTENDED TO REPRESENT A CONCEPTUAL APPROACH TO EROSION AND SEDIMENT CONTROL. IT IS FURTHER INTENDED THAT THE OWNER AND CONTRACTOR SHALL IMPLEMENT PRACTICES, AS REQUIRED, TO CONTROL EROSION AND SEDIMENT IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL AND SWPPP.
- INSTALL SILT FENCE, AND ALL OTHER EROSION CONTROL MEASURES AS INDICATED ON THE PLAN PRIOR TO THE START OF ANY EXCAVATION WORK. EROSION CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AND THE GOVERNING MUNICIPALITY REQUIREMENTS.
- REMOVE AND STOCKPILE TOPSOIL IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN. REPLACE TOPSOIL TO A MINIMUM 4" DEPTH. ALL DISTURBED AREAS ARE TO BE HYDROSEEDDED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLANS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS, INCLUDING INLET PROTECTION AND SILT FENCE. EROSION CONTROL MEASURES SHALL NOT BE REMOVED BEFORE AREAS HAVE BEEN PROPERLY STABILIZED.
- CONTRACTOR SHALL MAINTAIN A STOCK PILE OF EROSION AND SEDIMENT CONTROL MEASURES ON SITE AS INDICATED ON THE PLAN.
- NO PETROLEUM PRODUCTS ARE TO BE STORED ON SITE WITHOUT PRIOR APPROVAL OF THE LOCAL STORMWATER INSPECTOR. ANY PETROLEUM ON SITE WILL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL GOVERNMENT REGULATIONS.
- WRAP YARD INLET GRATES IN FILTER FABRIC PROGRESSIVELY AS STORM SEWER AND YARD INLETS ARE INSTALLED.
- ALL EROSION CONTROL MEASURES ARE TO BE REPLACED WHENEVER THEY BECOME CLOGGED OR INOPERABLE AND SHALL BE REPLACED AT A MINIMUM OF EVERY 3 MONTHS.
- JUTE MESH WILL BE USED ON SLOPES STEEPER THAN 3:1 AND WHEREVER NECESSARY TO CONTROL EROSION AND SILTATION OF EXISTING DRAINAGE SYSTEMS AS ORDERED BY THE ENGINEER.
- ALL DISTURBED AREAS SHALL BE FINISH GRADED TO PROMOTE VEGETATION ON ALL EXPOSED AREAS AS SOON AS PRACTICABLE. STABILIZATION PRACTICES (TEMPORARY/PERMANENT SEEDING, MULCHING, GEOTEXTILES, ETC.) MUST BE IMPLEMENTED WITHIN SEVEN (7) DAYS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, AND NOT EXPECTED TO RESUME WITHIN FOURTEEN (14) DAYS.
- ALL RIP-RAP OUTLET PROTECTION TO BE CONSTRUCTED PER NYSDEC STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- CONTRACTOR SHALL TAKE THE NECESSARY MEASURES, INCLUDING WATER SPRINKLING, TO PROVIDE DUST CONTROL DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL FEATURES THROUGHOUT THE DURATION OF CONSTRUCTION.
  - ALL SEDIMENT TRAPPING DEVICES AND INLET PROTECTION DEVICES SHALL BE CLEANED OF ACCUMULATED SILT WHEN STORAGE CAPACITY HAS BEEN REDUCED BY 50% OF THEIR DESIGN CAPACITY.
  - ALL SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE AND STRAW BALES WHEN IT ACCUMULATES TO A MAXIMUM HEIGHT OF 6".
  - AFTER VEGETATION HAS BEEN SUBSTANTIALLY ESTABLISHED, EXCAVATE SWALES OF ACCUMULATED SILT, RE-ESTABLISHED VEGETATION ON DISTURBED AREAS.
  - SEDIMENT COLLECTED BY EROSION CONTROL MEASURES SHALL BE DISPOSED OF BY SPREADING ON-SITE OR HAULED AWAY IF DETERMINED TO BE UNSUITABLE FOR FILL.
- ALL DISTURBED AREAS SHALL BE STABILIZED, SEEDED AND MULCHED WITHIN 7 DAYS OF CEASED CONSTRUCTION ACTIVITY.
- TOTAL PROJECT DISTURBANCE AREA PER THE NYSDEC SPDES STANDARDS IS 79 ACRES.
- ALL AREAS TO REMAIN AS PVIOUS VEGETATED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE NYS STORMWATER MANAGEMENT DESIGN MANUAL TABLE 5.3 SOIL RESTORATION REQUIREMENTS.

PERMANENT SEEDING NON-SLOPED AREAS:

- IF SOILS ARE COMPACTED, SCARIFY UPPER TWO INCHES BY BACKBLADING WITH DOZER, RAKING, OR DISKING.
- PLACE TOPSOIL TO A MINIMUM DEPTH OF 4 INCHES.
- SEED PER SCHEDULE SPECIFIED ON LANDSCAPE PLANS.
- FERTILIZE WITH 600 POUNDS PER ACRE OF 10-10-10. LIME TO ACHIEVE A PH OF NOT LESS THAN 5.5 OR GREATER THAN 7.6. IF HYDROSEEDER IS NOT USED, SEED AND FERTILIZER SHOULD BE LIGHTLY RAKED INTO SOIL.
- MULCH WITH CLEAN (WEED FREE) STRAW IF SPECIFIED ON PLANS.

PERMANENT SEEDING SLOPED AREAS:

- IF SOILS ARE COMPACTED, SCARIFY UPPER TWO INCHES BY BACKBLADING WITH DOZER, RAKING, OR DISKING.
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- IMMEDIATELY SEED PER SEED SCHEDULE SPECIFIED ON LANDSCAPE PLAN.
- PROVIDE JUTE MESH IF SPECIFIED ON PLANS OR MULCH WITH CLEAN (WEED FREE) STRAW.

EROSION AND SEDIMENT CONTROL SEQUENCE:

THE TOWN OF BETHLEHEM SHOULD BE NOTIFIED PRIOR TO CONSTRUCTION ACTIVITIES STARTING AND CEASING DISTURBANCE OF OVER 5 ACRES AT ONE TIME.

PHASE I:

- INSTALL CONSTRUCTION ENTRANCE ROADS
- ESTABLISH THE PROJECT CONSTRUCTION STAGING/OFFICE AREA
- USE ANY ACCESS ROAD CUT MATERIAL AS FILL FOR THE CONSTRUCTION STAGING AREA
- TEMPORARILY STABILIZE ALL DISTURBED AREAS
- INSTALL SILT FENCE DOWNSTREAM OF ALL DISTURBED AREAS
- CONSTRUCT SEDIMENTATION BASIN #1 FOREBAYS TO 1' HIGHER THEN PROPOSED GRADING FOR THE PERMANENT STORM WATER MANAGEMENT POND #2 FOREBAYS.
- STABILIZE THE CONSTRUCTION ACCESS ROAD DISTURBANCE AREA PRIOR TO PROGRESSING TO PHASE II

PHASE II:

- INSTALL PERIMETER CONTROLS
- INSTALL CONSTRUCTION ACCESS ROAD AROUND THE PERIMETER OF THE SITE
- CONSTRUCT SEDIMENTATION BASINS
- STABILIZE ALL DISTURBED AREAS BEFORE PROGRESSING INTO PHASE III

PHASE III:

- SITE TO BE CLEARED AND GRUBBED
- BALANCE CUT AND FILLS IN THE SITE
- COMPACT/IMPROVE EXISTING GROUND CONDITIONS ACCORDING TO GEOTECHNICAL REPORT
- IMPORT MATERIAL TO RAISE THE SITE TO PROPOSED SUBGRADE ELEVATIONS
- STABILIZE ALL DISTURBED AREAS BEFORE PROGRESSING INTO PHASE IV

PHASE IV:

- HAUL IN PROPOSED AGGREGATE MATERIAL TO SURCHARGE THE BUILDING FOOTPRINTS AND CONCRETE AREAS
- MAINTAIN EXISTING PHASE III EROSIONAL AND SEDIMENT CONTROL MEASURES

PHASE V:

- INSTALL STORM SEWER SYSTEM WITH INLET PROTECTION FOR DRAINAGE STRUCTURES AND STONE LINING OUTLET PROTECTION
- INSTALL SITE UTILITIES
- SPREAD AGGREGATE MATERIAL TO STORAGE AREAS
- POUR ALL PROPOSED CONCRETE RAIL PADS AND SIDEWALKS
- INSTALL PROPOSED CONCRETE CURBING
- PAVE PARKING LOT AREAS
- REMOVE CONSTRUCTION STAGING AREA
- CONVERT TEMPORARY SEDIMENT BASIN TO PERMANENT STORMWATER MANAGEMENT FACILITIES BY EXCAVATING THE PERMANENT POOL AND FOREBAYS DOWN TO FINAL GRADE AND CONVERTING THE OUTLET STRUCTURE.
- REMOVE TEMPORARY SEDIMENT BASINS, WHICH ARE NOT TO BE CONVERTED TO PERMANENT PRACTICES

TEMPORARY SEEDING FOR EMBANKMENT SLOPES ALONG THE NORMANS KILL AND HUDSON RIVER

- IF SOILS ARE COMPACTED, SCARIFY UPPER TWO INCHES BY BACKBLADING WITH DOZER, RAKING, OR DISKING. FERTILIZE WITH 300 POUNDS PER ACRE OF 10-10-10.
- NOTE: NO FERTILIZER SHOULD BE USED AFTER OCTOBER 1ST IF THERE IS DANGER OF LEACHING INTO WATER RESOURCE.
- IMMEDIATELY SEED PER SEED SCHEDULE SPECIFIED BELOW.
- APPLY STRAW MULCH AS NECESSARY TO HOLD IN MOISTURE, PROTECT SOIL FROM EROSION, HOLD SEED IN PLACE, AND KEEP SOIL TEMPERATURES MORE CONSTANT; 2 TONS PER ACRE.

TEMPORARY SEEDING:

- IF SOILS ARE COMPACTED, SCARIFY UPPER TWO INCHES BY BACKBLADING WITH DOZER, RAKING, OR DISKING. FERTILIZE WITH 300 POUNDS PER ACRE OF 10-10-10.
- NOTE: NO FERTILIZER SHOULD BE USED AFTER OCTOBER 1ST IF THERE IS DANGER OF LEACHING INTO WATER RESOURCE.
- IMMEDIATELY SEED PER SEED SCHEDULE SPECIFIED ON LANDSCAPE PLAN.
- APPLY STRAW MULCH AS NECESSARY TO HOLD IN MOISTURE, PROTECT SOIL FROM EROSION, HOLD SEED IN PLACE, AND KEEP SOIL TEMPERATURES MORE CONSTANT; 2 TONS PER ACRE.

SOIL RESTORATION NOTES:

SOIL RESTORATION PROCEDURE:

DURING PERIODS OF RELATIVELY LOW TO MODERATE SUBSOIL MOISTURE, THE DISTURBED SUBSOILS ARE RETURNED TO ROUGH GRADE AND THE FOLLOWING SOIL RESTORATION STEPS APPLIED:

- APPLY 3 INCHES OF COMPOST OVER SUBSOIL
- TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR-MOUNTED DISC, OR TILLER, MIXING, AND CIRCULATING AIR AND COMPOST INTO SUBSOILS
- ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE
- APPLY TOPSOIL TO A DEPTH OF 6 INCHES
- VEGETATE AS REQUIRED BY APPROVED PLAN.

AT THE END OF THE PROJECT AN INSPECTOR SHOULD BE ABLE TO PUSH A 3/8" METAL BAR 12 INCHES INTO THE SOIL JUST WITH BODY WEIGHT. TILLING (STEP 2 ABOVE) SHOULD NOT BE PERFORMED WITHIN THE DRIP LINE OF ANY EXISTING TREES OR OVER UTILITY INSTALLATIONS THAT ARE WITHIN 24 INCHES OF THE SURFACE.

COMPOST SPECIFICATIONS:

COMPOST SHALL BE AGED, FROM PLANT DERIVED MATERIALS, FREE OF VIABLE WEED SEEDS, HAVE NO VISIBLE FREE WATER OR DUST PRODUCED WHEN HANDLING, PASS THROUGH A HALF INCH SCREEN AND HAVE A PH SUITABLE TO GROW DESIRED PLANTS.

WINTER STABILIZATION:

- PREPARE A SNOW MANAGEMENT PLAN WITH ADEQUATE STORAGE FOR SNOW AND CONTROL OF MELT WATER, REQUIRING CLEARED SNOW TO BE STORED IN A MANNER NOT AFFECTING ONGOING CONSTRUCTION ACTIVITIES.
- TO ENSURE ADEQUATE STABILIZATION OF DISTURBED SOIL IN ADVANCE OF A MELT EVENT, AREAS OF DISTURBED SOIL SHOULD BE STABILIZED AT THE END OF EACH WORK DAY UNLESS:
  - WORK WILL RESUME WITHIN 24 HOURS IN THE SAME AREA AND NO PRECIPITATION IS FORECAST OR;
  - THE WORK IS IN DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS OPEN UTILITY TRENCHES, FOUNDATION EXCAVATIONS, OR WATER MANAGEMENT AREAS.
- IF THE SITE WILL NOT HAVE EARTH DISTURBING ACTIVITIES ONGOING DURING THE "WINTER SEASON", ALL BARE EXPOSED SOIL MUST BE STABILIZED BY ESTABLISHED VEGETATION, STRAW OR OTHER ACCEPTABLE MULCH, MATTING, ROCK OR OTHER APPROVED MATERIAL SUCH AS ROLLED EROSION CONTROL PRODUCTS. SEEDING OF AREAS WITH MULCH COVER IS PREFERRED BUT SEEDING ALONE IS NOT ACCEPTABLE FOR PROPER STABILIZATION.

SOIL DISTURBANCE PHASING	
PHASE	DISTURBANCE AREA
1	5.6 ACRES
2	11.4 ACRES
3	60.8 ACRES
4	42.2 ACRES
5	5.1 ACRES

NOTE: A 5-ACRE WAIVER REQUEST MUST BE APPROVED BY THE TOWN OF BETHLEHEM (MS4) PRIOR TO DISTURBING MORE THAN 5 ACRES.





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**PROJECT MILESTONE**  
**FINAL DESIGN PLANS**

NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION

ALBANY, NEW YORK

PROJECT: PORT OF ALBANY EXPANSION SITE

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	N.T.S.
DATE	JANUARY 2022
PROJECT	18641.00

**FOR REVIEW  
 NOT FOR  
 CONSTRUCTION**

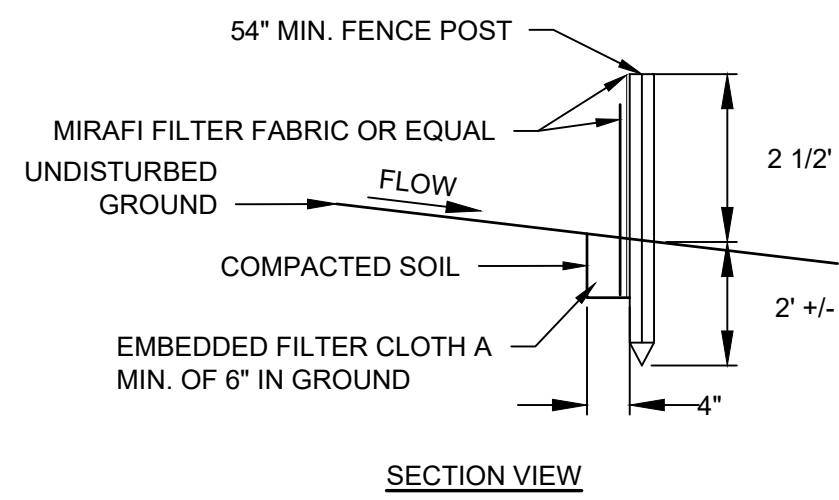
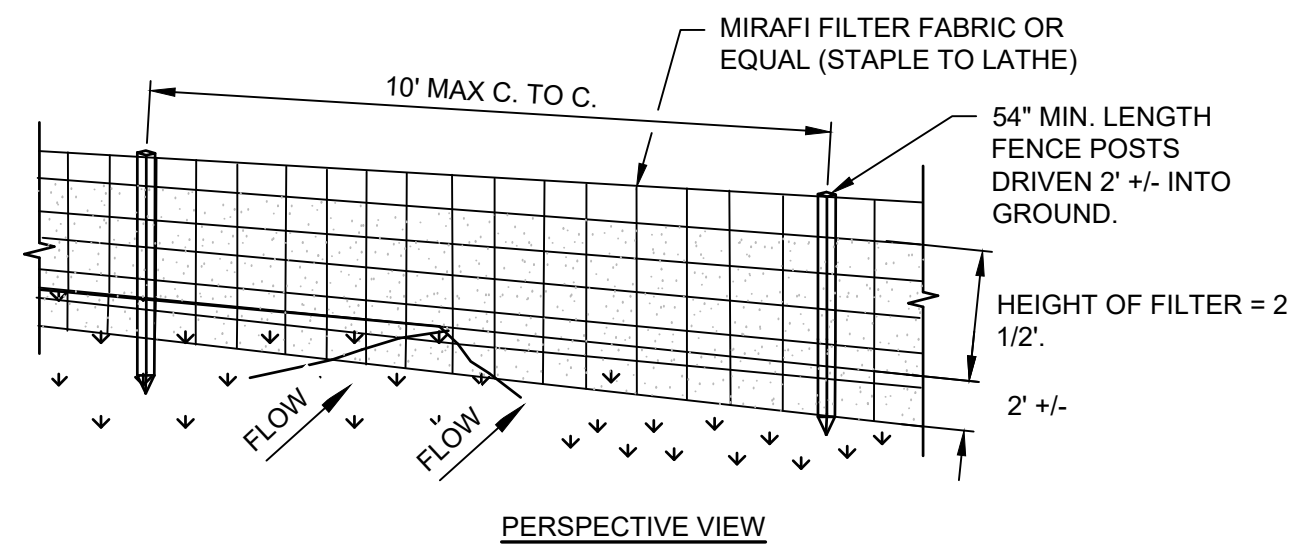
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DRAWING TITLE

**EROSION & SEDIMENT CONTROL DETAILS**

DRAWING NUMBER

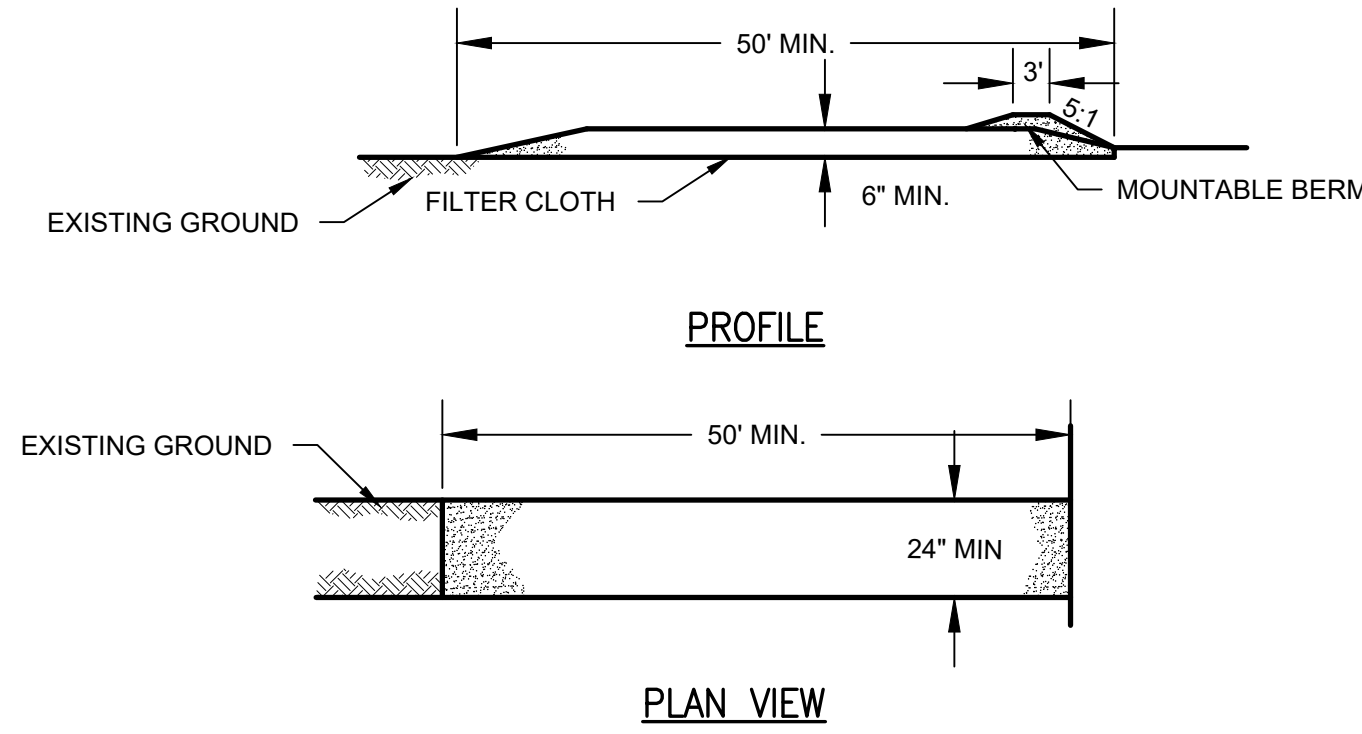
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**SILT FENCE**

**NOTES:**

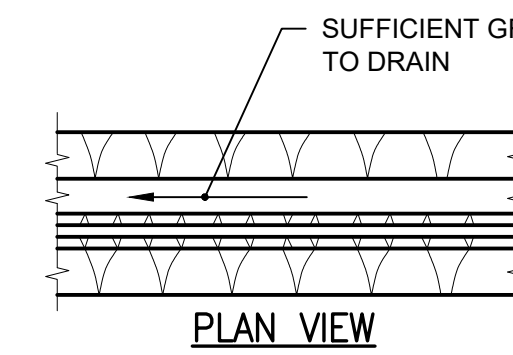
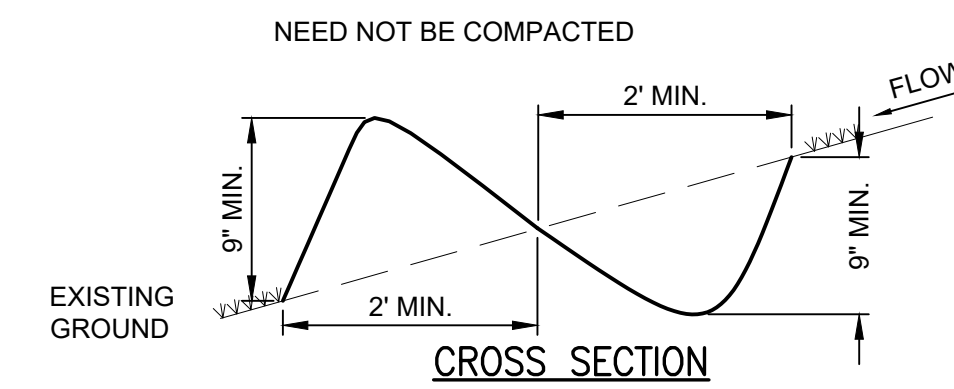
- MIRAFI FILTER FABRIC TO BE SECURED TO FENCE POSTS WITH STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



**NOTES:**

- STONE SIZE - USE #3 CRUSHED STONE OR GRAVEL (PER NYSDOT SECTION 209).
- LENGTH - NOT LESS THAN 50 FEET.
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

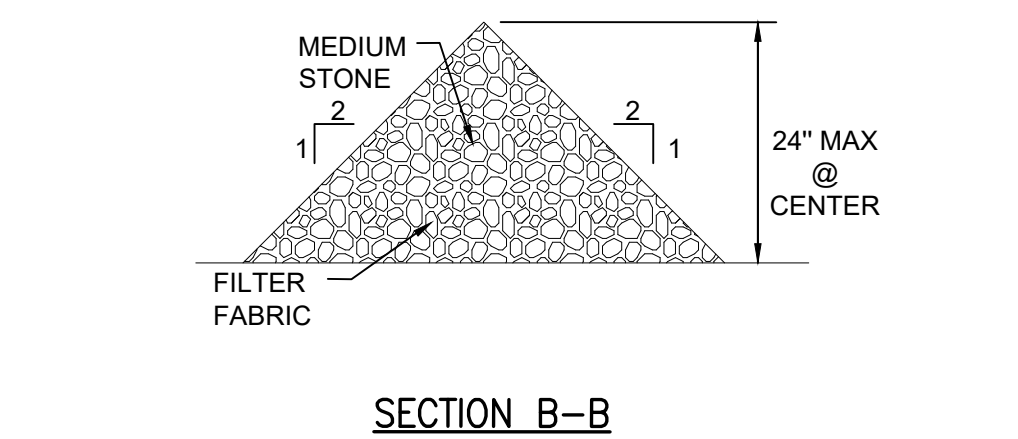
**STABILIZED CONSTRUCTION ENTRANCE**



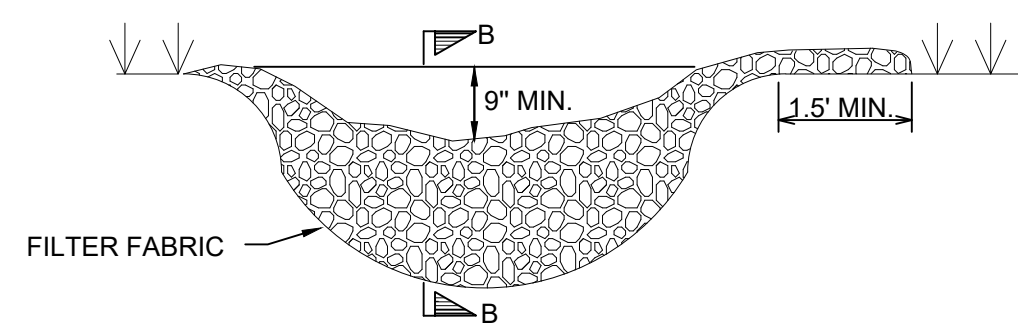
**NOTES:**

- ALL PERIMETER DIKE/SWALE SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
- DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
- DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSION VELOCITY.
- THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED IN THE STANDARD.
- STABILIZATION OF THE AREA DISTURBED BY THE DIKE AND SWALE SHALL BE DONE IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS FOR TEMPORARY SEEDING AND MULCHING, AND SHALL BE DONE WITHIN 10 DAYS.
- PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

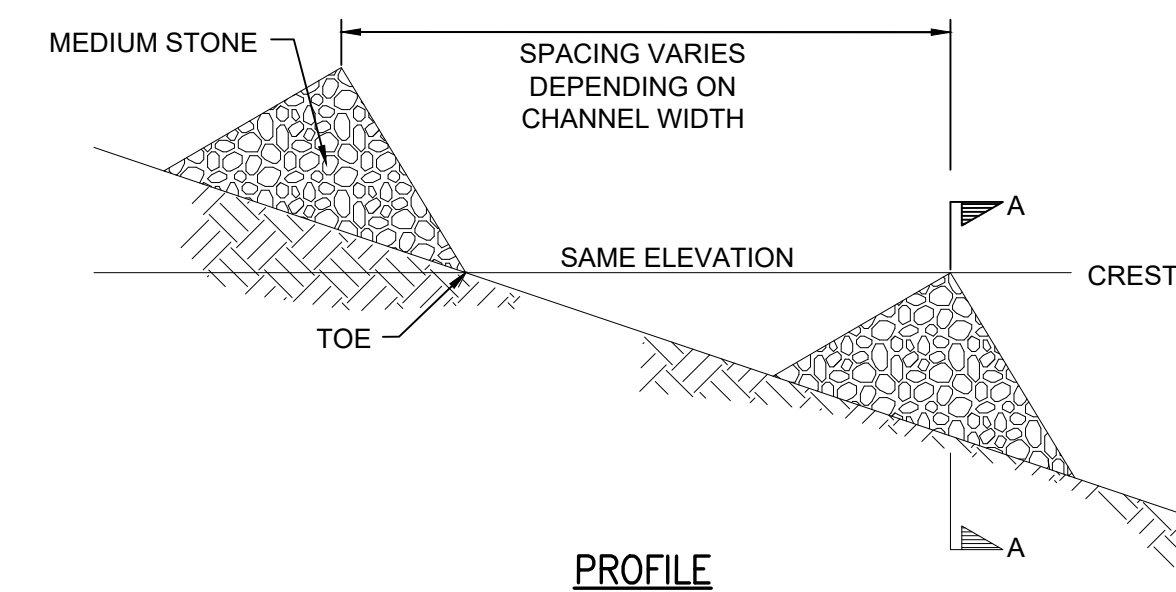
**PERIMETER DIKE**



**SECTION B-B**



**SECTION A-A**

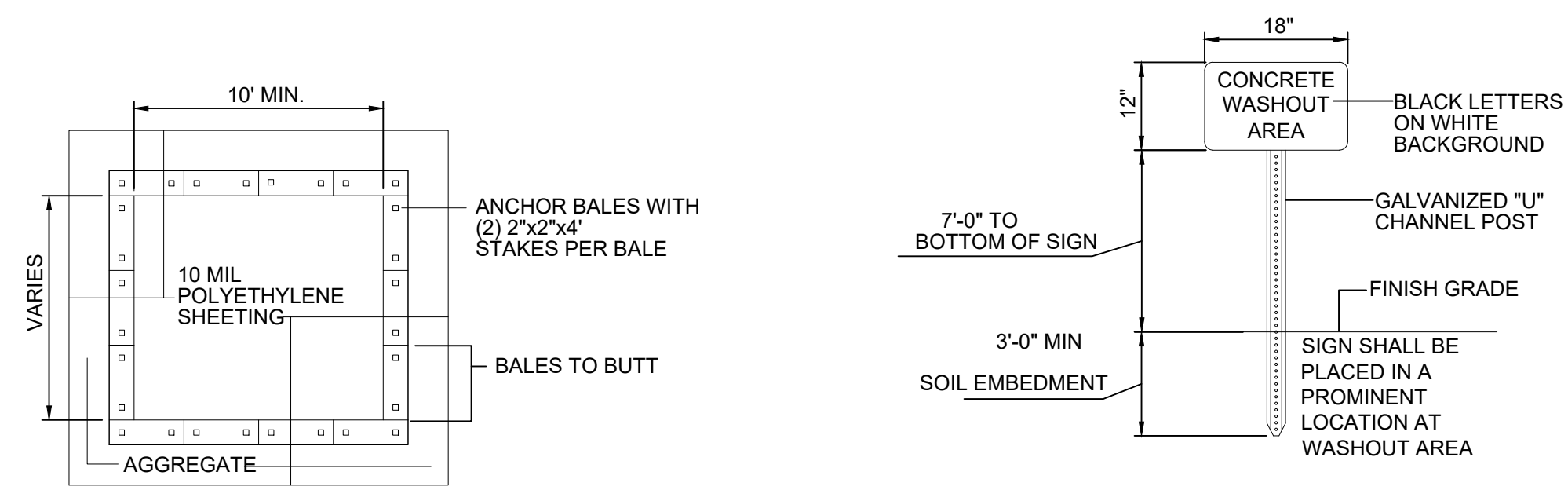


**PROFILE**

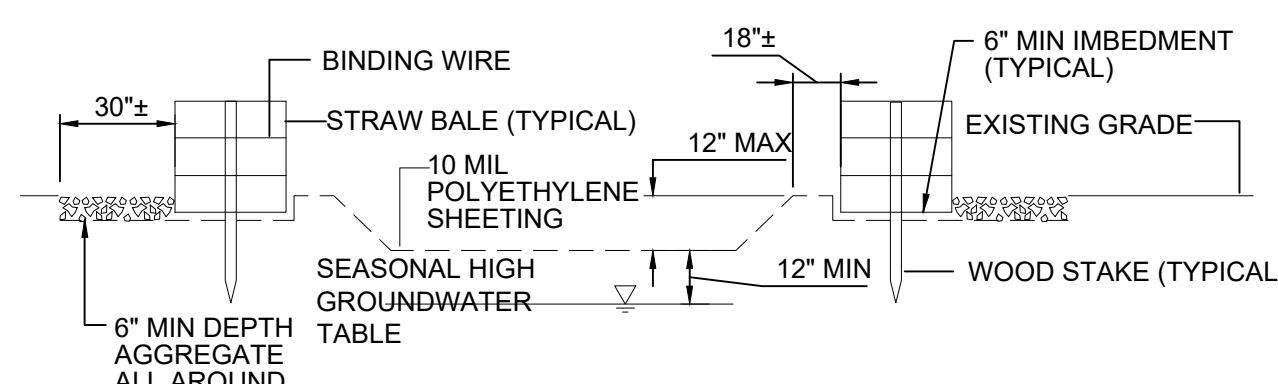
**CONSTRUCTION SPECIFICATIONS**

- STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES GRADES AND LOCATIONS SHOWN ON THE PLAN.
- SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
- EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
- PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
- ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

**LIGHT STONE CHECK DAM**



**WASHOUT SIGN**

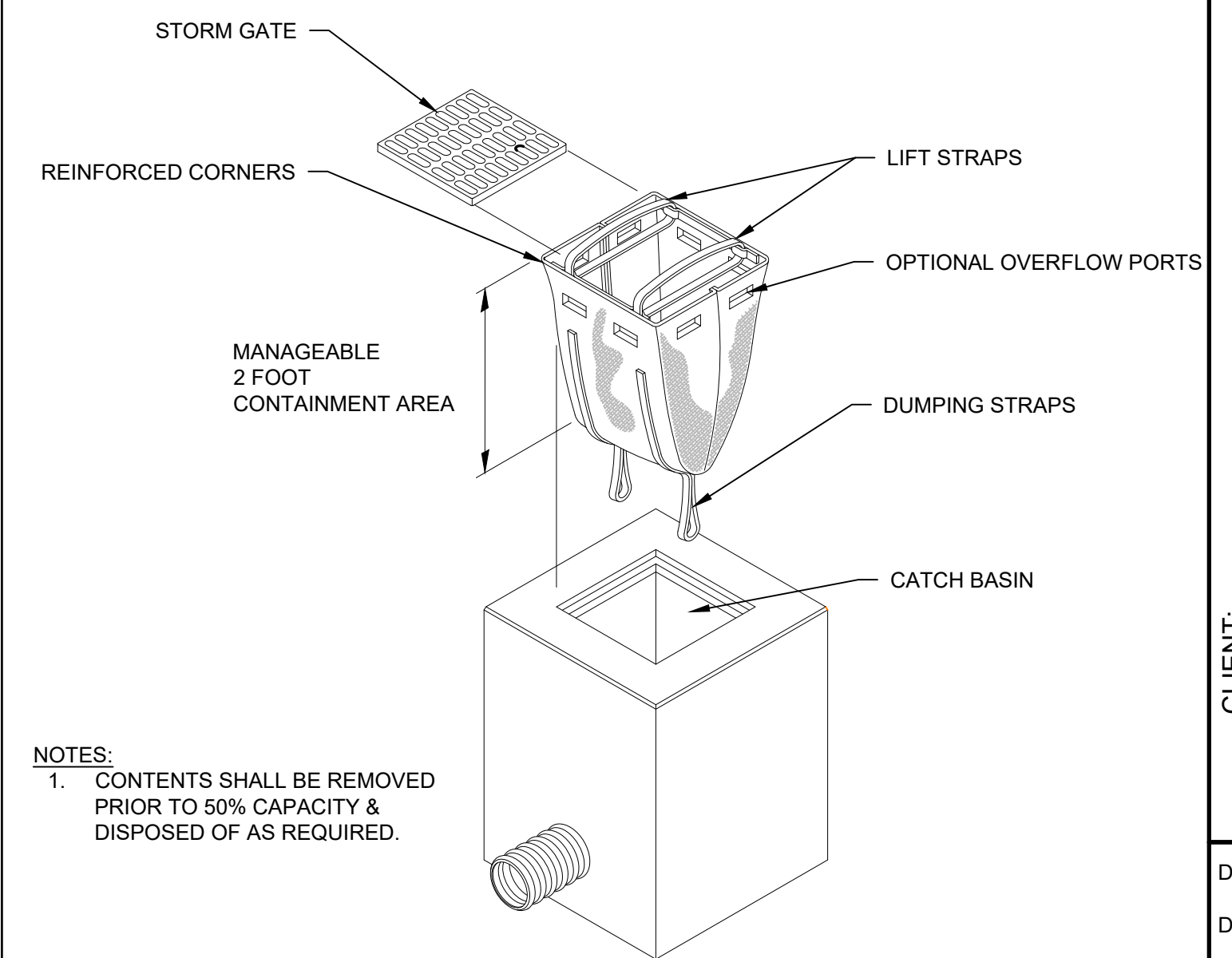


**TYPICAL SECTION**

**NOTES:**

- CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
- CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
- WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
- WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
- ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
- AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

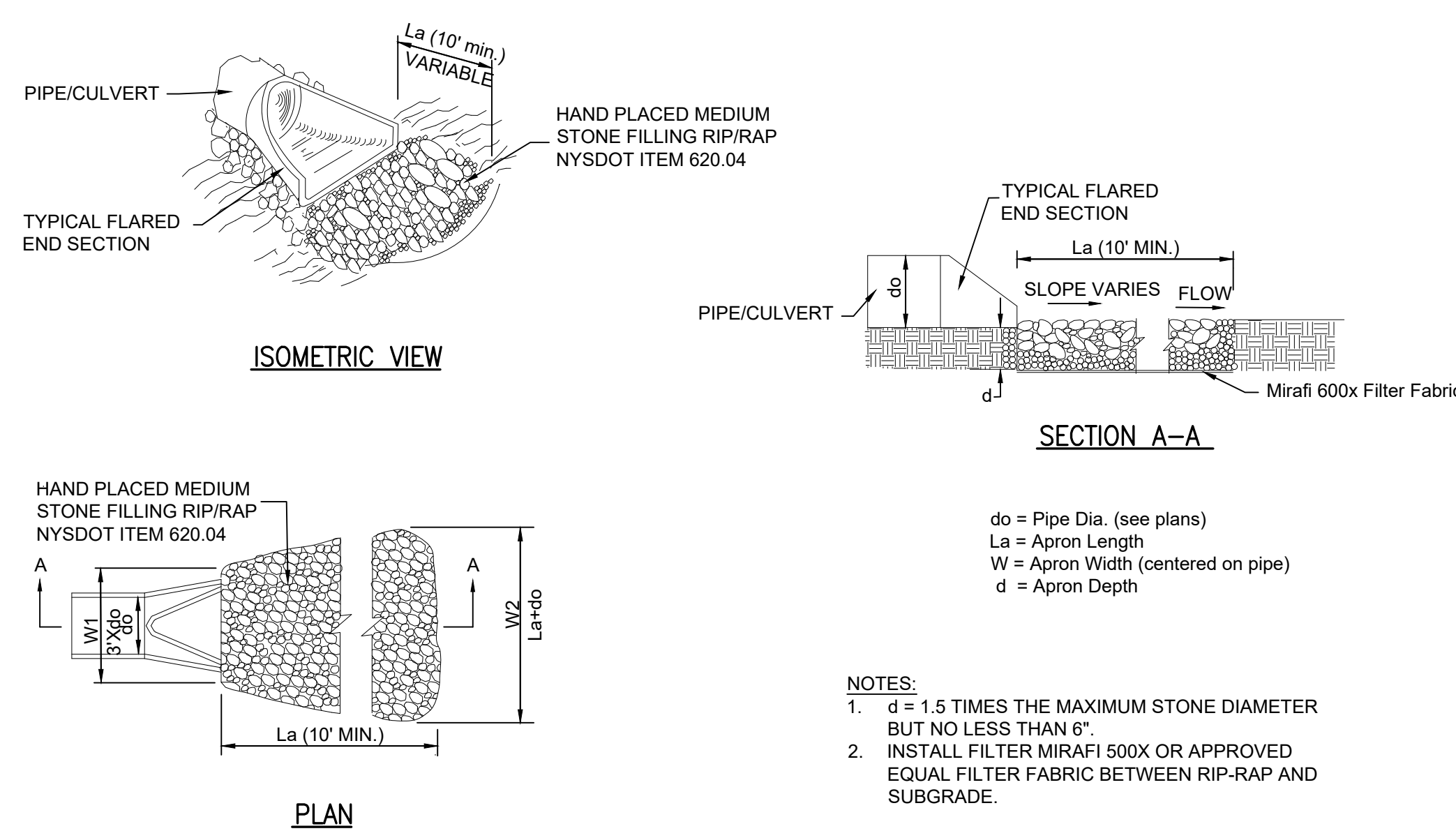
**CONCRETE WASHOUT**



**NOTES:**

- CONTENTS SHALL BE REMOVED PRIOR TO 50% CAPACITY & DISPOSED OF AS REQUIRED.

**INLET PROTECTION**



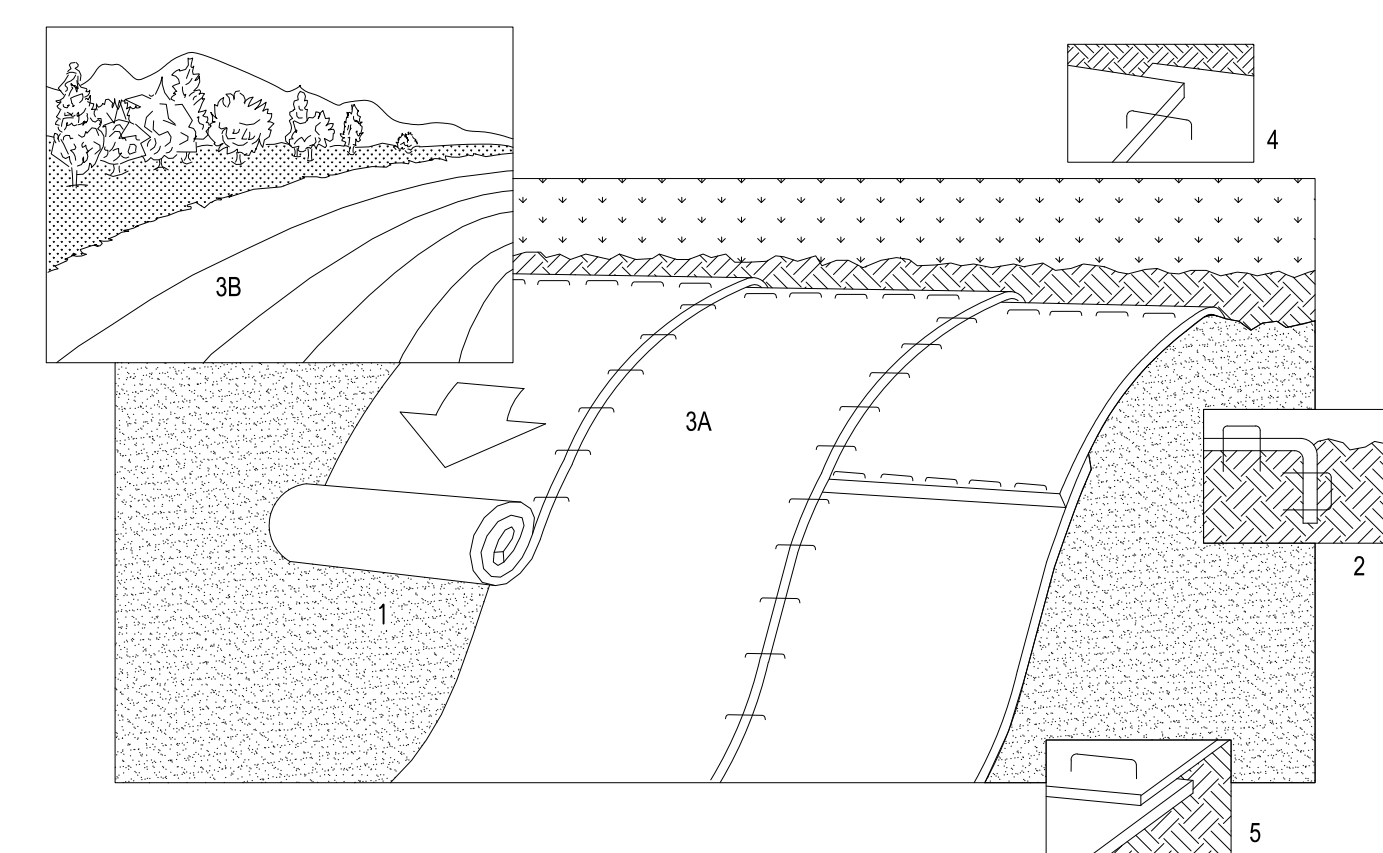
**SECTION A-A**

do = Pipe Dia. (see plans)  
 La = Apron Length  
 W = Apron Width (centered on pipe)  
 d = Apron Depth

**NOTES:**

- d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NO LESS THAN 6".
- INSTALL FILTER MIRAFI 500X OR APPROVED EQUAL FILTER FABRIC BETWEEN RIP-RAP AND SUBGRADE.

**OUTLET PROTECTION - RIP RAP**



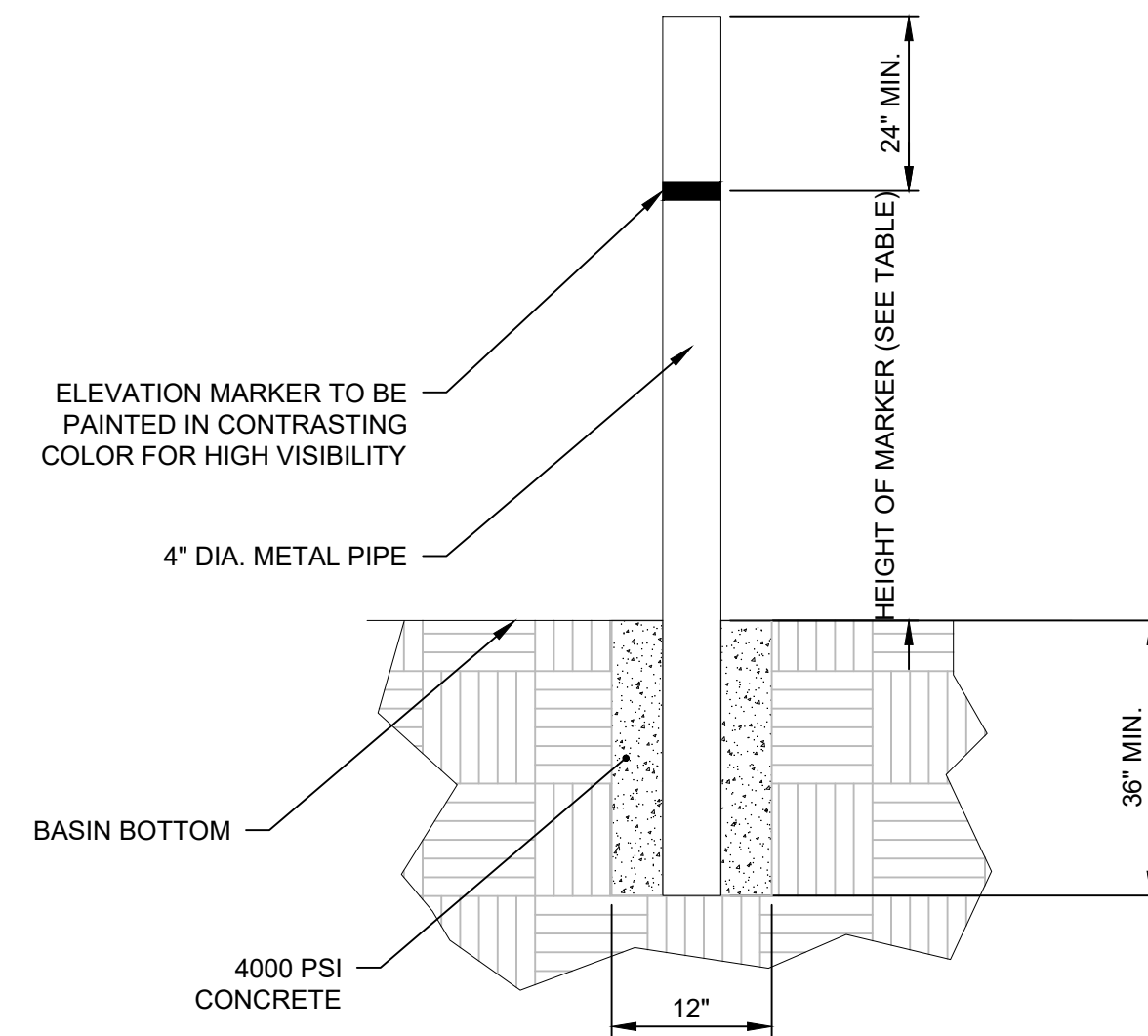
**NOTES:**

REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
- WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
- MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL SUPERCEDE THIS DETAIL.

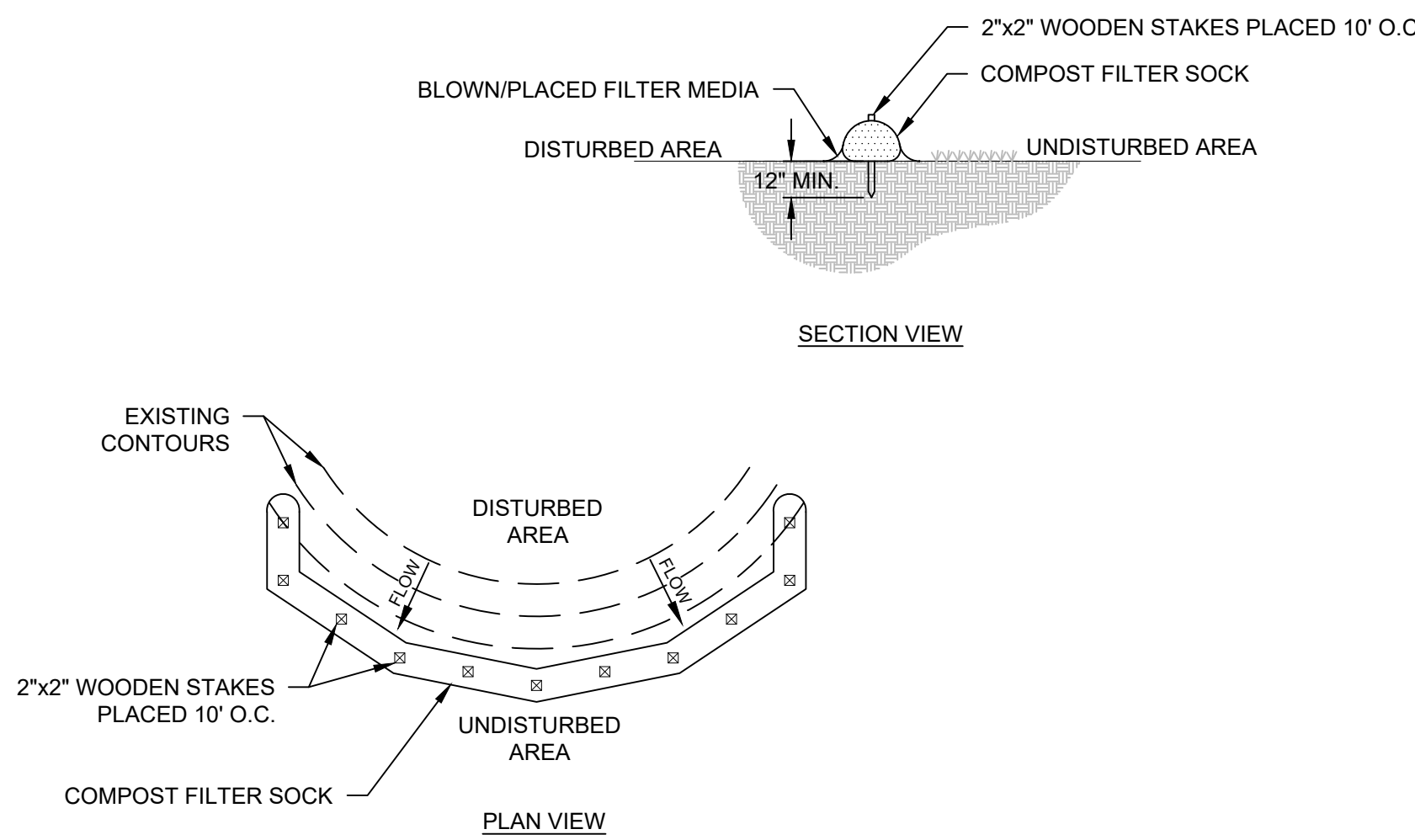
**EROSION CONTROL MAT INSTALLATION**





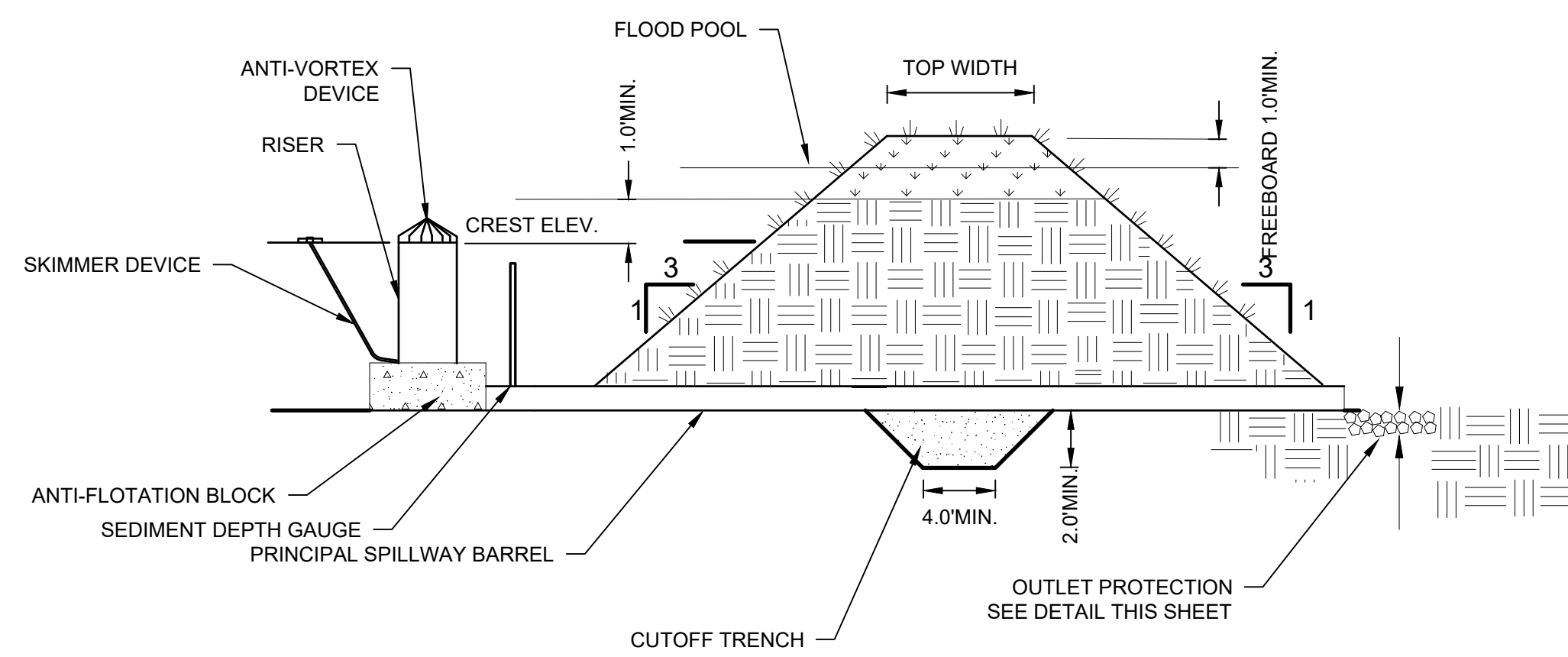
- NOTES:**
- CONTRACTOR SHALL PLACE A 4" DIA. METAL PIPE AT A MINIMUM OF 36" BELOW THE BASIN BOTTOM ELEVATION ENCASED IN 12" OF 4000 PSI CONCRETE.
  - CONTRACTOR SHALL MARK THE CORRESPONDING ELEVATION FOR SEDIMENT STORAGE CLEANOUT ON THE PVC PIPE TO INDICATE WHEN MAINTENANCE IS REQUIRED.
  - SEDIMENT DEPTH GAUGE REQUIRED FOR SEDIMENT BASINS, FOREBAYS, AND INFILTRATION BASINS.

**SEDIMENT DEPTH GAUGE**



- NOTES:**
- SOCK FABRIC SHALL MEET STANDARDS OF TABLE 5.1 OF NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. COMPOST SHALL MEET THE STANDARDS LISTED ON TABLE 5.2 OF NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
  - COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45° TO THE MAIN SOCK ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE X.X OF NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
  - TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
  - ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
  - SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
  - BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  - UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCKS, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

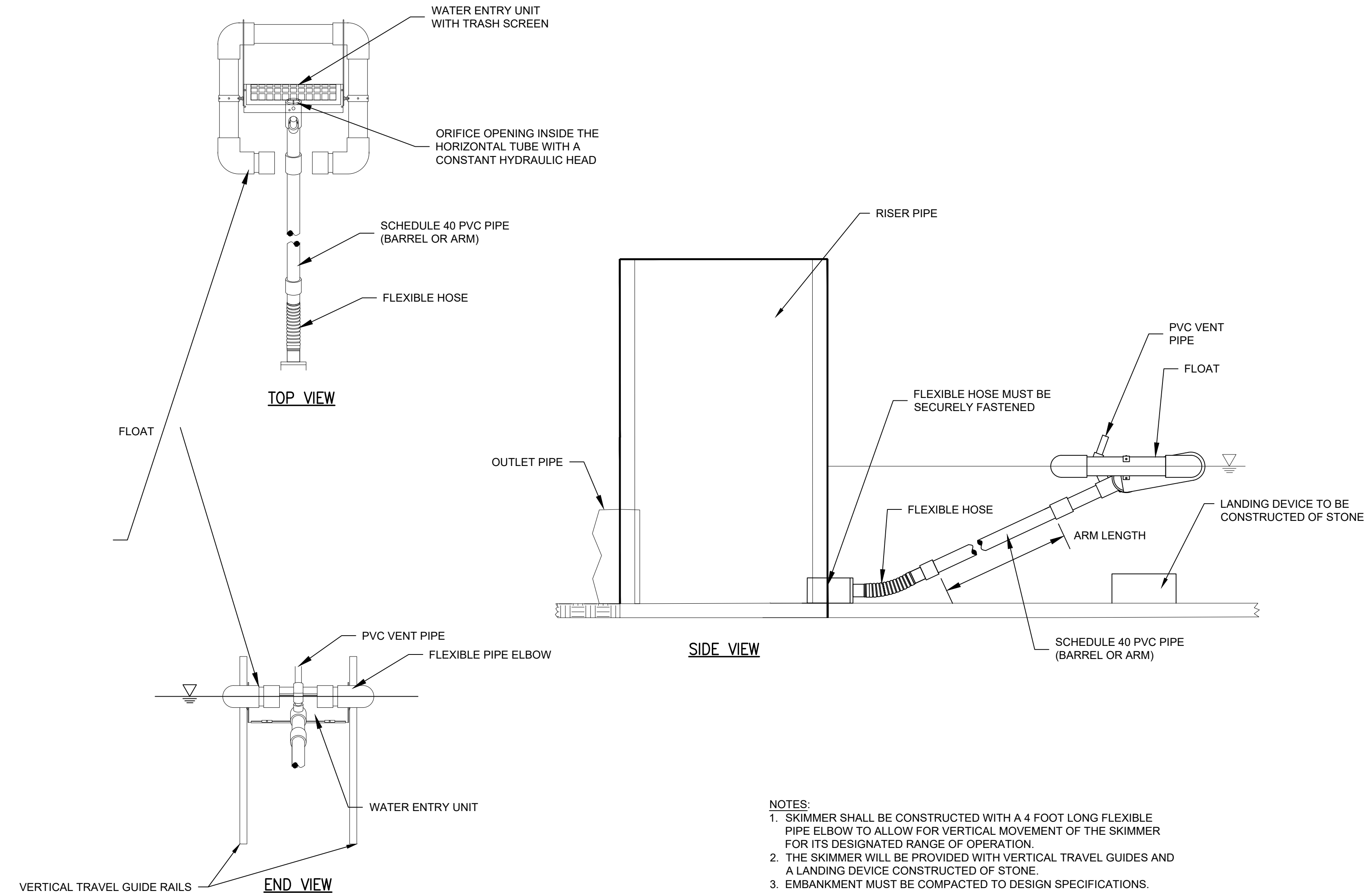
**COMPOST FILTER SOCK**



SEDIMENT BASIN CHART											
BASIN NUMBER	BOTTOM ELEV. (FT)	TOP OF DAM ELEV. (FT)	TOP OF RISER ELEV. (FT)	INV. OUT (FT)	SEDIMENT STORAGE ZONE VOLUME REQ'D (FT³)	SEDIMENT STORAGE ZONE VOLUME PROVIDED (FT³)	SEDIMENT STORAGE ZONE ELEV. (FT)	DEWATERING ZONE VOLUME REQ'D (FT³)	DEWATERING ZONE VOLUME PROVIDED (FT³)	DEWATERING ZONE ELEV. (FT)	CLEANOUT ELEVATION (FT.)
1	10	14	-	-	5300	5300	-	19080	19080	-	-
2	6	14	11	6.5	15200	16370	7.5	54720	55416	11	6.75
3	6	14	11	6.5	33000	36859	7.5	118800	119226	11	6.75

- NOTES:**
- TEMPORARY SEDIMENT BASIN 1 CALCULATIONS HAVE BEEN SHOWN FOR CAPACITY VERIFICATION ONLY.
  - BASIN 1 WILL BE GRADED OUT PER WOV POND DETAIL ON SHEET GR-14. ALL OUTLET STRUCTURES ARE TO BE COVERED WITH FILTER FABRIC DURING CONSTRUCTION. EXCAVATION OF BASIN 1 TO FINAL GRADE ELEVATIONS SHALL OCCUR ONCE FINAL STABILIZATION HAS BEEN REACHED.

**TEMPORARY SEDIMENT BASIN**



- NOTES:**
- SKIMMER SHALL BE CONSTRUCTED WITH A 4 FOOT LONG FLEXIBLE PIPE ELBOW TO ALLOW FOR VERTICAL MOVEMENT OF THE SKIMMER FOR ITS DESIGNATED RANGE OF OPERATION.
  - THE SKIMMER WILL BE PROVIDED WITH VERTICAL TRAVEL GUIDES AND A LANDING DEVICE CONSTRUCTED OF STONE.
  - EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
  - EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
  - INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.

**SKIMMER DEWATERING DEVICE DETAILS**



**McFarland Johnson**  
 60 RAILROAD PLACE  
 SUITE 402  
 SARATOGA SPRINGS, NEW YORK 12866  
 P:518-580-9380 F:518-580-9383  
 SaratogaROM@mjinc.com

PROJECT MILESTONE  
**FINAL DESIGN PLANS**

NO.	DATE	DESCRIPTION

CLIENT:  
**ALBANY PORT DISTRICT COMMISSION**  
 ALBANY, NEW YORK

PROJECT:  
**PORT OF ALBANY EXPANSION SITE**

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	N.T.S.
DATE	JANUARY 2022
PROJECT	18641.00

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 NOT FOR  
 CONSTRUCTION**

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DRAWING TITLE  
**EROSION & SEDIMENT CONTROL DETAILS**

DRAWING NUMBER  
**ESC-08**





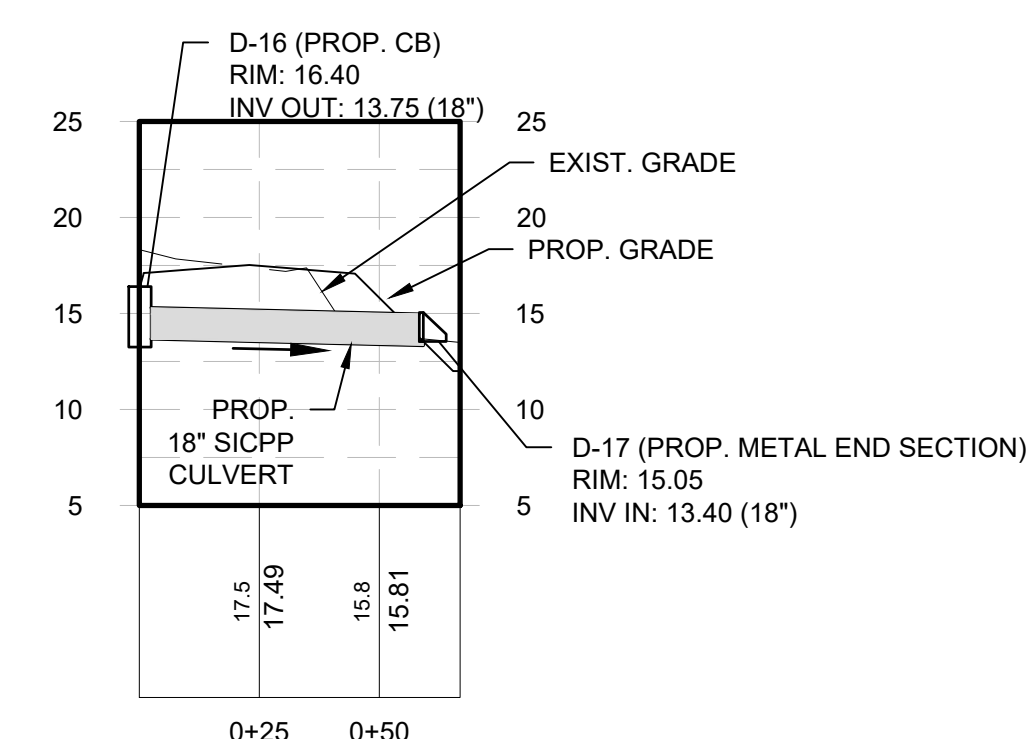
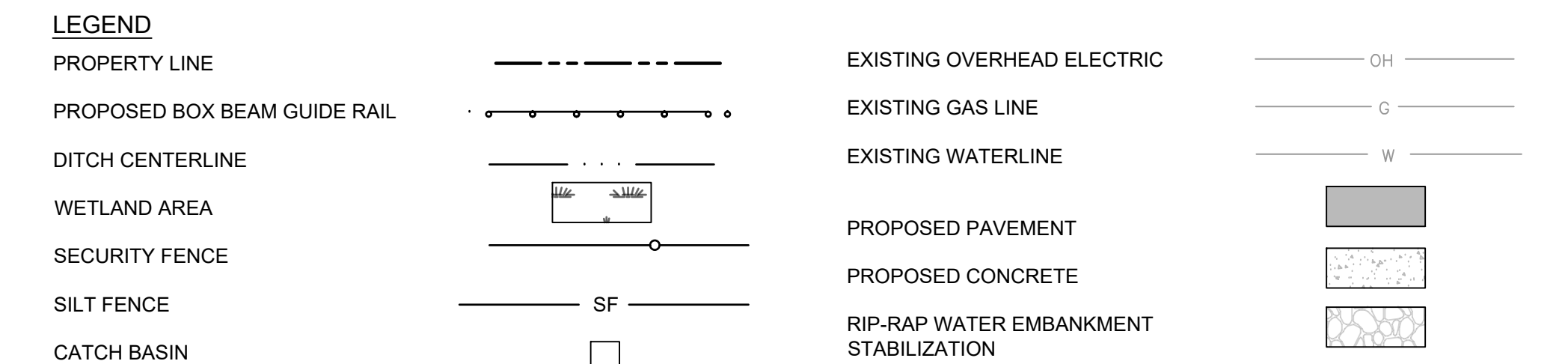
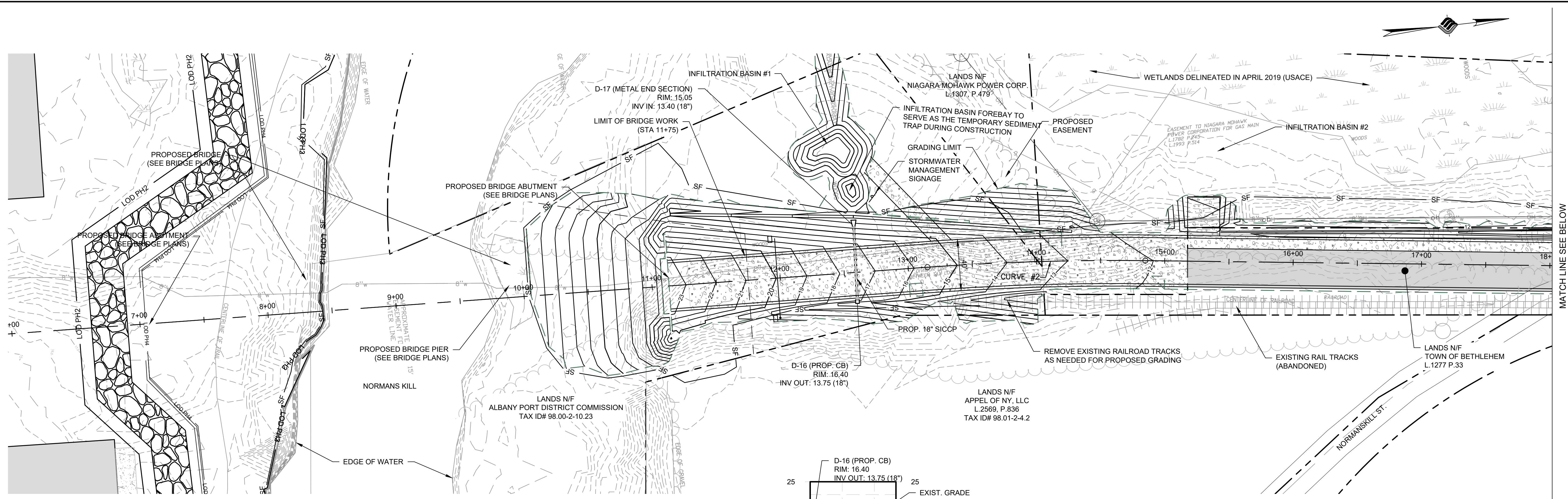
**McFarland Johnson**  
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 SUITE 402  
 SARATOGA SPRINGS, NEW YORK 12866  
 P:518-580-9380 F:518-580-9383  
 SaratogaROM@mjinc.com

PROJECT MILESTONE  
**FINAL DESIGN PLANS**

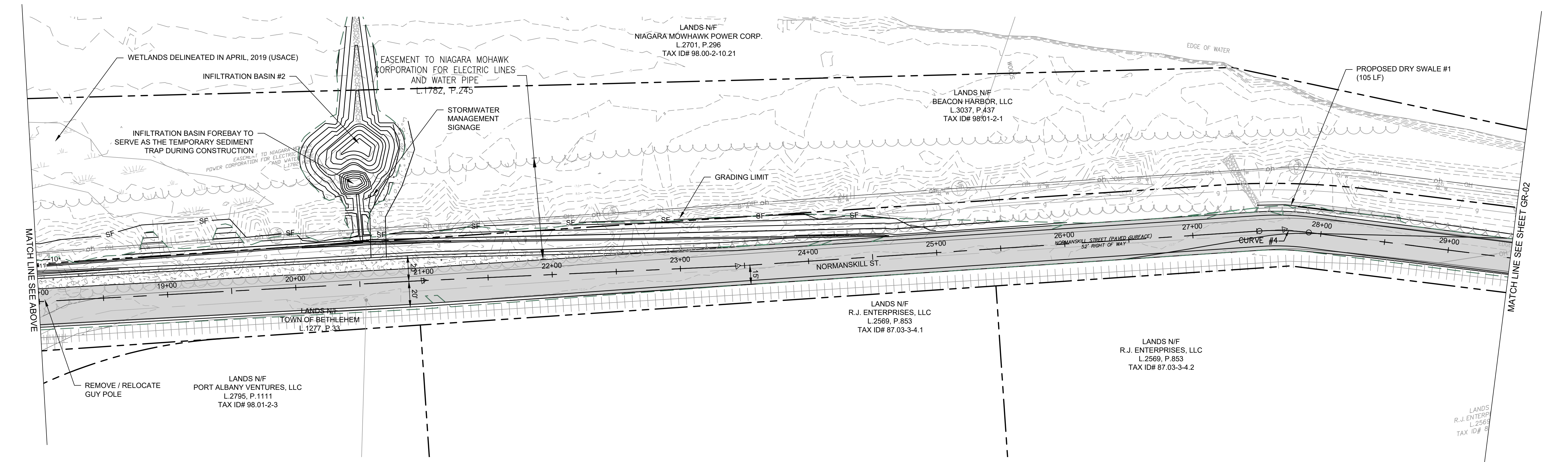
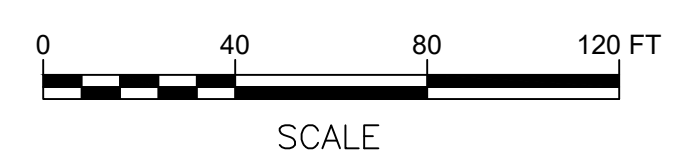
NO.	DATE	DESCRIPTION

CLIENT:  
**ALBANY PORT DISTRICT COMMISSION**  
 ALBANY, NEW YORK

PROJECT:  
**NORMANSKILL ST. REHAB**



**D-16 TO D-17**  
 Horizontal Scale: 1" = 40'  
 Vertical Scale: 1" = 10'



DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	JANUARY 2022
PROJECT	18641.00

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 CONSTRUCTION**

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DRAWING TITLE  
**GRADING, DRAINAGE,  
 EROSION AND  
 SEDIMENT CONTROL**

DRAWING NUMBER  
**GR-01**





**McFarland Johnson**  
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 SUITE 402  
 SARATOGA SPRINGS, NEW YORK 12866  
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 SaratogaROM@mjinc.com

PROJECT MILESTONE  
**FINAL DESIGN PLANS**

NO.	DATE	DESCRIPTION

CLIENT:  
**ALBANY PORT DISTRICT COMMISSION**  
 ALBANY, NEW YORK

PROJECT:  
**NORMANSKILL ST. REHAB**

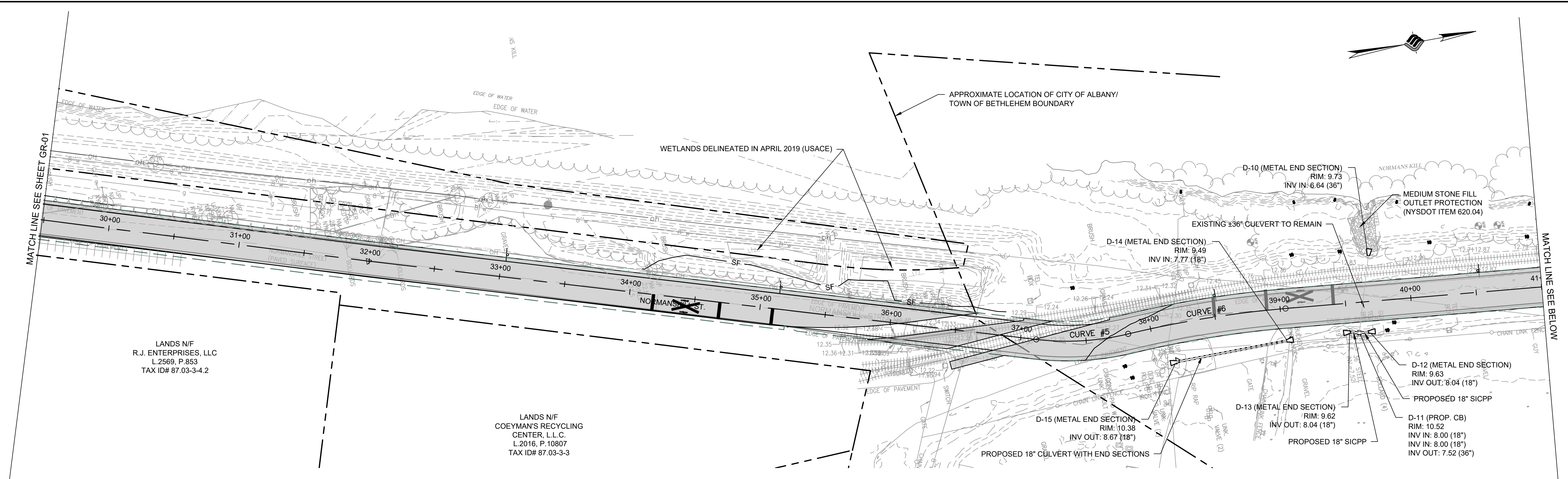
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DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	JANUARY 2022
PROJECT	18641.00

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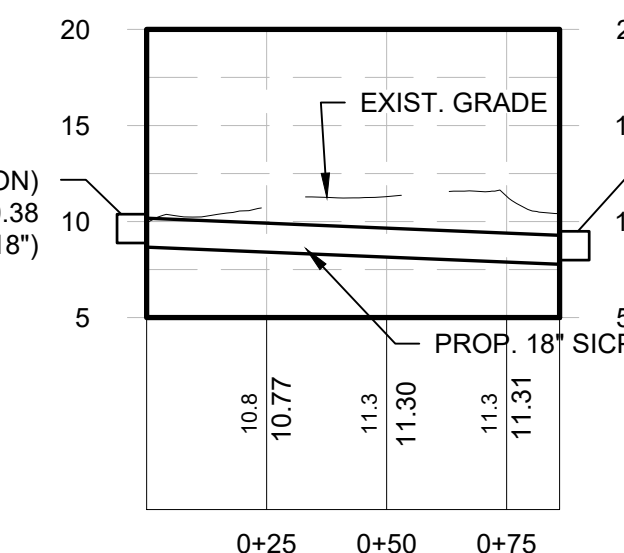
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**GRADING, DRAINAGE,  
 EROSION AND  
 SEDIMENT CONTROL**

DRAWING NUMBER  
**GR-02**

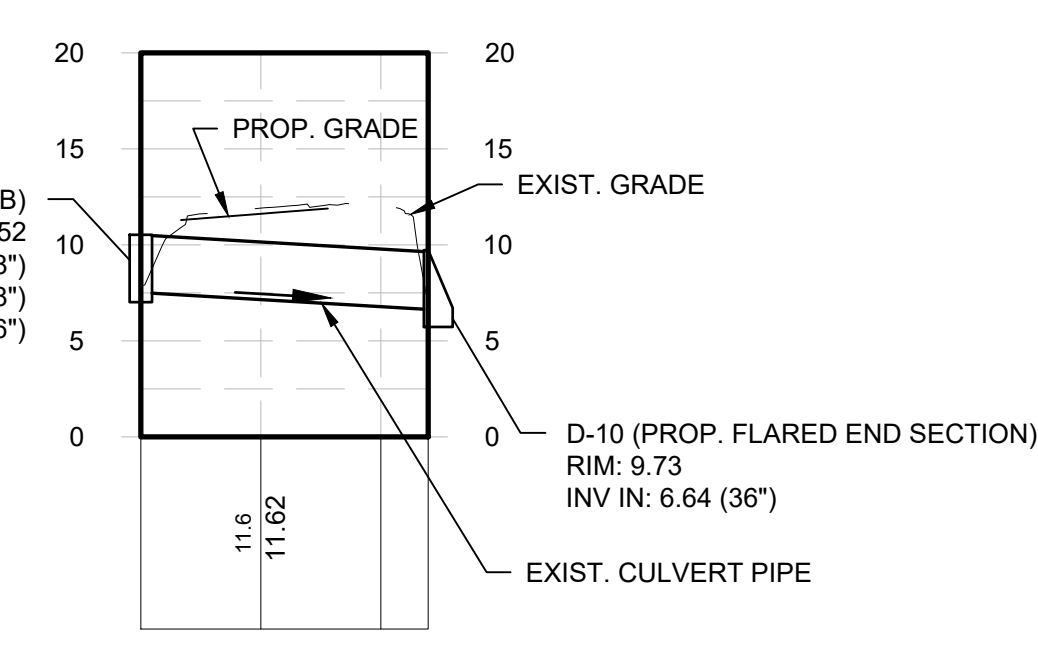


LANDS N/F  
 R.J. ENTERPRISES, LLC  
 L.2569, P.853  
 TAX ID# 87.03-3-4.2

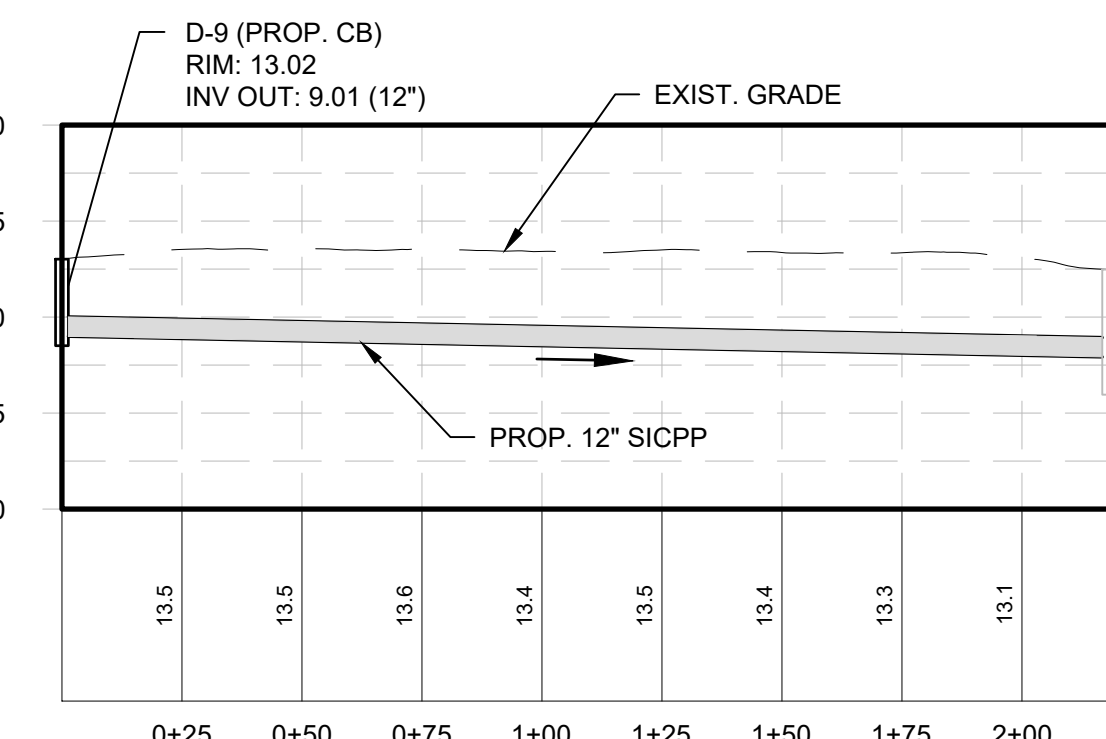
LANDS N/F  
 COEYMAN'S RECYCLING  
 CENTER, L.L.C.  
 L.2016, P.10807  
 TAX ID# 87.03-3-3



**D-15 TO D-14**  
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 Vertical Scale: 1" = 10'



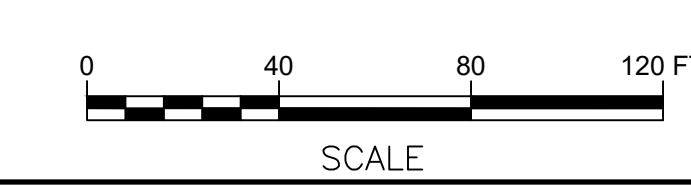
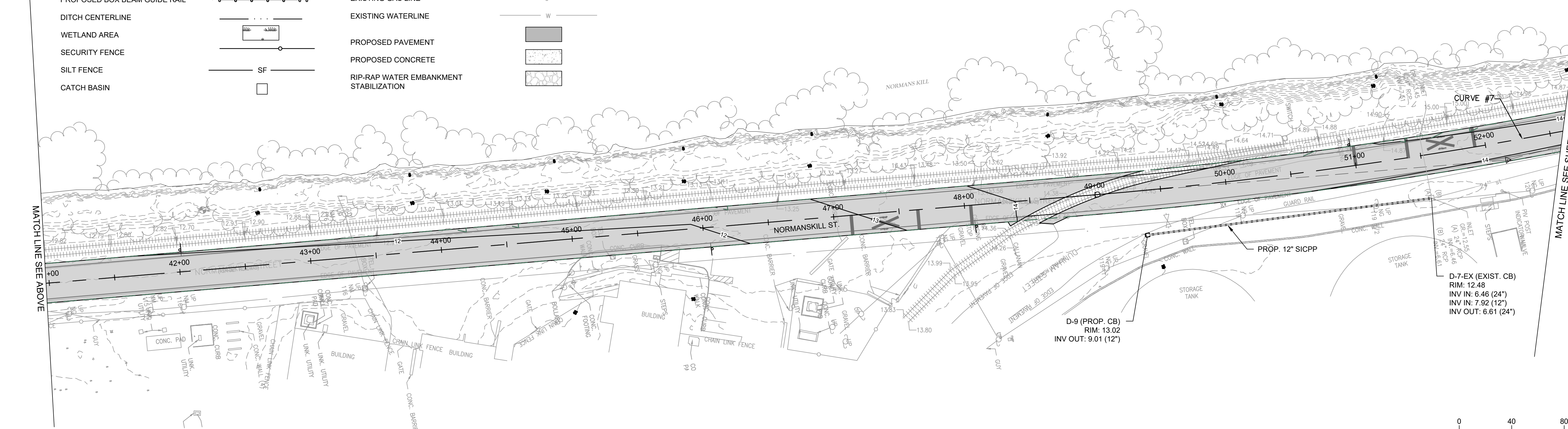
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 Horizontal Scale: 1" = 40'  
 Vertical Scale: 1" = 10'



**D-9 TO D-7-EX**  
 Horizontal Scale: 1" = 40'  
 Vertical Scale: 1" = 10'

**LEGEND**

PROPERTY LINE	---	EXISTING OVERHEAD ELECTRIC	OH
PROPOSED BOX BEAM GUIDE RAIL	—●—	EXISTING GAS LINE	G
DITCH CENTERLINE	—+—	EXISTING WATERLINE	W
WETLAND AREA		PROPOSED PAVEMENT	
SECURITY FENCE	—○—	PROPOSED CONCRETE	
SILT FENCE	SF	RIP-RAP WATER EMBANKMENT	
CATCH BASIN	□	STABILIZATION	







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 SARATOGA SPRINGS, NEW YORK 12866  
 P: 518-580-9380 F: 518-580-9383  
 SaratogaROM@mjinc.com

PROJECT MILESTONE  
**FINAL DESIGN PLANS**

NO.	DATE	DESCRIPTION

CLIENT: **ALBANY PORT DISTRICT COMMISSION**  
 ALBANY, NEW YORK  
 PROJECT: **NORMANSKILL ST. REHAB**

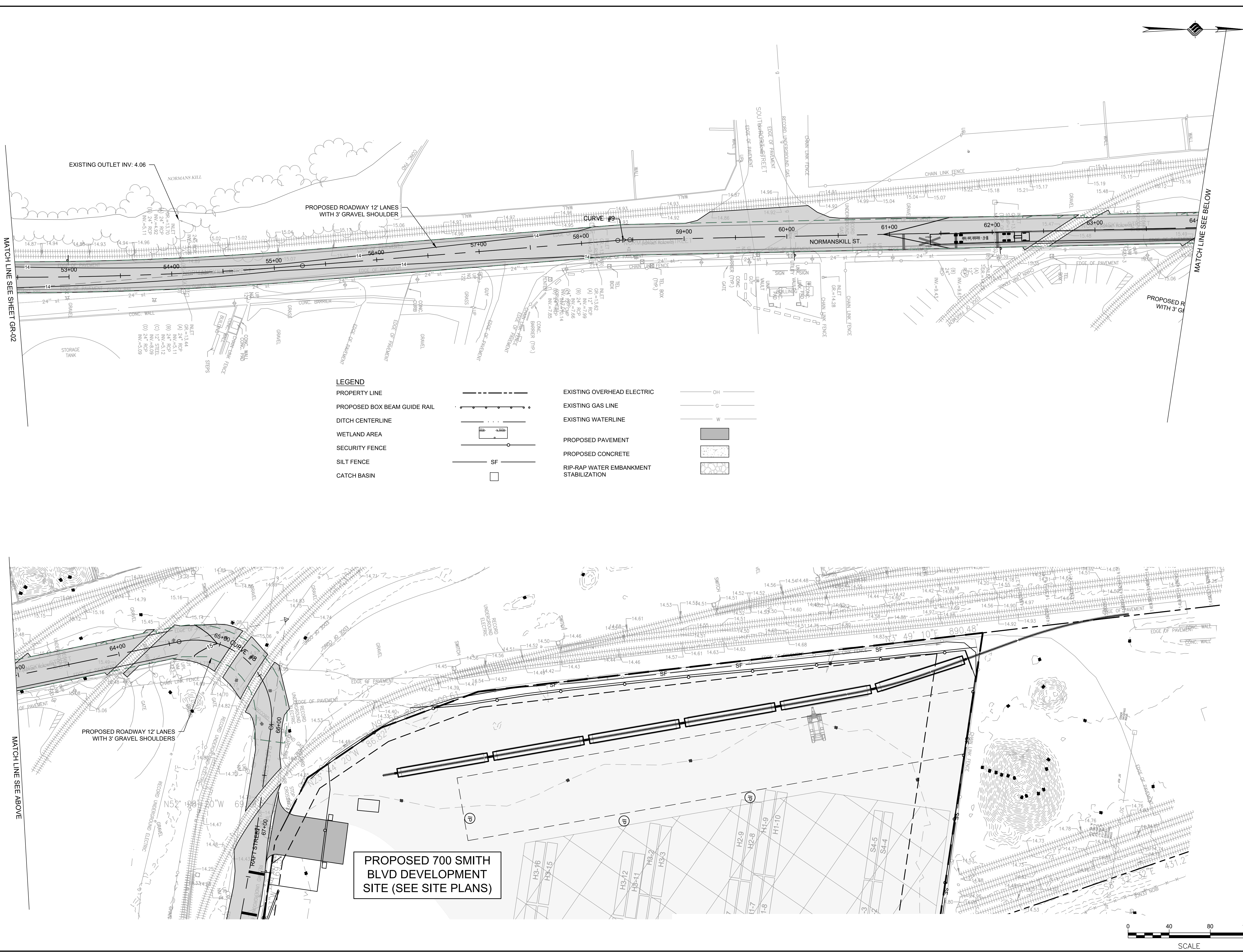
DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	JANUARY 2022
PROJECT	18641.00

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DRAWING TITLE  
**GRADING, DRAINAGE,  
 EROSION AND  
 SEDIMENT CONTROL**

DRAWING NUMBER  
**GR-03**



N:\18641.00 ALBANY PORT EXPANSION\DRAWINGS\DESIGN SHEETS\18641.00 GRADING



# APPENDIX C

## DRAINAGE DESIGN REPORT

# DRAINAGE DESIGN REPORT

FOR

## MARMEN-WELCON TOWER MANUFACTURING PLANT

**TOWN OF BETHLEHEM  
ALBANY COUNTY  
NEW YORK**

**AUGUST 2021**

**UPDATED – OCTOBER 2021**

**UPDATED – JANUARY 2022**

CREATED FOR:



**ALBANY PORT DISTRICT COMMISSION**

**106 Smith Boulevard**

**Albany, NY 12202**

**518-463-8763**

**[www.portofalbany.us](http://www.portofalbany.us)**

CREATED BY:



**McFarland Johnson**

**60 Railroad Place, Suite 402**

**Saratoga Springs, NY 12866**

**518-580-9380**

**[www.mjinc.com](http://www.mjinc.com)**

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- III. Stormwater Management & SPDES Requirements**
  - A. Methodology*
  - B. Water Quality Volume (WQv) / Runoff Reduction Volume (RRv)*
  - C. Channel Protection Volume (CPv)*
  - D. Overbank Flood (Qp)*
  - E. Extreme Storm (Qf)*
  
- IV. Summary of Findings**
  - A. Summary of Results*
  - B. Conclusion*

**Appendix A – Existing Conditions Drainage Map and HydroCAD Report**

**Appendix B – Proposed Conditions Drainage Map and HydroCAD Report**

**Appendix C – Water Quality and Runoff Reduction Volume Calculations**

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**Appendix E – NRCS Soils Report**

## I. General Information

### A. Project Description

This Stormwater Management Report has been developed for a Supplemental Environmental Impact Statement (SEIS) regarding a proposed development at the Port of Albany. The proposed development is an offshore wind (OSW) manufacturing facility that will produce wind turbine tower components. The Project is situated on 81.62 acres of land at the Beacon Island site, located at the confluence of the Normans Kill and Hudson River. The project also includes development within 4.4 acres of the adjoining parcel owned by National Grid, the extension and improvement of Normanskill Street, and widening of Rt. 144. The project owner, Albany Port District Commission (APDC), is proposing to develop the vacant parcels of land (tax parcels 98.00-2-10.23 and 98.01-2-1.0) to expand the existing Port of Albany in the Town of Bethlehem, Albany County, New York.

The proposed project will include development of an OSW tower manufacturing (Marmen-Welcon) facility consisting of five (5) separate buildings totaling up to 625,539+/- square feet of floor space. The following is a breakdown of the function and size of each building:

- Building A Plate Preparation & Welding (299,250 SF)
- Building B Welding Finishing (111,023 SF)
- Building C Blast Metallization Plant (131,968 SF)
- Building D Internal Assembly Finishing (61,550 SF)
- Building E Material Receiving (21,748 SF)

Tower production will occur within four (4) buildings (Buildings A-D) at the main facility on the Port Expansion property located in the Town of Bethlehem. The 5<sup>th</sup> building (Building E) will be located at 700 Smith Boulevard within the existing Port District in the City of Albany. A proposed gated bridge over the Normans Kill will provide a truck transportation route in and out of the main facility, by connecting Beacon Island and the 14.7-acre offsite parcel at 700 Smith Boulevard. In conjunction with the proposed bridge, Normanskill street is to be extended from its existing end point to the bridge. The existing pavement will be improved to accommodate the proposed trucking route. River Road (Rt. 144) will be widened to accommodate the employee entrance. Employee parking will be situated on the adjoining land owned by National Grid with access from River Road. A proposed 500 LF wharf and associated dredging along the Hudson River will be used to load and ship completed tower sections. A separate stormwater analysis and SWPPP has been prepared for the 14.7-acre Building E site at 700 Smith Boulevard and the portion of Normanskill St. located in the City of Albany, as the sites are separated by approximately 1-mile and are under separate MS4 jurisdictions.

Historically, the Port Expansion site was composed of small islands and river channels subject to natural shifts due to flows associated with the Hudson River and the former Island Creek, a side channel of the Hudson River. Island Creek historically flowed along the western side of the site



through the current power line corridor and discharged to the Hudson River at the southern end of the site. Based on available mapping, sometime between 1936 and 1961, Island Creek channel was diverted at the north end of the site directly to the Hudson River, whereupon it was referred to solely as Normans Kill, the main tributary to this former channel. The site was subject to historic filling operations to create usable lands and a portion of the site was operated as a coal ash (fly ash) disposal site by Niagara Mohawk from approximately 1952 to 1970. As such, there are large areas of fly ash deposits on the site that must be considered during the design and construction of the site infrastructure and stormwater management facilities. Excavated fly ash material will need to be appropriately handled and properly disposed of as discussed in Section B below. A soil management plan has been developed and will require a cap over the site.

The purpose of this report is to assess the stormwater quality, quantity, and erosion and sediment control for the development of the site. This report has been developed in accordance with the New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity, GP-0-20-001 (Permit) and the NYSDEC Stormwater Management Design Manual (The Manual). The project site is located within the Town of Bethlehem, Albany County, New York, which is an MS4 community, requiring this report and project to receive approval from the Town. A separate stormwater analysis and SWPPP has been prepared for the 14.7-acre Building E site at 700 Smith Boulevard and the portion of Normanskill St. located in the City of Albany, as the sites are separated by approximately 1-mile and are under separate MS4 jurisdictions.

The overall project limits analyzed in this Drainage Report are broken up into three (3) areas, hereafter referred to as (1) "Expansion Site", (2) "Normanskill Street Improvements", (3) "Offsite Improvements". See Existing Conditions Map (Appendix A) for the location of each of these areas. The Expansion Site is the portion of the project area that is located on Beacon Island. The Normanskill St. Improvement portion begins on the north end of the proposed bridge over the Normans Kill and extends north to the border of the Town of Bethlehem and City of Albany. The Offsite Improvements portion refers to the widening of Rt. 144 adjacent to the employee entrance.

## **B. Soil Classification**

According to the Natural Resources Conservation Service (NRCS) web soil survey, there are five (5) mapped soil units identified within the project boundary (see Appendix E). The majority of the soil at the expansion site falls within the hydrologic soil group B/D. The first letter corresponds to drained soil's properties under drained conditions and the second to saturated conditions. Group B soils have moderate infiltration and runoff rates while group D have a low infiltration rate and a high runoff rate. The soils with dual group identifiers have been modeled with the more conservative of the two, in this case a D soils group. Most of the soil adjacent to Normanskill Street is within soil group A. Group A soils have a high infiltration rate.

The complete list of soils found on the project site is identified in the table below (see Appendix E for NRCS Soils Report).

**Table I – Soils Summary**

Symbol	Soil Name	Hydrologic Soil Group
HuE	Hudson silt loam, 25 to 45 Percent slopes	C/D
NrD	Nassau very channery silt loam, hilly, very rocky	D
Ug	Udorthents, loamy	A
Ur	Urban land	-
Wo	Wayland soils complex, non-calcareous substratum, 0 to 3 percent slopes, frequently flooded	B/D

Geotechnical studies have been undertaken to evaluate the subsurface conditions of the site. These investigations have been summarized in the following reports:

- *Preliminary Geotechnical Evaluation and Interpretive Report*, CME Associates, Inc., April 5, 2017
- *Supplemental Geotechnical Report*, Dente Group, July 20, 2017

Copies of these reports were included in the TOWN OF BETHLEHEM PLANNING BOARD, DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT For ALBANY PORT DISTRICT COMMISSION PORT OF ALBANY EXPANSION PROJECT, Appendix E.

- *Draft Geotechnical Engineering Report*, Terracon, October 15, 2021

A copy of this reports is included in the TOWN OF BETHLEHEM PLANNING BOARD, SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT For ALBANY PORT DISTRICT COMMISSION PORT OF ALBANY EXPANSION PROJECT.

Based on these previous investigations, the subsurface conditions of the Expansion Site portion of the project site are generally characterized by historic fills of various depths overlying, in sequence with depth; river sediments, alluvial sands, glaciolacustrine silt/ clay, glacial till, and shale bedrock. The fill was noted at specific boring locations ranging from 6 to 23 feet below existing grade. The fill material is characterized as a random landfill deposit containing natural and solid waste deposits such as, but not limited to, foundry sand waste, sand, silt, coal ash, gravel, and organic matter. A predominant component of the fill was reported as coal ash.

Shale bedrock was found beneath the glacial till soils at select boring locations. The depth to rock ranged from approximately 61 feet below grade near the northwest portion of the site, to greater than 148 feet at the southeast portion of the site. The rock depths appear shallowest on the

north and west sides of the site and increase to the east towards the Hudson River and in a south direction across the site. Based on the New York State Museum and Science Service's Geologic Map of New York: State Hudson-Mohawk Sheet, and the geotechnical rock core samples, the bedrock appears to be consistent with the Normans kill Shale Formation.

According to the geotechnical reports, shallow groundwater was observed at depths ranging from approximately 1.5 to 13.7 feet below existing grade. However, due to the subsurface conditions, the shallower observations could be representative of perched groundwater zones due to discontinuous impermeable layers. Shallow groundwater fluctuations should be expected to occur at this site depending on several factors such as rainfall, seasonal changes, prevailing climate, ambient weather conditions, and the tidal influences of the Hudson River.

A soil management plan (SMP) has been prepared in accordance with the NYSDEC regulations. The SMP is included in SWPPP. The SMP pertains only to the Expansion Site portion of the project.

## **II. Hydrology**

### **A. Existing Conditions**

The existing drainage area totals 108.4 +/- acres, separated by the Normans Kill. The drainage area is bordered by the Hudson River to the east. At the south boundary there is a Public Service Energy Group (PSEG) power plant, and to the west a parcel owned by National Grid that conveys overhead electric transmission lines as well as an underground gas main. The Port Expansion site consists primarily of brush and trees with a small gravel area as well as abandoned railroad tracks. The Normanskill St. site consists of an existing road as well as brush and trees to the west. The Offsite Improvements consist of the existing roadway as well as brush and trees to the east and west.

The existing drainage condition is split up into seven (7) drainage areas. Drainage areas DR-A, DR-B and DR-F drain to analysis point #1, drainage areas DR-D and DR-E drain to analysis point #2. Drainage area DR-G drains to analysis point #3. Drainage area DR-C drains to a self-contained depression for storage. See Appendix A for the Existing Conditions Drainage Map.

Runoff from DR-A site travels via sheet and shallow concentrated flow directly to a wetland located in the northwest corner of the site (Wetland 1). During large storm events the wetland overflows into an existing 40" pipe with direct outlet to the Normans Kill. Analysis of the existing capacity of the outlet pipe is provided in section IV below. Runoff from areas DR-B, DR-D, DR-E, and DR-F travel via sheet and concentrated flow to low areas with eventual outfall directly to the Normans Kill and Hudson River. An approximately 30-acre internal portion of the site (DR-C) was determined to be self-contained within the site capable of storing and infiltrating the 100-year storm event. Runoff from area DR-G sheet flows to the west side of River Road and travels to a low spot adjacent to the roadway where it is stored and eventually infiltrated.

A wetland delineation was conducted in April 2019 by McFarland Johnson for the FGEIS. The results of the delineation indicated that there are 8 freshwater wetlands located within the project limits. These wetlands are hereafter referred to as Wetlands 1, 3, 4, 5, 6, 7, 8, and 9. Wetlands within the original study are totaled approximately 2.33 acres.

A Supplemental Wetland Delineation was performed by MJ in April 2021 of the 18.22 acres on the National Grid Parcel. One contiguous wetland, comprising a total of approximately 7.13 acres, was delineated within the 18.22-acre area. The delineated wetland represents an extension of the 2019 wetland delineation and previously identified as Wetland 1. Wetland 1 drains in a northerly direction into 40-inch corrugated metal pipe (CMP) which discharges directly to the Normans Kill.

The existing site falls within the Normans Kill watershed of the Middle Hudson Sub-Basin for the Lower Hudson River Basin (HUC10: 0202000602, Water Index No H-221-4) which is listed as a Class C water. Neither the Normans Kill nor the Hudson River are listed in the Manual's Appendix C as a watershed where enhanced phosphorus removal standards are required. Additionally, neither are listed in the Manual's Appendix E as a watershed impaired by pollutants related to construction activity.

## **B. Proposed Conditions**

The proposed Port Expansion Site development includes 603,791 +/- square feet of OSW manufacturing facility space spread out over four (4) separate buildings. Ancillary impervious areas include parking for automobiles and trucks, a roadway, bridge, and a maritime wharf. The remainder of the site will be used for tower storage and be made up of dense graded aggregate. There will also be small pervious areas of grass and unaltered brush and trees.

The Normanskill Street improvements are along a 0.52 mile stretch of roadway within the Town of Bethlehem. A new portion of Normanskill Street is to be constructed from the proposed vehicle bridge north to the existing roadway. This extension is approximately 925 feet long and will be dense graded aggregate. The existing portion of Normanskill Street to be widened on the west side of the roadway. The remaining portion of the existing roadway will be re-paved and not disturbed, as subbase will remain. A top course mill and fill of 1.11 acres is proposed. The improvements also include the required corresponding stormwater conveyance and treatment.

The Offsite Improvements consist of widening an approximately 600 LF stretch of Rt. 144 adjacent to the expansion site employee entrance. The roadway is to be widened by 7 +/- ft on the east side. The new impervious area is 0.14 acres. Corresponding grading is also part of the offsite improvements.

The total post-development drainage area will be 108.6 acres. The post-development drainage area is larger than the pre-development area by 0.2 acres due to the proposed bridge over the Normans Kill. The total disturbance for construction of the site will be approximately 72.7 +/-

acres.

The proposed drainage condition is split up into seventeen (17) drainage areas. Drainage areas DR-1, DR-2, DR-3, DR-4 and DR-11 drain to analysis point #1 and Drainage areas DR-5, DR-6, DR-7, DR-8, DR-9, DR-10, DR-12, DR-13, DR-14, DR-15, and DR-16 drain to analysis point #2. Drainage area DR-17 drains to analysis point #3. Each analysis point remains the same in the pre- and post-development condition for comparison. See Appendix B for the Proposed Conditions Drainage Map.

On the Expansion Site, runoff from the proposed impervious areas will travel via sheet and shallow concentrated flow to one of seven (7) closed drainage networks. Drainage networks 1-7 will be conveyed through a NYSDEC approved stormwater filtering system which will provide water quality volume treatment prior to being discharged into the Normans Kill or Hudson River.

Runoff from DR-8 and DR-9 will be conveyed via vegetated swales to Micropool Extended Detention Ponds (Type P-1 per the Manual). The ponds will provide water quality volume treatment. The portion of the water held above the wet pool will be slowly discharged to the surrounding area over a 24-hour period. The ponds will also hold larger storm events up to the 10-year storm. During the 10-year storm and larger, emergency spillways outlet to the surrounding vegetated area, eventually flowing to Wetland #1.

Drainage Areas DR-10, DR-11, and DR-12 maintain their existing drainage patterns.

Drainage areas 13 and 14 correspond to sections of new Normanskill St roadway. In each area, stormwater is collected via roadside swales and directed into a sedimentation basin which overflows into an infiltration basin. The basins are designed to infiltrate the WQv as well as smaller storm events. During large storm events water will overflow to the Normans Kill.

Drainage area 15 corresponds to a section of Normanskill St that is being expanded to the west. Stormwater is collected via a roadside swale with a dry swale at the end. In large storm events, water will flow through the dry swale to an overflow trench to be discharged to the surrounding vegetated area, eventually flowing into the Normans Kill. Drainage Area DR-16 will not be disturbed in the development of this project and will continue to drain into the Normans Kill.

Drainage area 17 will collect runoff on Rt. 144 via a roadside swale with a dry swale at the end. In large storm events, water will flow through the dry swale to an overflow trench to be discharged to the surrounding area. The surround area is self-contained and eventually infiltrates stormwater runoff.

The overall drainage plan incorporates multiple separate systems with outlets to the Normans Kill and/or Hudson River to avoid a more concentrated larger outlet for the site. See Appendix B for proposed conditions plans and watershed mapping.

### III. Stormwater Management & SPDES Requirements

The Proposed Development Project will have land disturbance of more than 1-acre, a full SPDES permit will be required, and a Stormwater Pollution Prevention Plan (SWPPP) will be developed in accordance with the Permit regulations and MS4 requirements as part of the Town of Bethlehem site plan approval process. A 5-acre waiver will also be requested in order to disturb more than 5 acres at one time.

Due to the presence of fly ash on the Expansion Site, in addition to a NYSDEC SPDES, a Site Management Plan (SMP) has been prepared in accordance with 6 NYCRR Part 375 and DER Technical Guidance for Site Investigation and Remediation and submitted to the NYSDEC, Division of Environmental Remediation and the NYSDOH. The SMP includes: a Health and Safety Plan (HASP), to inform and protect the contractor and their work force; a Community Air Monitoring Plan (CAMP), to monitor and protect the surrounding communities; and an Excavation Work Plan (EWP), to direct the activities of the contractor during construction. The EWP includes a detailed description of the work to be performed, the anticipated environmental conditions, and engineering controls to mitigate the movement of fly ash. The SMP has been included in the SEIS and SWPPP.

The SWPPP will be prepared in coordination with the Manual and meet the following criteria as the principal objectives contained in an approved SWPPP:

- Reduction or elimination of erosion and sediment loading to waterbodies during construction activities. Controls will be designed in accordance with the NYSDEC's New York State Standards and Specifications for Erosion and Sediment Control.
- Mitigate the impact of stormwater runoff on the water quality of the receiving waters.
- Maintenance of stormwater controls during and after completion of construction.

These objectives will be accomplished by incorporating design criteria outlined within the Technical Guidelines provided by The Manual and summarized below.

#### A. Methodology

To analyze the hydrologic impacts of the proposed development, a storm water management model was developed in accordance with the Manual. HydroCAD™, by HydroCAD Software Solutions LLC was used to model both the existing and proposed conditions: soil data from the NRCS Web Soil Survey was entered into the software; land coverage areas were estimated using aerial photography and site visits; watershed areas were developed using the surveyed topography; time of concentrations were estimated using USDA, Urban Hydrology for Small Watersheds, TR-55 (TR-55) methodology; and finally runoff and routing calculations were performed using the SCS Unit Hydrograph method.

The following rainfall depths were utilized in the analysis of the 1, 10, and 100-year storm events:

**Table II – Hydrologic Analysis Data**

Storm Event	Rainfall Depth (in.)
1-year	2.20
10-year	3.63
100-year	6.11

Rainfall depths were determined using the Northeast Regional Climate Center (NRCC) data for Albany County. The rainfall intensity utilized is the Type II-24 hour storm. This data is pre-programmed in the HydroCAD software.

Green Infrastructure practices were designed in accordance with the Manual using the NYSDEC Runoff Reduction Worksheets available through the NYSDEC’s Construction Stormwater Toolbox, available on their website.

The following general steps are followed when conducting a stormwater design:

1. Site Planning: The existing natural resource areas and drainage patterns including wetlands, waterways, floodplains, and soils are identified. Conservation of natural resources are maximized given the proposed site.
2. Pre and Post-Development Conditions Analysis: The pre and post-development stormwater runoff conditions for the 1, 10, and 100-year storm events are determined using HydroCAD (detailed HydroCAD reports for this project can be found in Appendices A and B).
3. Water Quality: The Water Quality Volume and Runoff Reduction Volume are calculated using Chapter 4 of the Manual and Green Infrastructure Worksheets (provided in Appendix C).
4. Water Quantity: Peak runoff and stormwater retention/detention are evaluated using the Manual.

#### **B. Water Quality Volume (WQv) / Runoff Reduction Volume (RRv)**

Section 4.2 of the Manual states that Water Quality Volume (WQv) is intended to improve the water quality by capturing and treating runoff from small, frequent storm events that contain higher pollutant levels created through the increase of impervious surfaces. Impervious surfaces accumulate pollutants that quickly wash off and rapidly enter downstream waters as well as prevent natural groundwater recharge.

The WQv required for the proposed site is based upon the 90% rainfall event number, percent of impervious cover, and the total site area. Calculations were done using the Green Infrastructure worksheets and can be found in Appendix C. The total WQv required is 273,007 cubic feet.

Runoff Reduction Volume (RRv) is the reduction of the total WQv by application of green infrastructure techniques and stormwater management practices to replicate pre-development hydrology more closely. The intent of RRv is to recognize the water quality benefits of certain site



design practices to address flow as a pollutant of concern.

According to Section 4.3 of the Manual, RRv may be calculated based on three methods:

1. Reduction of the practice contributing area in WQv
2. Reduction of runoff volume by storage capacity of the practice
3. Reduction using standard SMPs with runoff reduction capacity

The minimum RRv required by the proposed site is based on the total area of new impervious cover and the Hydrologic Soil Group (HSG) Specific Reduction Factor (S). The specific reduction factor is based on the HSGs present at the existing site. Calculations were done using the Green Infrastructure worksheets and can be found in Appendix C. The minimum RRv was determined to be 57,313 cubic feet.

As noted in the SMP, due to the level of contamination present in the existing soils across the Expansion Site, stormwater infiltration is not a permissible practice for this portion of the overall project. Without the capability to infiltrate stormwater runoff, all treatment practices selected for the expansion site do not include RRv.

However, for both the Normanskill St. and Offsite Improvements, treatment practices selected utilize infiltration and therefore include RRv. Neither of these areas contain contaminated soil and are not part of the Site Management Plan.

The minimum RRv as required by the entire project is not met, however the total volume of water to be treated (WQV) is satisfied. The RRv is summarized in Table II below:

**Table III – Practices Providing Runoff Reduction**

<b>Drainage Area</b>	<b>Practice</b>	<b>RRv (cf)</b>
DR-13	Infiltration Basin	1,995
DR-14	Infiltration Basin	2,245
DR-15	Dry Swale	87
DR-17	Dry Swale	127
<b>Total RRv</b>		<b>4,454</b>

The following stormwater treatment practices were designed to meet the WQv requirements of the Manual:

#### *Stormwater Ponds*

Two stormwater ponds (Pond #1 and Pond #2) have been designed as Micropool Extended Detention Ponds (P-1) in accordance with the Manual. Ponds #1 and #2 treat stormwater runoff from drainage areas DR-8 and DR-9 respectively. Runoff from these areas sheet flow to a vegetated swale and outlet into the forebay of the pond. As required by the manual, the permanent pool volume is a minimum 20% of the WQv. Any stormwater held above the permanent pool elevation will be slowly discharged from the pond over a period of 24 hours. In



larger storm events, the ponds will provide a “first flush” treatment for up to a 10-year storm event with stabilized emergency spillways to direct flow from larger event greater than a 10-year event to the surrounding area. Due to the topography of the surrounding undisturbed area, water will flow toward Wetland #1. A pre- and post-development analysis of the inflow to Wetland #1 has been included in Section IV below. The post-development runoff going to Wetland #1 does not exceed the pre-development condition. Detailed design of the stormwater ponds can be found on page GR-13 of the Expansion Site plan set.

#### *Manufactured Stormwater Filtering Units*

Seven stormwater filtering systems have been designed to treat runoff from drainage areas DR-1, DR-2, DR-3, DR-4, DR-5, DR-6, and DR-7. Runoff from these areas sheet flows to its respective closed drainage system and is treated through a filtering manhole unit(s) before the outfall. Details of the proposed systems are located on sheet GR-14 of the Expansion Site plan set. All systems meet the minimum criteria as defined in Chapter 4 of the Manual and are certified by Washington State Department of Ecology (TAPE) the Maryland Department of the Environment. The systems provide 89% TSS removal and 40% TP removal, which exceed the performance requirements defined in section 3.3.2 of the Manual. Usage of the manufactured stormwater systems is documented in section 9 of the SWPPP.

#### *Infiltration Basins*

Two infiltration basins (Basin #1 and Basin #2) have been designed in accordance with the manual. Basin #1 and #2 treat stormwater runoff from drainage areas DR-13 and DR-14 respectively. Runoff from these areas sheet flow to an open roadside swale which outlets into the forebay of the pond. Both ponds have been designed to infiltrate the WQv as required by each catchment area. Because both ponds outlet directly to the Normans Kill, detention of large storm events is not required (see section III.C through III.E below). The basins do not have additional capacity for the Channel Protection Volume (CPv), Overbank Flood Control (Qp), or Extreme Flood Control (Qf). In large storm events, the basin will provide a “first flush” treatment with stabilized emergency spillways to direct flow to the Normans Kill. All stormwater within the basin will be infiltrated within 48 hours of a rain event.

#### *Dry Swale*

Two dry swales have been designed to treat the new impervious area within DR-15 and DR-17 respectively. Runoff from each area will sheet flow to a roadside swale with the end segment constructed as a dry swale. In large storm events, water not infiltrated into the swale will overflow to a stabilized overflow which drains to the surrounding area. Design of the dry swales is provided in the GI Worksheets (Appendix C).

Sizing of the above practices were designed in accordance with Chapter 4 of the Manual. The WQv provided for each drainage area is summarized in Table III below:

**Table IV – Practices Providing Water Quality Volume**

Drainage Area	Stormwater Practice	WQv Provided (cf)
DR-1	Filter Type 2	42,218
DR-2	Filter Type 2	21,971
DR-3	Filter Type 2	43,938
DR-4	Filter Type 1	35,666
DR-5	Filter Type 2	20,342
DR-6	Filter Type 2	48,059
DR-7	Filter Type 1	34,826
DR-8	Stormwater Pond #1	8,437
DR-9	Stormwater Pond #2	13,361
DR-15	Dry Swale	129
DR-17	Dry Swale	484
<b>Total WQv</b>		<b>269,431</b>

### C. Channel Protection Volume (CPv)

Stream Channel Protection Volume Requirements (CPv) are designed to protect stream channels from erosion. The Manual was used to determine the water quantity requirements of CPv; specifically, providing 24-hour extended detention for the 1-year storm event or discharging directly to tidal waters.

According to Section 4.4 of the Manual, the Stream Channel Protection Volume (CPV) requirement does not apply when the site discharges to a tidal waterbody.

The CPv requirement does not apply in certain conditions, including the following:

- Reduction of the entire CPv volume is achieved at a site through green infrastructure or infiltration systems.
- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams.

The Hudson River and Normans Kill are classified as tidal waters at the project site. Therefore, 24-hour extended detention of the 1-year storm event is not required for all drainage areas that outlet directly to the Hudson River or Normans Kill.

Drainage areas DR-8 and DR-9 convey large storm events to Wetland # 1. A pre-and post-development analysis of the inflow to Wetland #1 was performed. The existing 40" outlet pipe from the existing wetland 1 was also analyzed to confirm that adequate capacity was present for the proposed drainage conditions prior to being discharged to the Normans Kill. See Section IV.

The change in hydrology for the 1-year storm event from existing to proposed is shown in the HydroCAD Report printouts provided in Appendix B.

#### **D. Overbank Flood Control (Qp)**

The primary purpose of the overbank flood control sizing criterion is to prevent an increase in the frequency and magnitude of out-of-bank flooding generated by urban development. The Manual was used to determine the water quantity requirements of Qp; specifically, providing sufficient retention volume to discharge all runoff from the proposed 10-year storm event at a rate equal to or less than the existing peak 10-year runoff rate or discharging directly to tidal waters.

According to Section 4.5 of the Manual, the Overbank Flood Control Criteria (Qp) requirement does not apply when the site discharges to a tidal waterbody.

The overbank flood control requirement (Qp) does not apply in certain conditions, including:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams. Refer to Section 4.3 of the Manual for instructions.

The Hudson River and Normans Kill are classified as tidal waters at the project site. Therefore, retention the 10-year storm event is not required for all drainage areas that outlet directly to the Hudson River or Normans Kill.

Drainage areas DR-8 and DR-9 convey large storm events to Wetland # 1. A pre-and post-development analysis of the inflow to Wetland #1 was performed. The existing 40" outlet pipe from the existing wetland 1 was also analyzed to confirm that adequate capacity was present for the proposed drainage conditions prior to being discharged to the Normans Kill. See Section IV.

The change in hydrology for the 10-year storm event from existing to proposed is shown in the HydroCAD Report printouts provided in Appendix B.

#### **E. Extreme Flood Control (Qf)**

The intent of the extreme flood criteria is to prevent the increased risk of flood damage from large storm events, maintain the boundaries of the predevelopment 100-year floodplain, and protect the physical integrity of stormwater management practices. The Manual was used to determine the water quantity requirements of Qf; specifically, providing sufficient retention volume to discharge all runoff from the proposed 100-year storm event at a rate equal to or less than the existing peak 100-year runoff rate or discharging directly to tidal waters.

According to Section 4.6 of the Manual, the Extreme Flood Control Criteria (Qf) requirement does not apply when the site discharges to a tidal waterbody.

The 100-year storm control requirement can be waived if:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams. Refer to Section 4.3 of the Manual for instructions.

The Hudson River and Normans Kill are classified as tidal waters at the project site. Therefore, retention the 100-year storm event is not required for all drainage areas that outlet directly to the Hudson River or Normans Kill.

Drainage areas DR-8 and DR-9 convey large storm events to Wetland # 1. A pre-and post-development analysis of the inflow to Wetland #1 was performed. The existing 40" outlet pipe from the existing wetland 1 was also analyzed to confirm that adequate capacity was present for the proposed drainage conditions prior to being discharged to the Normans Kill. See Section IV.

The change in hydrology for the 10-year storm event from existing to proposed is shown in the HydroCAD Report printouts provided in Appendix B.

#### IV. Summary of Findings

##### A. Summary of Results

Table V lists the required and provided RRv and WQv for the project. As shown, the project is capable of meeting the total water quality volume required by the Manual.

**Table V – Stormwater Management Practice Summary**

Drainage Area	RRv (cf)	WQv Provided (cf)	Total (RRv + WQv)
DR-1	-	42,218	42,218
DR-2	-	21,971	21,971
DR-3	-	43,938	43,938
DR-4	-	35,666	35,666
DR-5	-	20,342	20,342
DR-6	-	48,059	48,059
DR-7	-	34,826	34,826
DR-8	-	8,437	8,437
DR-9	-	13,361	13,361
DR-13	1,995	-	1,995
DR-14	2,245	-	2,245
DR-15	87	129	216
DR-17	127	484	611
<b>Totals</b>	<b>4,454</b>	269,431	<b>273,885</b>
Required	57,313	-	273,007

Table VI below depicts the peak discharge in the existing and proposed conditions for the 1-year, 10-year and 100-year design storms. The peak discharge for all storm events exceeds the existing value; however, as described in Sections III, C through E above, this requirement does not apply to analysis points 1 (Hudson River) and 2 (Normans Kill).

**Table VI – Peak Discharge Storm Analysis**

Analysis Point	Storm Event	Existing (cfs)	Proposed (cfs)
1	1-year	3.25	71.54
	10-year	14.97	125.39
	100-year	43.43	218.14
2	1-year	7.17	93.18
	10-year	20.65	166.49
	100-year	48.06	293.07
3	1-year	0.60	1.20
	10-year	1.84	2.62
	100-year	4.39	5.25

In the post-development condition, Analysis Point #1 has a total drainage area of 0.12 square miles (75.28 acres). This point drains to the Normans Kill with a drainage area of 162 square miles (103,680 acres). The project makes up approximately 0.07% of the total drainage area of the Normans Kill. With an overall project time of concentration of around 10 minutes, the proposed project will have a negligible impact on the total Normans Kill hydrology as the site-produced runoff will be conveyed prior to the Normans Kill peak and not have an impact on the overall flood conditions of the Normans Kill.

In the post-development condition, Analysis Point #2 has a total drainage area of 0.04 square miles (23.6 acres). This point drains to the Hudson River with a drainage area of 8,090 square miles (5,177,600 acres). The project makes up approximately 0.0005% of the total drainage area of the Hudson. With an overall project time of concentration of around 10 minutes, the proposed project will have a negligible impact on the total Hudson River hydrology, as the site-produced runoff will be conveyed prior to the Hudson River peak and not have an impact on the overall flood conditions of the Hudson River.

In the post-development condition, Analysis Point #3 discharge rates are higher than the pre-development condition. However, analysis point #3 drains to the surrounding area which stores runoff to be gradually infiltrated. Runoff from this analysis point does not flow to a stream or wetland.

In large storm events greater than 10-year, ponds #1 and #2 will overflow to an emergency spillway that outlets to the area surrounding Wetland #1. The inflow to Wetland #1 was analyzed in the pre- and post- development condition to ensure compliance with C<sub>pv</sub>, Q<sub>p</sub>, and Q<sub>f</sub> requirements. The existing 40" outlet pipe from Wetland #1 was also analyzed for capacity. The analysis is summarized in tables VII and VIII below.

**Table VII – Wetland Inflow Analysis**

Storm Event	Existing (cfs)	Proposed (cfs)
1-year	27.32	4.78
10-year	73.24	12.46
100-year	163.6	31.39

**Table VIII – Outlet Pipe Capacity Comparison**

Storm Event	Existing (cfs)	Proposed (cfs)	Capacity (cfs)
1-year	3.19	1.61	70.83
10-year	14.53	5.16	70.83
100-year	41.52	18.25	70.83

## B. Deviation from NYS Stormwater Management Design Manual

The proposed stormwater management design deviates from The Manual in two areas. The first being the use of manufactured stormwater filtering systems for new development, and the second being the inability to meet the minimum RRv.

The need for alternative stormwater management practices is rooted in the extremely limited space available as well as the current site conditions. The proposed Offshore Wind Manufacturing Facility requires 85 acres of usable manufacturing and storage space along the Hudson River. It also requires close proximity to an existing port. Such requirements narrow the available project locations to a select few plots of unoccupied land in the entire state and this site was selected through a solicitation process by the state for off-shore wind development. This site was chosen given it is located adjacent to the existing Port of Albany and is directly on the Hudson River. However, the usable portion of the site adjacent to the Hudson River, is only 66-acre area. Therefore, the entirety of the site is needed for the OSW manufacturing process, with an ancillary receiving site located at 700 Smith Boulevard. In typical space restrictive scenarios, infiltration is a commonly used practice. However, the Expansion Site is a historic fly ash disposal area, containing highly contaminated soil. According to the site specific SMP, developed in coordination with the NYSDEC, infiltration is not recommended.

To adequately satisfy the WQv requirements of the Manual, manufactured systems are needed. The Contech Jellyfish units designed meet both the performance and sizing requirements of Chapter 4 of the Manual. The units are also certified by Washington State Department of Ecology (TAPE) and the Maryland Department of the Environment, adequate sources accepted by the NYSDEC. Specifications and details for the proposed units are provided in Appendix D.

The second deviation is a result of the need for manufactured stormwater management units. These units handle the majority of the WQv for the site, and do not provide RRv. Additionally, as stated above, infiltration is not an acceptable practice for the Expansion site, eliminating a majority of RRv techniques. See Section 8.2 of the SWPPP for an evaluation of green

infrastructure practices. The Normanskill Street improvement and Offsite Improvement portions of this project are in areas of uncontaminated soil with high infiltration rates. Therefore, all treatment practices selected for these areas infiltrate into the ground and provide all treatment as RRv. While the minimum RRv requirement cannot be met given the site restrictions, 4,454 cf of runoff is reduced per the proposed plan.

### **C. Conclusion**

Based upon the analysis provided in this report, the proposed development can meet the sizing and performance requirements as defined in Chapter 4 of the Manual. During construction, Erosion and Sediment Control activities will be designed and enforced in accordance with the NYSDEC New York State Standards and Specifications for Erosion and Sediment Control. Stormwater management practices can provide the required WQv for the proposed conditions. The elements of the Manual and the SPDES Permit that relate to stormwater quantity controls, specifically CPv (1-year), Qp (10-year), and Qf (100-year), are not applicable for portions of the site that discharge directly to a tidal water. A downstream analysis was completed for the existing Wetland #1 and its outlet pipe to confirm adequate capacity prior to discharging into the tidal waters of the Normans Kill. All elements of the closed drainage system have been designed to be non-erosive during a 2-year storm event and capable of conveying a 10-year storm event. Analysis of all closed drainage pipe networks is included in Appendix C. After construction, a maintenance and operation report program and agreement will be made between the site operator and MS4 (Town of Bethlehem) to ensure all stormwater management practices are maintained over the life of the site's operations.

## **Appendix A**

### **Existing Conditions Drainage Map and HydroCAD Report**





**McFarland Johnson**  
 60 RAILROAD PLACE  
 SUITE 402  
 SARATOGA SPRINGS, NEW YORK 12866  
 P:518-580-9380 F:518-580-9383  
 SaratogaROM@mjinc.com

PROJECT MILESTONE  
**NFC**

NO.	DATE	DESCRIPTION

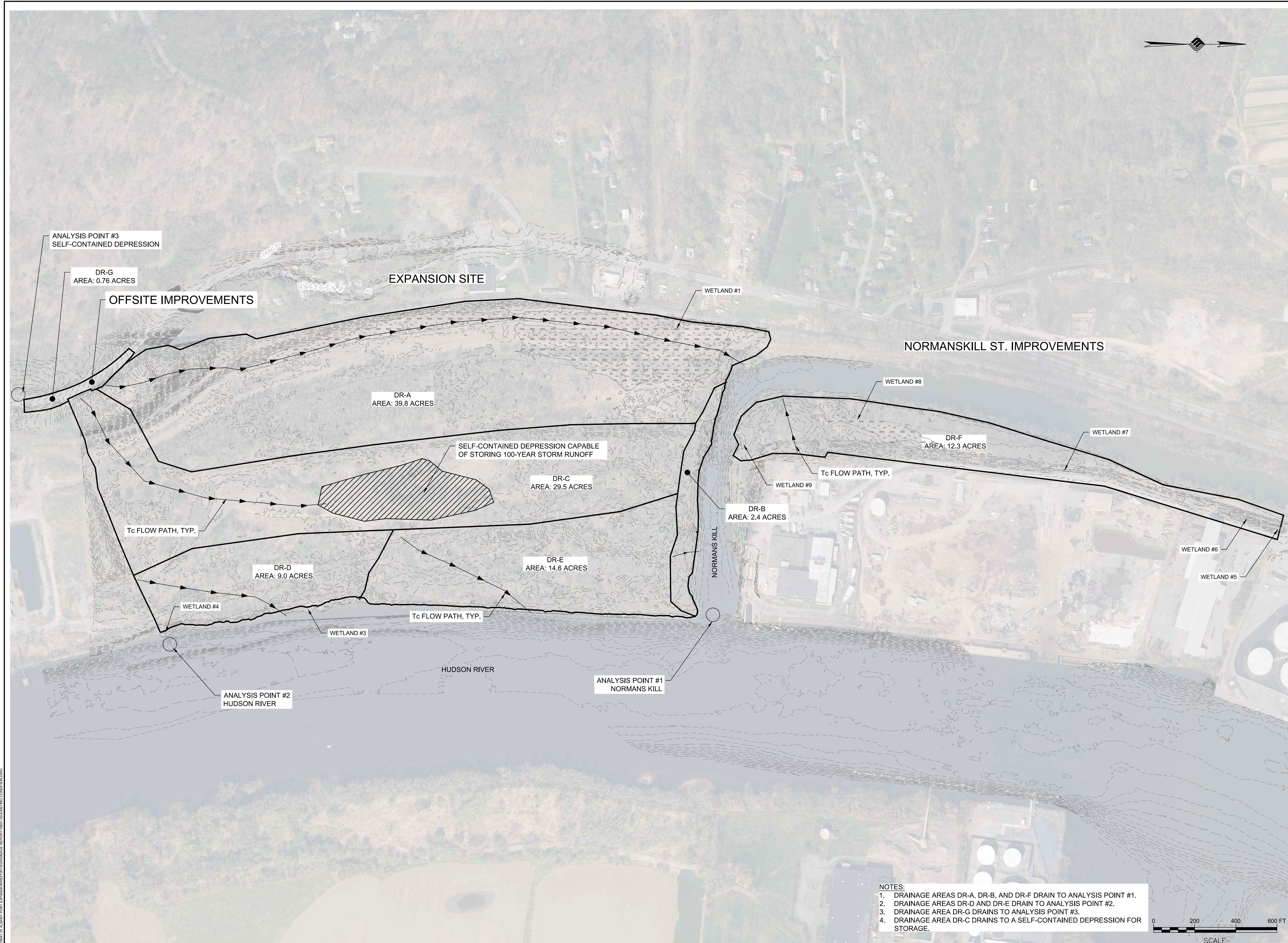
CLIENT: **ALBANY PORT DISTRICT COMMISSION**  
 ALBANY, NEW YORK  
 PROJECT: **PORT OF ALBANY SITE INFRASTRUCTURE IMPROVEMENTS**

DRAWN	NSO
DESIGNED	NSO
CHECKED	AJF
SCALE	1" = 200'
DATE	JANUARY 2022
PROJECT	18641.00

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE  
**PRE-DEVELOPMENT SITE DRAINAGE AREAS**

DRAWING NUMBER  
**DR-EX**  
 01 OF 01

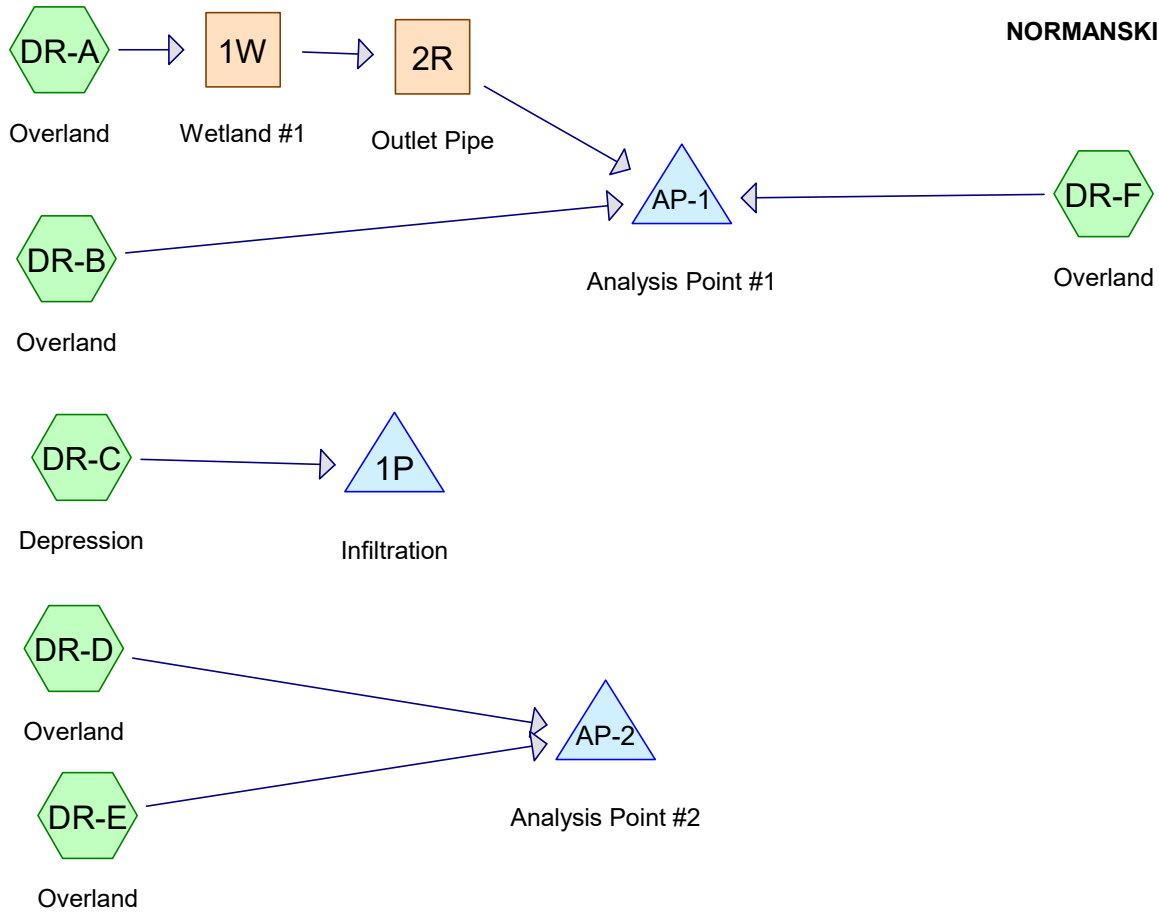


- NOTES:**
1. DRAINAGE AREAS DR-A, DR-B, AND DR-F DRAIN TO ANALYSIS POINT #1.
  2. DRAINAGE AREAS DR-D AND DR-E DRAIN TO ANALYSIS POINT #2.
  3. DRAINAGE AREA DR-G DRAINS TO ANALYSIS POINT #3.
  4. DRAINAGE AREA DR-C DRAINS TO A SELF-CONTAINED DEPRESSION FOR STORAGE.

N:\18641.00\ALBANY PORT EXPANSION\REPORTS\DRAINAGE REPORT\18641.DWG

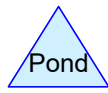
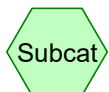
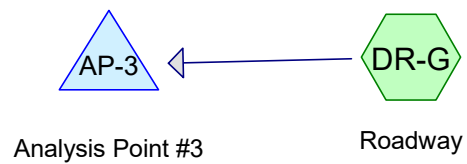


**EXPANSION SITE**



**NORMANSKILL ST.**

**OFFSITE IMPROVEMENTS**



## 18641.00-Existing Condition

Prepared by McFarland Johnson

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### Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	2.20	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.63	2
3	100-Year	Type II 24-hr		Default	24.00	1	6.11	2

## 18641.00-Existing Condition

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### Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.300	39	>75% Grass cover, Good, HSG A (DR-G)
3.970	77	Brush, Fair, HSG D (DR-C)
1.100	98	Existing Railroad (DR-A)
2.500	96	Gravel surface, HSG D (DR-C)
1.100	98	Pavement (DR-F)
0.460	98	Roadway (DR-G)
87.730	79	Woods, Fair, HSG D (DR-A, DR-B, DR-C, DR-D, DR-E)
11.200	43	Woods/grass comb., Fair, HSG A (DR-F)
<b>108.360</b>	<b>76</b>	<b>TOTAL AREA</b>

**18641.00-Existing Condition**

Prepared by McFarland Johnson

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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-A: Overland**

Runoff = 27.32 cfs @ 12.16 hrs, Volume= 2.040 af, Depth> 0.62"

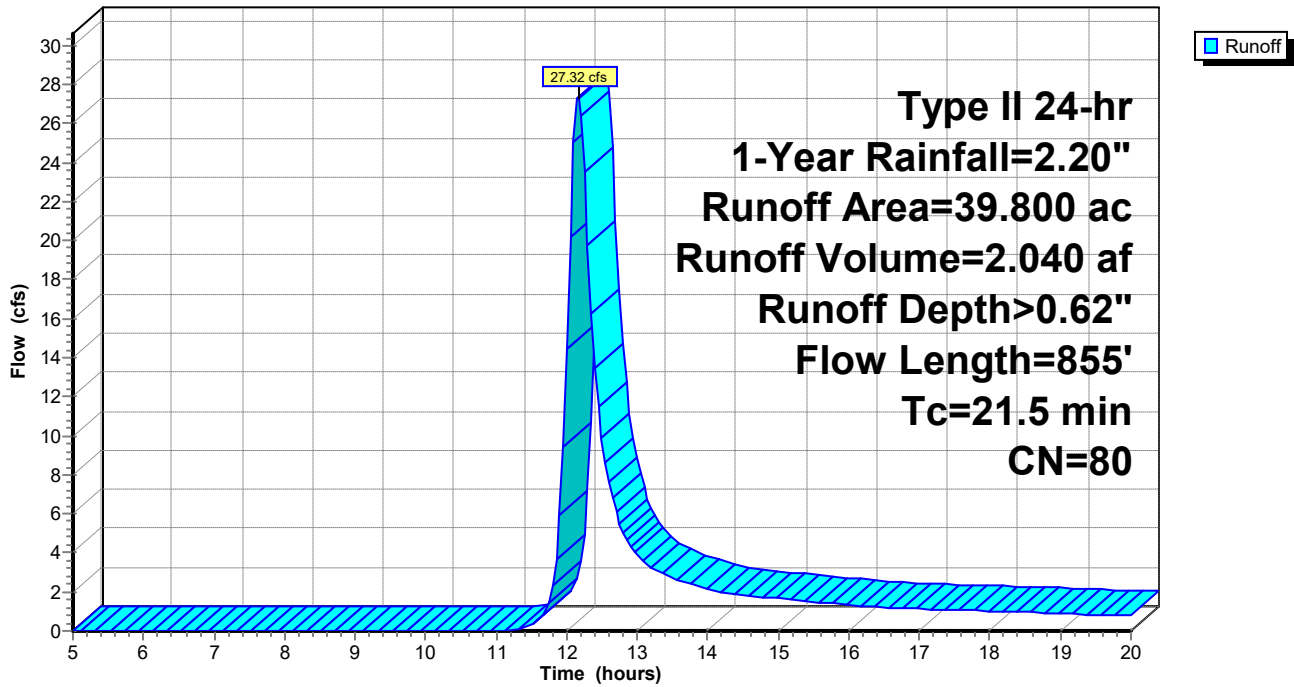
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
38.700	79	Woods, Fair, HSG D
* 1.100	98	Existing Railroad
39.800	80	Weighted Average
38.700		97.24% Pervious Area
1.100		2.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	150	0.1500	0.17		<b>Sheet Flow, Sheet Flow</b> Woods: Light underbrush n= 0.400 P2= 2.67"
4.8	575	0.1600	2.00		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
2.2	130	0.0400	1.00		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
21.5	855	Total			

**Subcatchment DR-A: Overland**

Hydrograph



**18641.00-Existing Condition**

Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-B: Overland**

Runoff = 2.64 cfs @ 11.98 hrs, Volume= 0.115 af, Depth> 0.58"

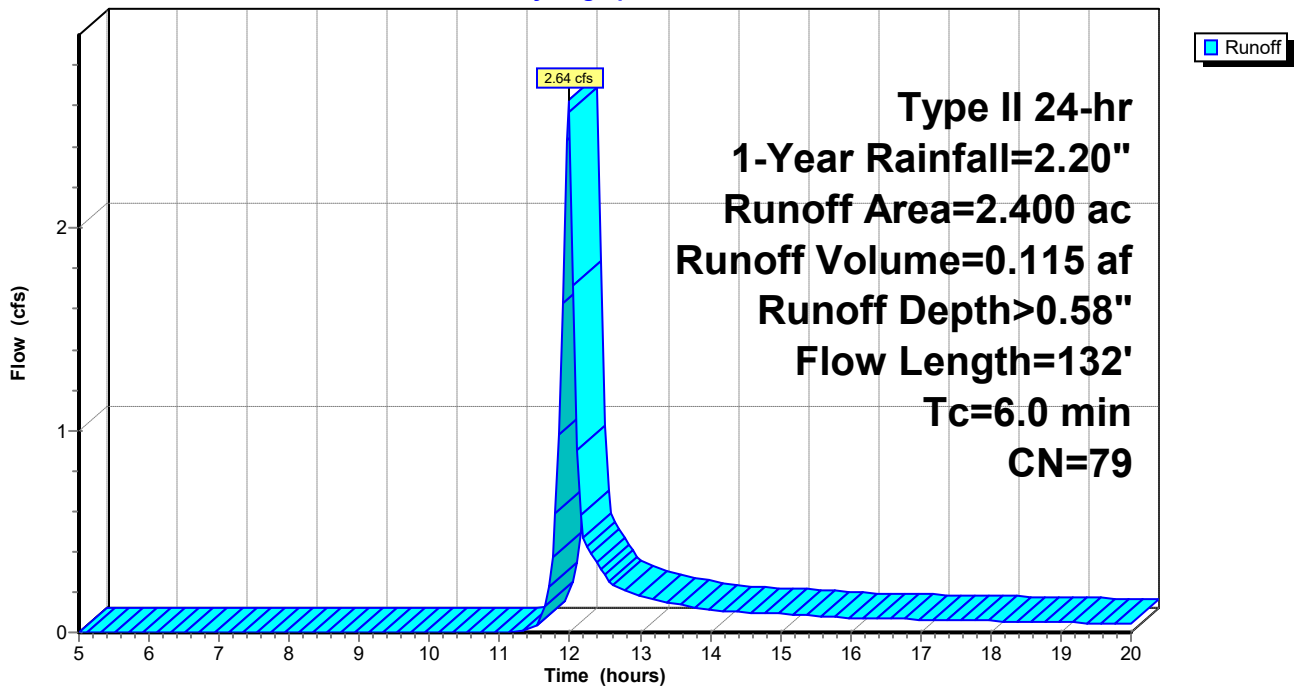
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
2.400	79	Woods, Fair, HSG D
2.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	132		0.37		Direct Entry, Sheet Flow

**Subcatchment DR-B: Overland**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-C: Depression**

Runoff = 34.89 cfs @ 11.98 hrs, Volume= 1.523 af, Depth> 0.62"

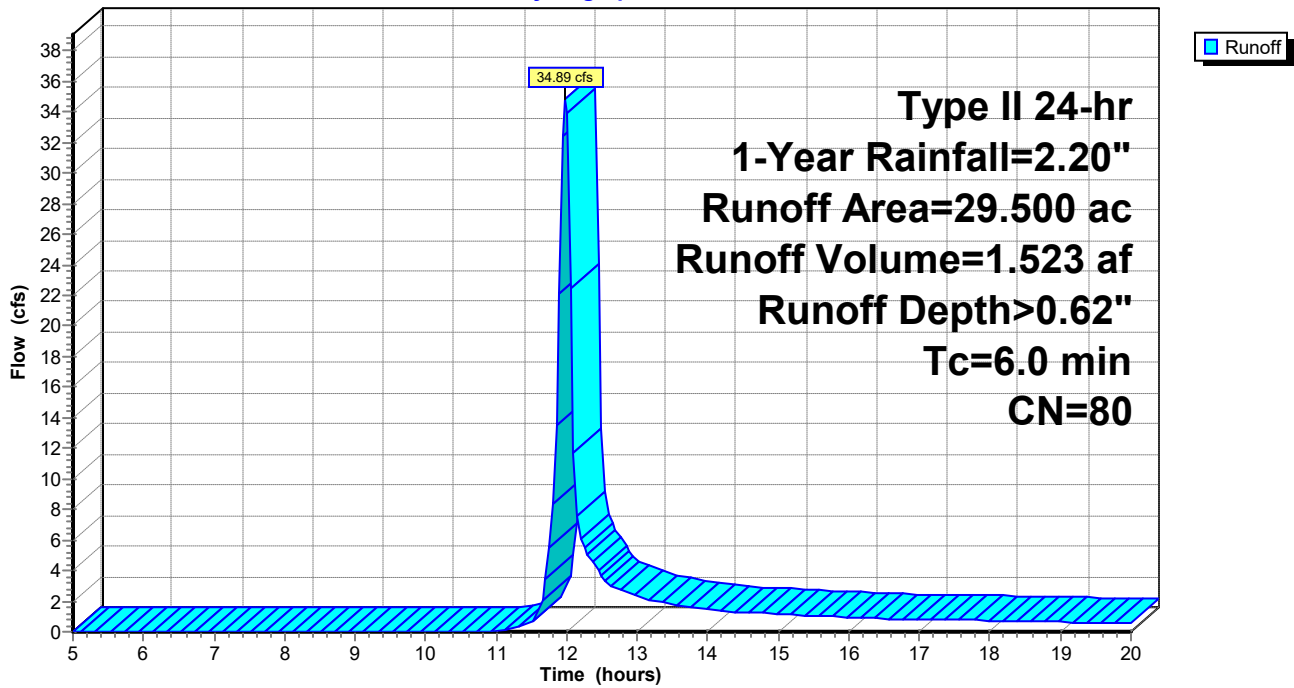
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
3.970	77	Brush, Fair, HSG D
2.500	96	Gravel surface, HSG D
23.030	79	Woods, Fair, HSG D
29.500	80	Weighted Average
29.500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-C: Depression**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-D: Overland**

Runoff = 2.18 cfs @ 12.96 hrs, Volume= 0.416 af, Depth> 0.55"

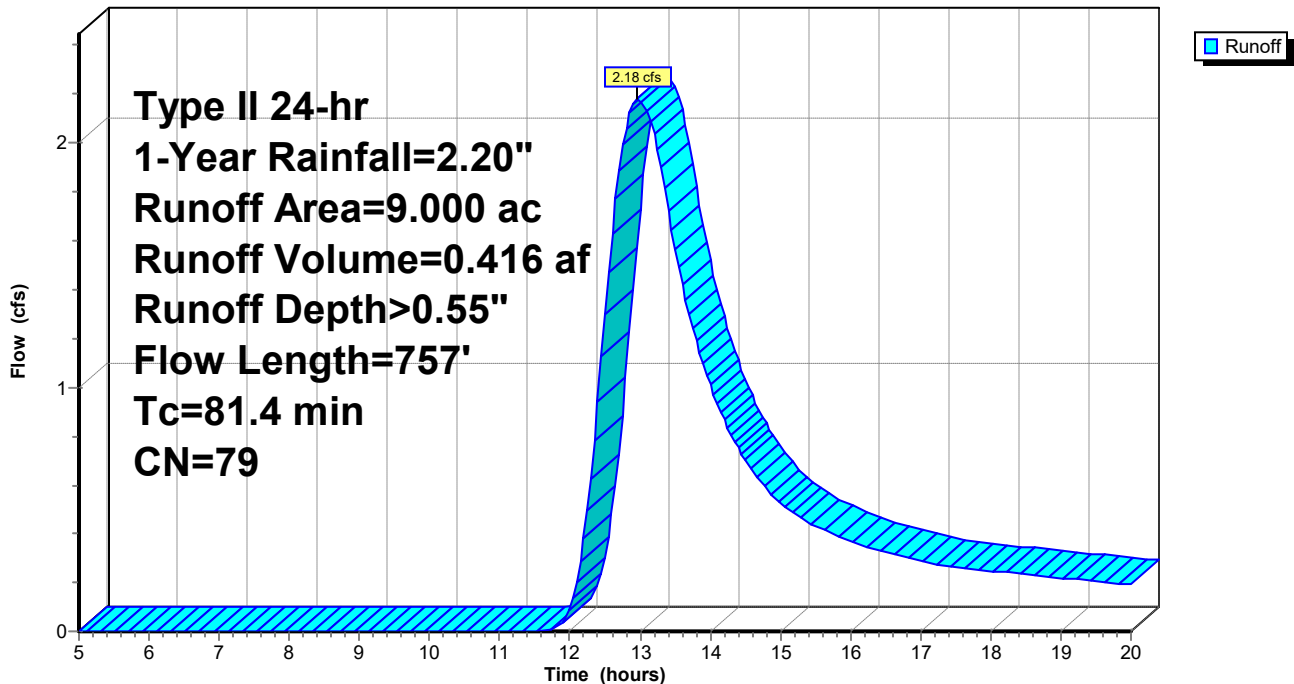
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
9.000	79	Woods, Fair, HSG D
9.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.6	150	0.0050	0.04		<b>Sheet Flow, Sheet Flow</b> Woods: Light underbrush n= 0.400 P2= 2.67"
23.9	507	0.0050	0.35		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
0.9	100	0.1300	1.80		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
81.4	757	Total			

**Subcatchment DR-D: Overland**

Hydrograph





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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-E: Overland**

Runoff = 6.22 cfs @ 12.38 hrs, Volume= 0.691 af, Depth> 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

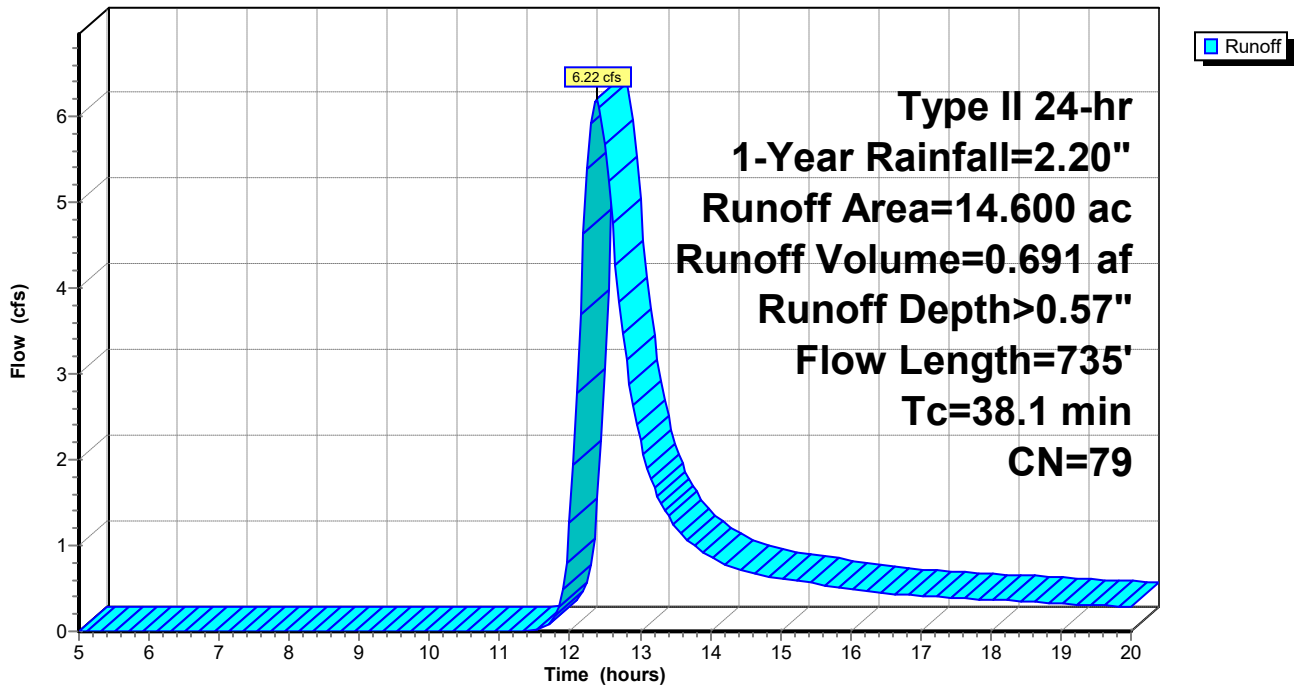
Area (ac)	CN	Description
14.600	79	Woods, Fair, HSG D
14.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	150	0.0300	0.09		<b>Sheet Flow, Sheet Flow</b> Woods: Light underbrush n= 0.400 P2= 2.67"
9.8	510	0.0300	0.87		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
0.7	75	0.1200	1.73		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
38.1	735	Total			

**Subcatchment DR-E: Overland**

Hydrograph



**18641.00-Existing Condition**

Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-F: Overland**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

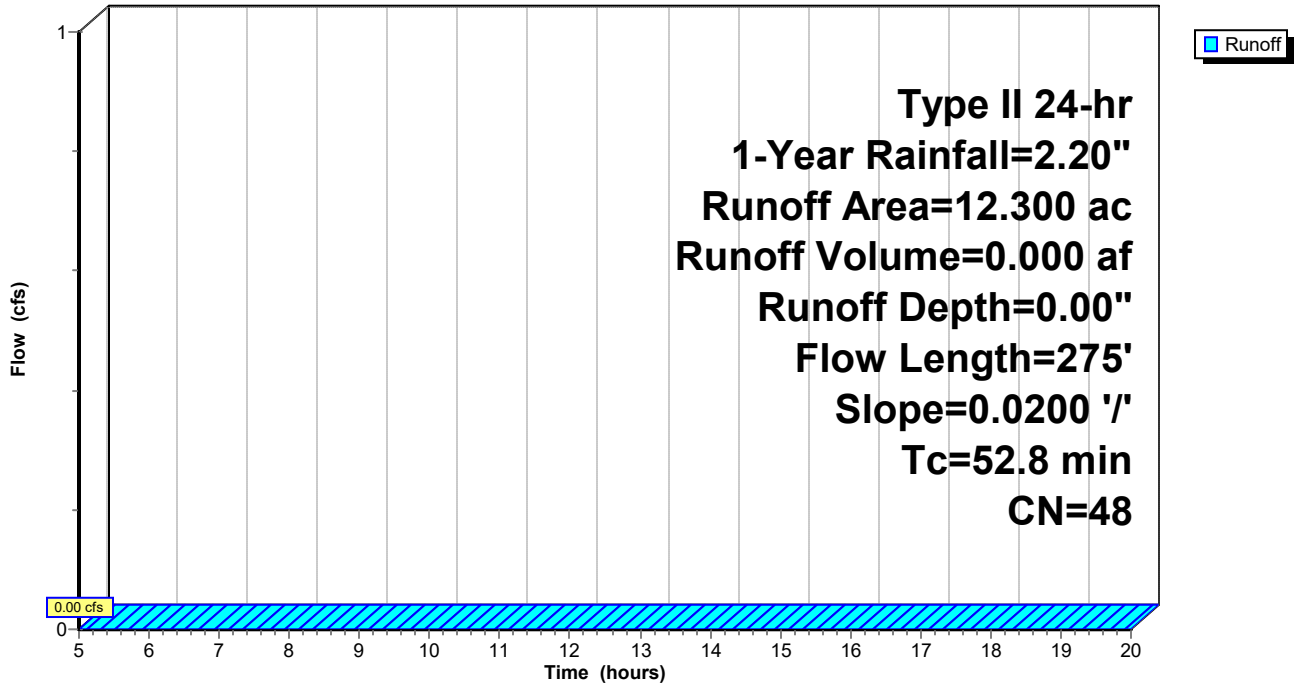
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 1.100	98	Pavement
11.200	43	Woods/grass comb., Fair, HSG A
12.300	48	Weighted Average
11.200		91.06% Pervious Area
1.100		8.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
52.8	275	0.0200	0.09		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.67"

**Subcatchment DR-F: Overland**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-G: Roadway**

Runoff = 0.60 cfs @ 11.99 hrs, Volume= 0.027 af, Depth> 0.43"

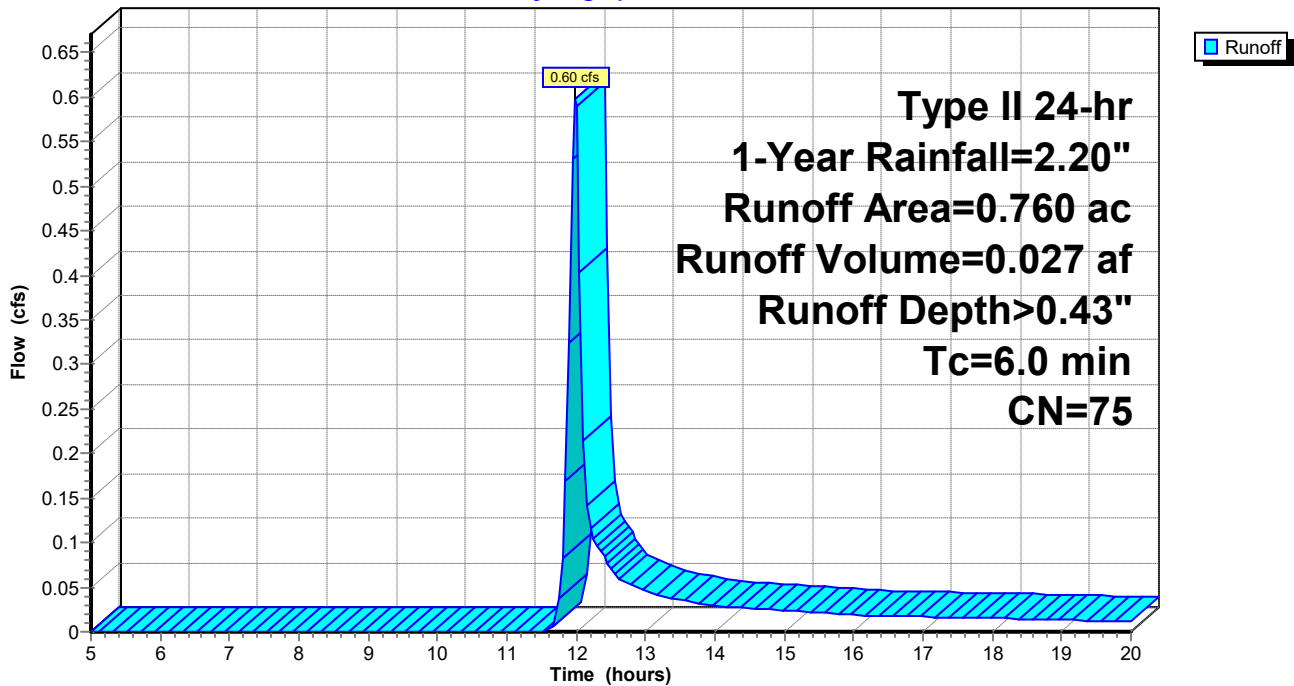
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 0.460	98	Roadway
0.300	39	>75% Grass cover, Good, HSG A
0.760	75	Weighted Average
0.300		39.47% Pervious Area
0.460		60.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-G: Roadway**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Reach 1W: Wetland #1**

Inflow Area = 39.800 ac, 2.76% Impervious, Inflow Depth > 0.62" for 1-Year event  
 Inflow = 27.32 cfs @ 12.16 hrs, Volume= 2.040 af  
 Outflow = 3.19 cfs @ 17.12 hrs, Volume= 0.898 af, Atten= 88%, Lag= 297.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.07 fps, Min. Travel Time= 232.8 min  
 Avg. Velocity = 0.05 fps, Avg. Travel Time= 304.0 min

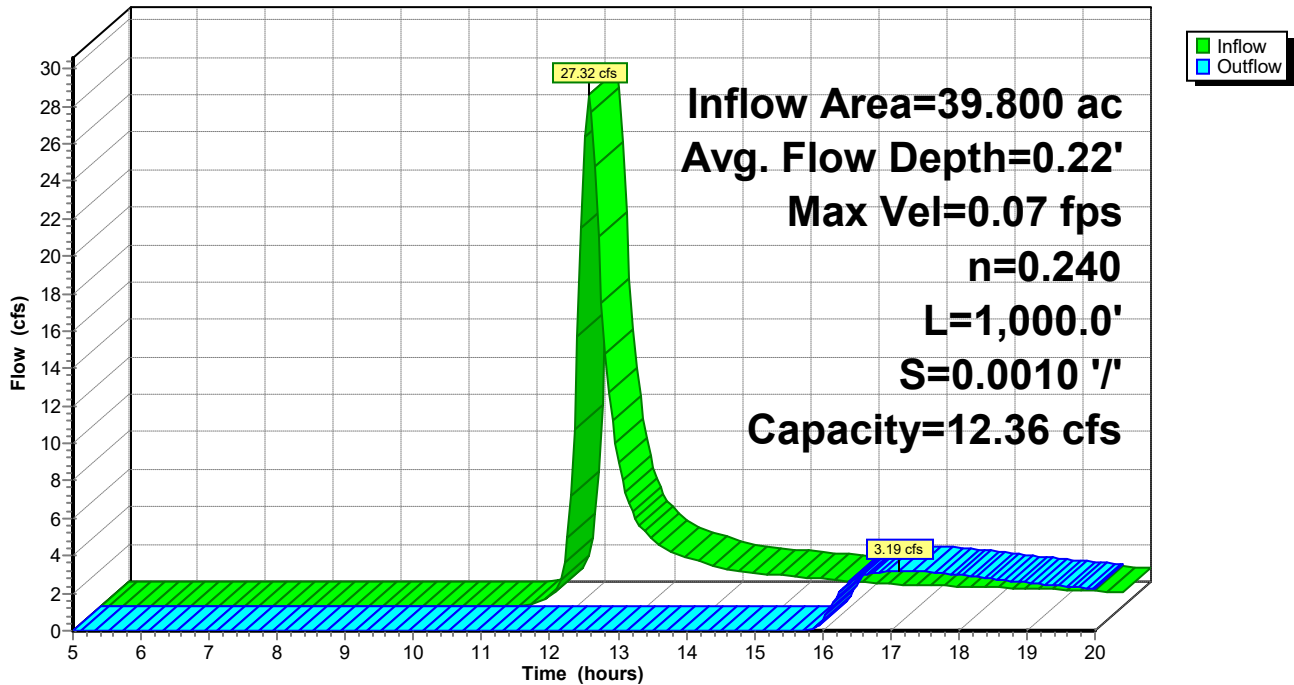
Peak Storage= 44,519 cf @ 13.24 hrs  
 Average Depth at Peak Storage= 0.22' , Surface Width= 201.33'  
 Bank-Full Depth= 0.50' Flow Area= 100.8 sf, Capacity= 12.36 cfs

200.00' x 0.50' deep channel, n= 0.240 Sheet flow over Dense Grass  
 Side Slope Z-value= 3.0 '/' Top Width= 203.00'  
 Length= 1,000.0' Slope= 0.0010 '/'  
 Inlet Invert= 6.00', Outlet Invert= 5.00'



**Reach 1W: Wetland #1**

Hydrograph



# 18641.00-Existing Condition

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Type II 24-hr 1-Year Rainfall=2.20"

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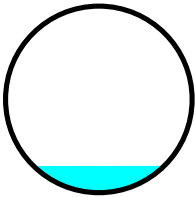
## Summary for Reach 2R: Outlet Pipe

Inflow Area = 39.800 ac, 2.76% Impervious, Inflow Depth > 0.27" for 1-Year event  
Inflow = 3.19 cfs @ 17.12 hrs, Volume= 0.898 af  
Outflow = 3.19 cfs @ 17.13 hrs, Volume= 0.896 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Max. Velocity= 4.10 fps, Min. Travel Time= 0.3 min  
Avg. Velocity = 3.35 fps, Avg. Travel Time= 0.3 min

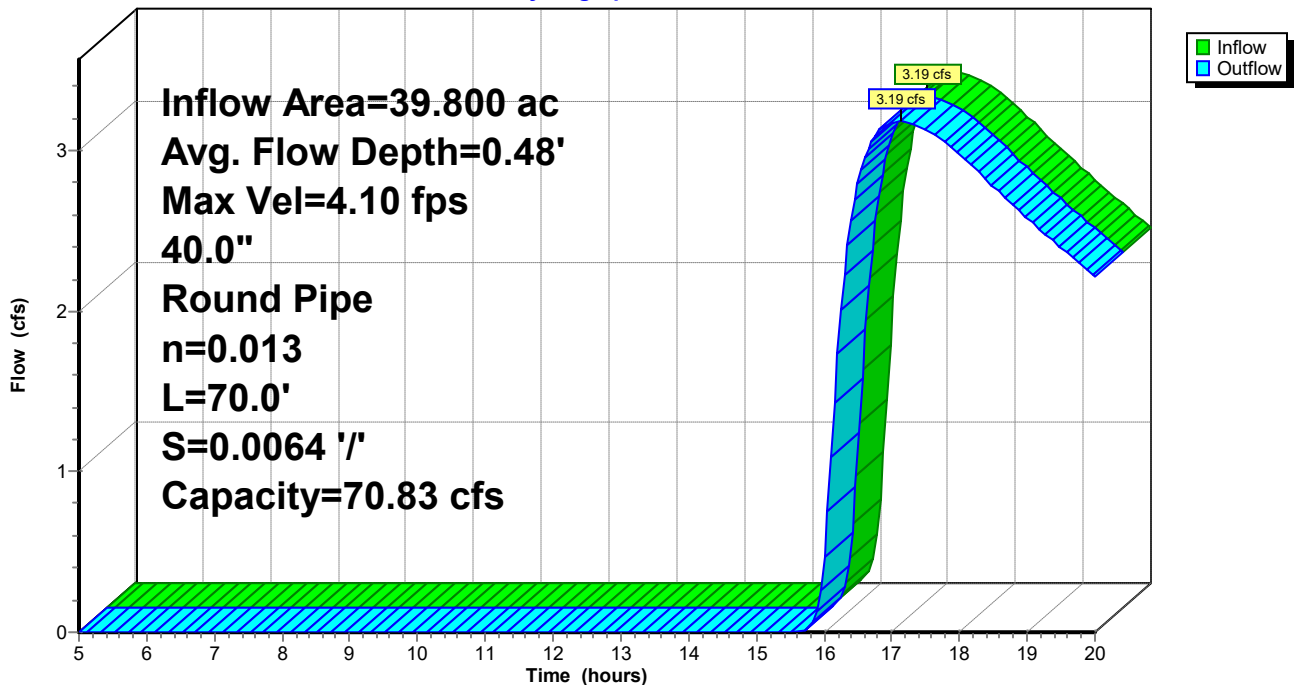
Peak Storage= 54 cf @ 17.12 hrs  
Average Depth at Peak Storage= 0.48' , Surface Width= 2.34'  
Bank-Full Depth= 3.33' Flow Area= 8.7 sf, Capacity= 70.83 cfs

40.0" Round Pipe  
n= 0.013 Corrugated PE, smooth interior  
Length= 70.0' Slope= 0.0064 '/'  
Inlet Invert= 4.25', Outlet Invert= 3.80'



## Reach 2R: Outlet Pipe

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 1-Year Rainfall=2.20"

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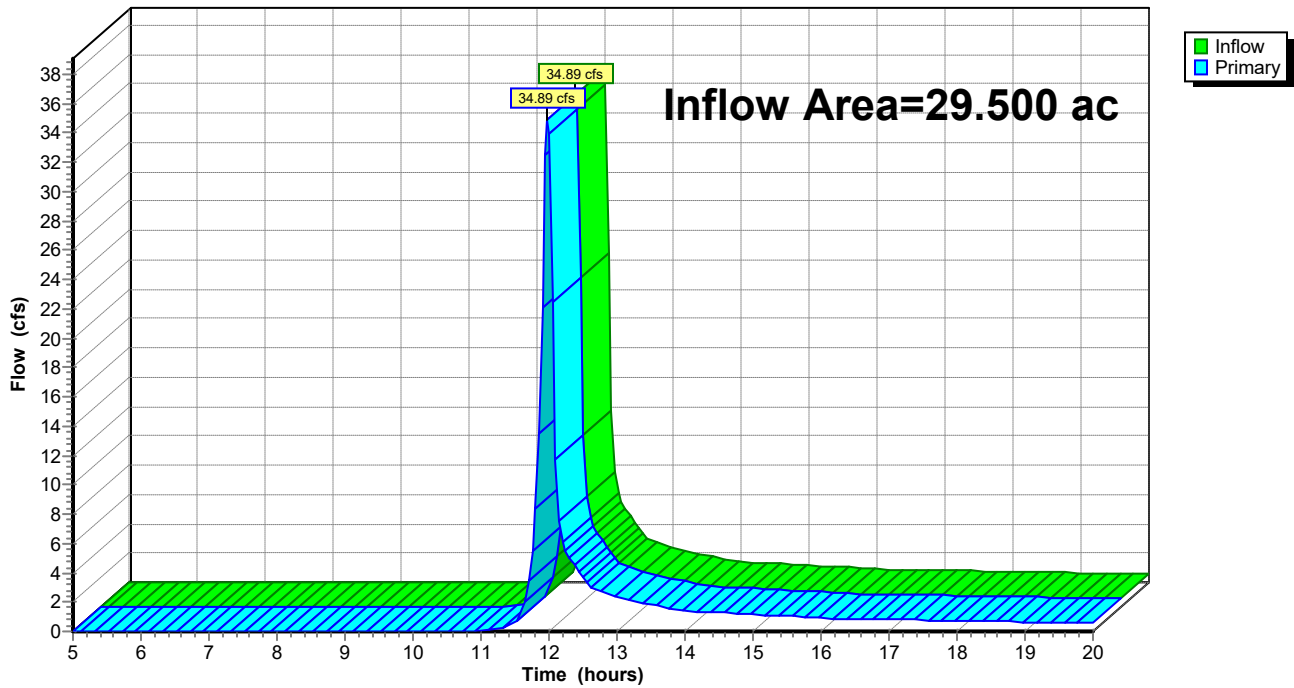
**Summary for Pond 1P: Infiltration**

Inflow Area = 29.500 ac, 0.00% Impervious, Inflow Depth > 0.62" for 1-Year event  
Inflow = 34.89 cfs @ 11.98 hrs, Volume= 1.523 af  
Primary = 34.89 cfs @ 11.98 hrs, Volume= 1.523 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Pond 1P: Infiltration**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 1-Year Rainfall=2.20"

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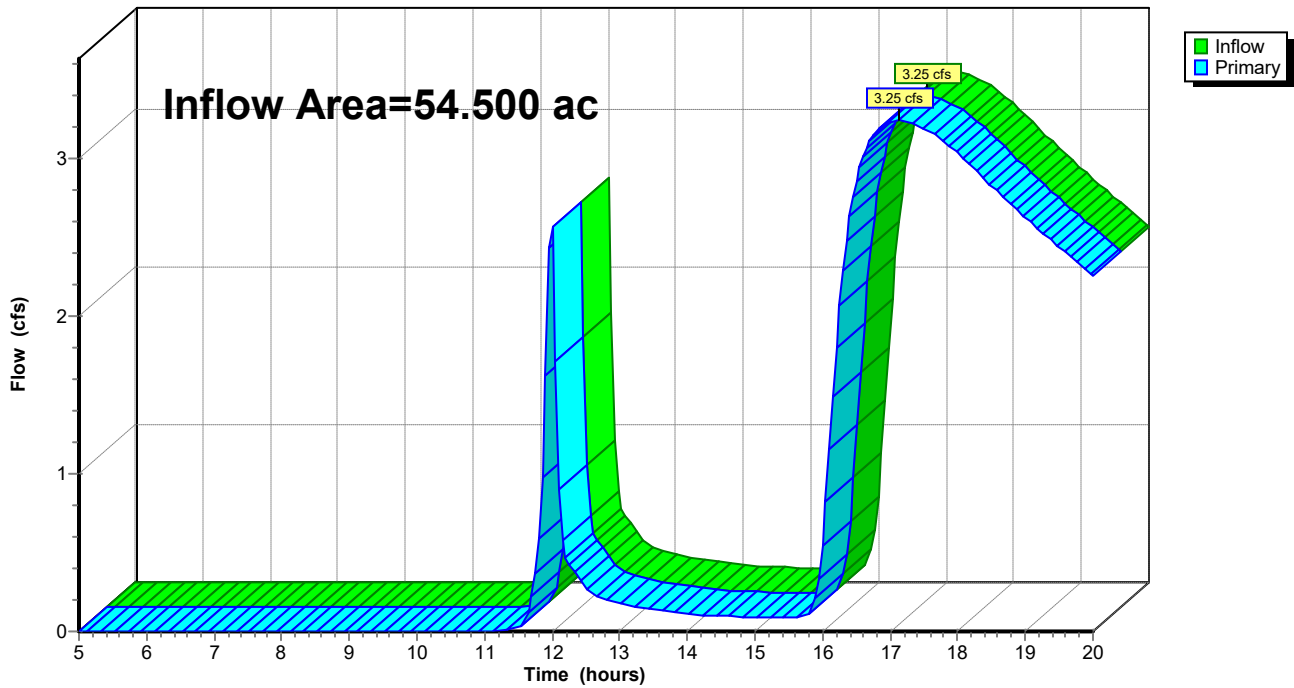
**Summary for Pond AP-1: Analysis Point #1**

Inflow Area = 54.500 ac, 4.04% Impervious, Inflow Depth > 0.22" for 1-Year event  
Inflow = 3.25 cfs @ 17.12 hrs, Volume= 1.012 af  
Primary = 3.25 cfs @ 17.12 hrs, Volume= 1.012 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Pond AP-1: Analysis Point #1**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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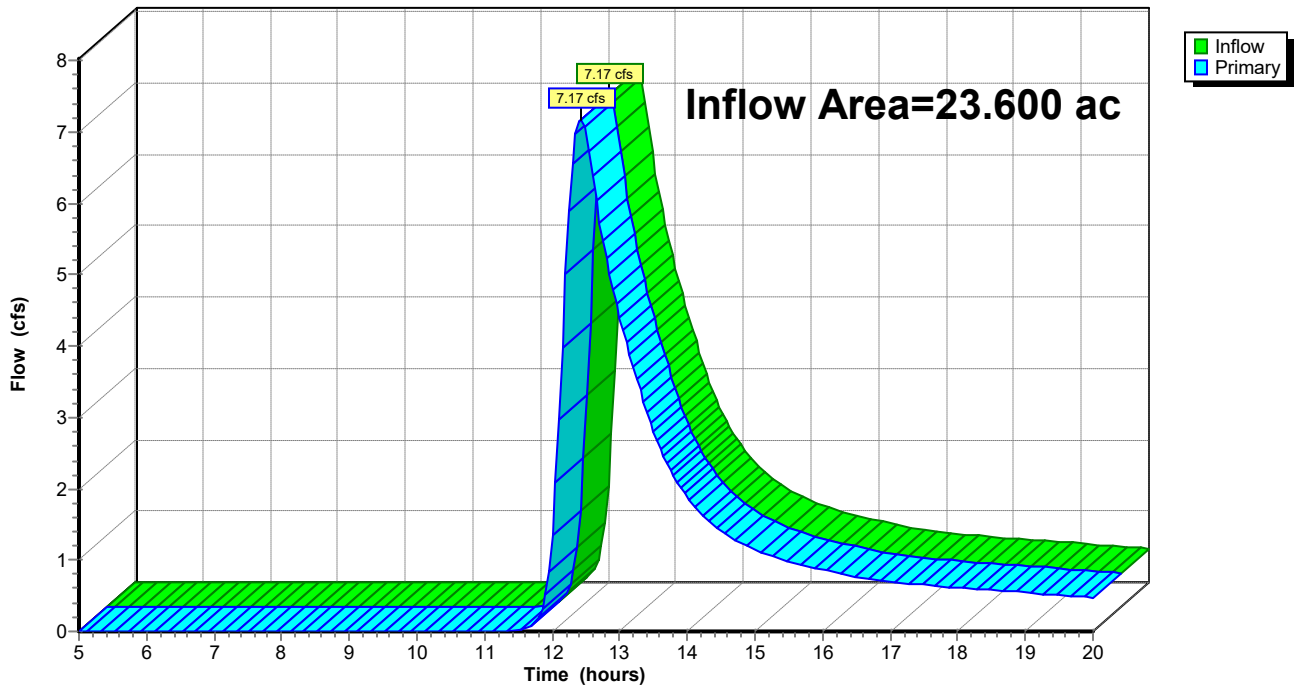
**Summary for Pond AP-2: Analysis Point #2**

Inflow Area = 23.600 ac, 0.00% Impervious, Inflow Depth > 0.56" for 1-Year event  
Inflow = 7.17 cfs @ 12.42 hrs, Volume= 1.107 af  
Primary = 7.17 cfs @ 12.42 hrs, Volume= 1.107 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Pond AP-2: Analysis Point #2**

Hydrograph





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Type II 24-hr 1-Year Rainfall=2.20"

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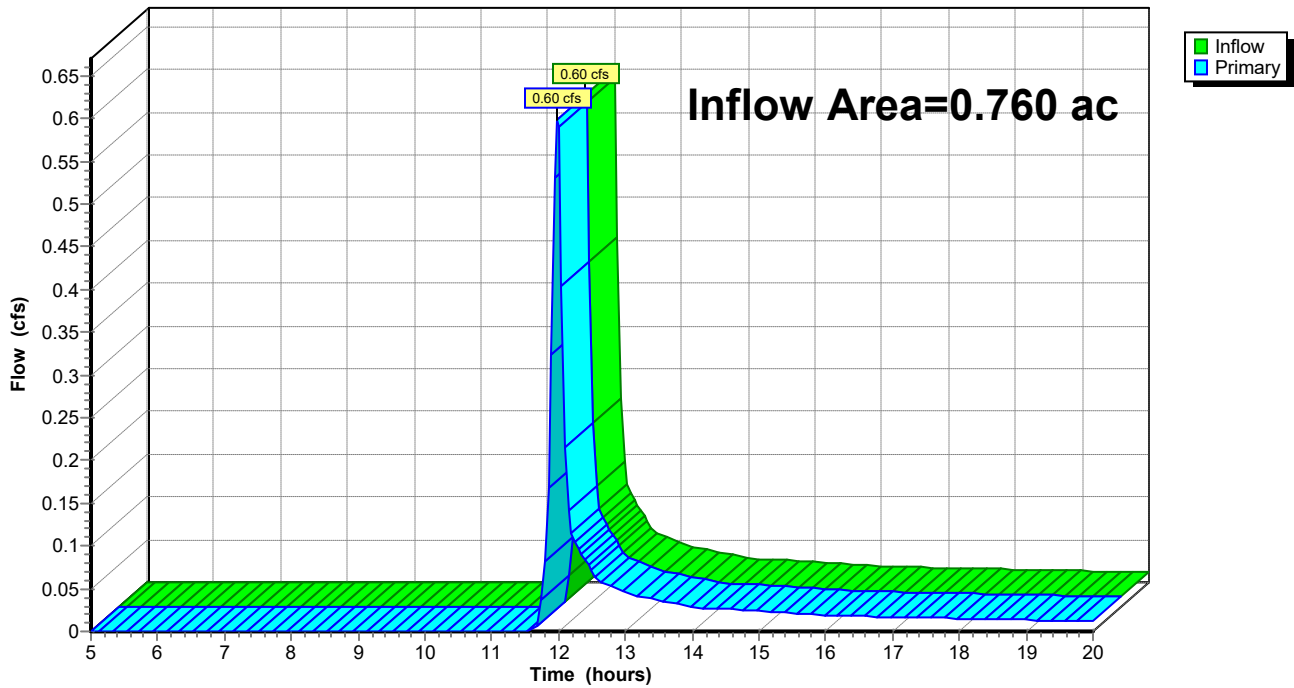
**Summary for Pond AP-3: Analysis Point #3**

Inflow Area = 0.760 ac, 60.53% Impervious, Inflow Depth > 0.43" for 1-Year event  
Inflow = 0.60 cfs @ 11.99 hrs, Volume= 0.027 af  
Primary = 0.60 cfs @ 11.99 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Pond AP-3: Analysis Point #3**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-A: Overland**

Runoff = 73.24 cfs @ 12.15 hrs, Volume= 5.272 af, Depth> 1.59"

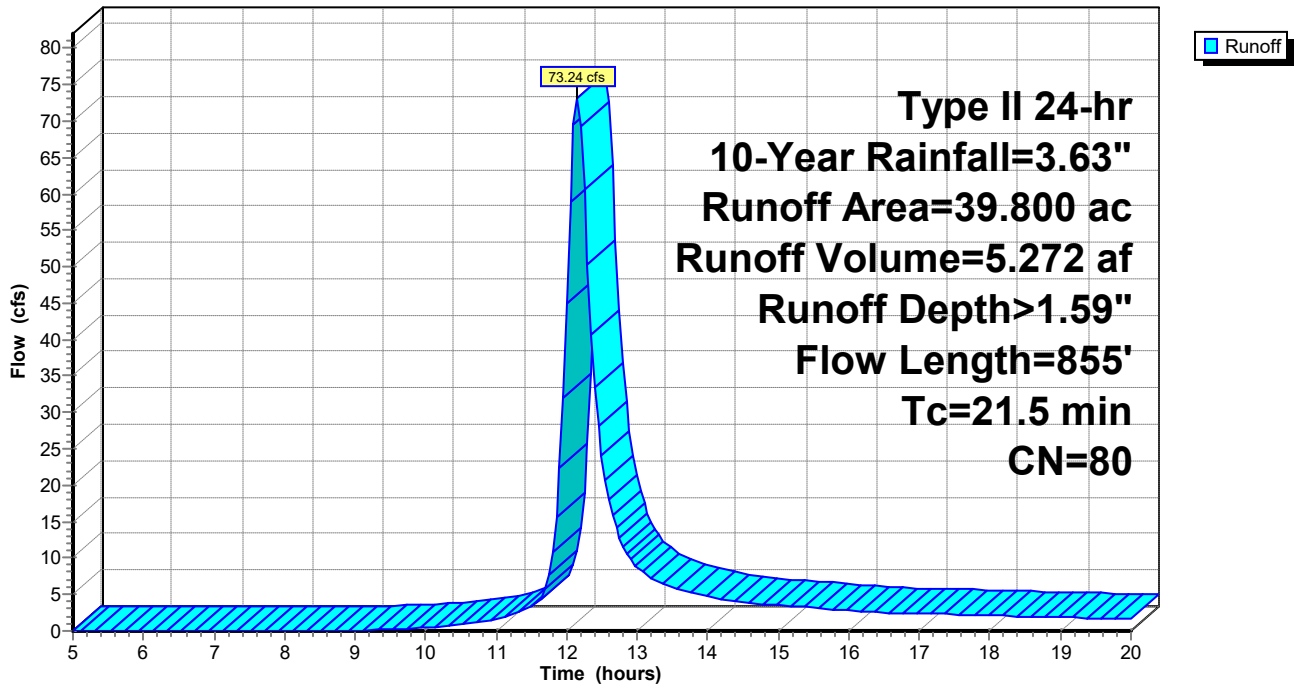
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
38.700	79	Woods, Fair, HSG D
* 1.100	98	Existing Railroad
39.800	80	Weighted Average
38.700		97.24% Pervious Area
1.100		2.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	150	0.1500	0.17		<b>Sheet Flow, Sheet Flow</b> Woods: Light underbrush n= 0.400 P2= 2.67"
4.8	575	0.1600	2.00		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
2.2	130	0.0400	1.00		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
21.5	855	Total			

**Subcatchment DR-A: Overland**

Hydrograph



**18641.00-Existing Condition**

Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-B: Overland**

Runoff = 6.90 cfs @ 11.97 hrs, Volume= 0.306 af, Depth> 1.53"

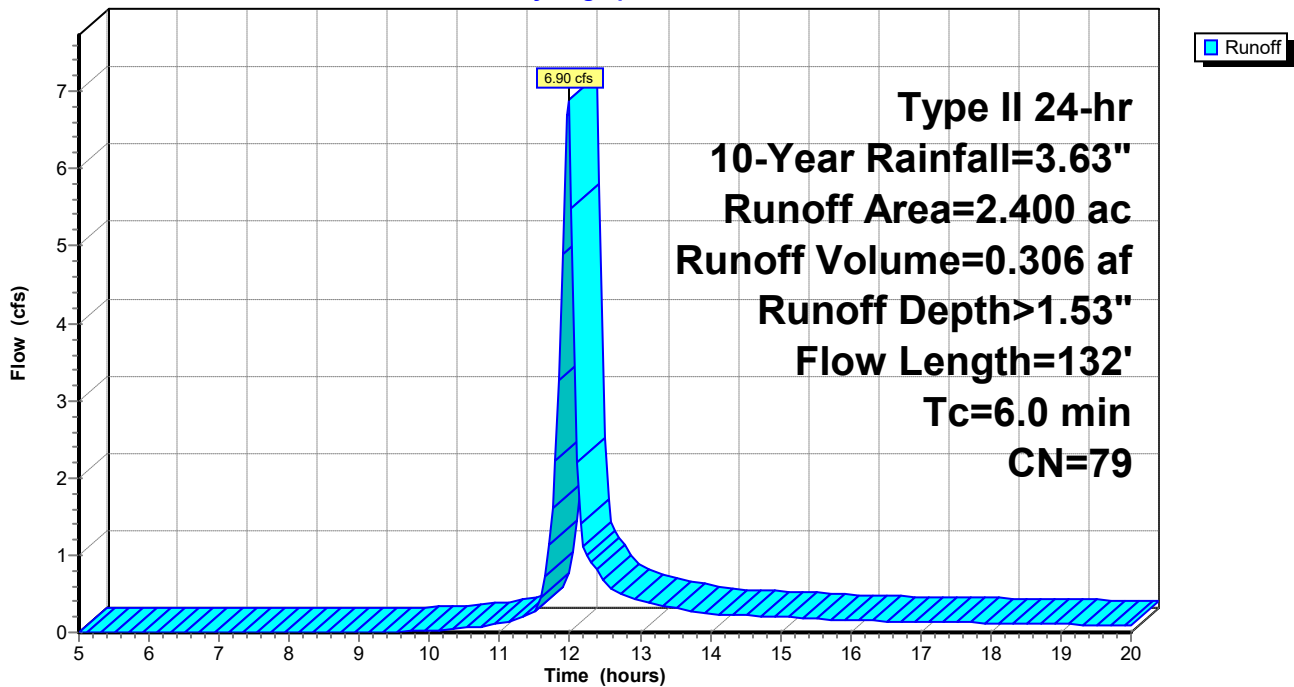
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
2.400	79	Woods, Fair, HSG D
2.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	132		0.37		Direct Entry, Sheet Flow

**Subcatchment DR-B: Overland**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-C: Depression**

Runoff = 88.48 cfs @ 11.97 hrs, Volume= 3.930 af, Depth> 1.60"

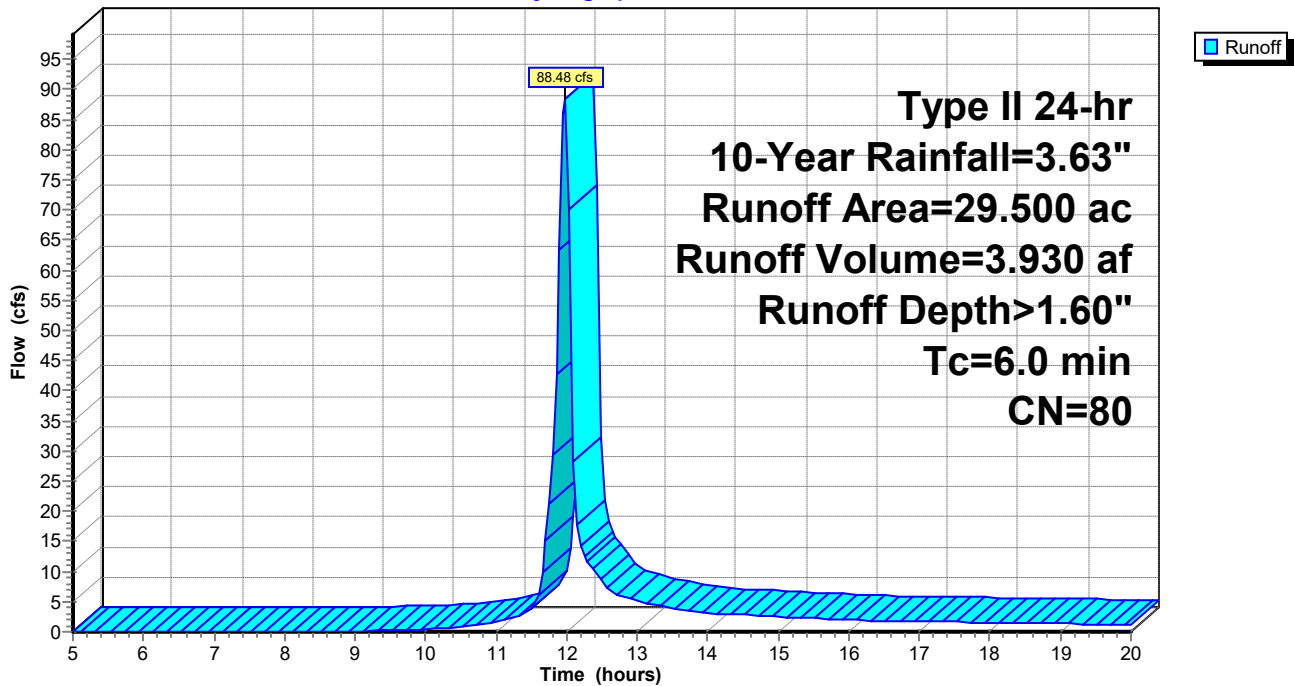
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
3.970	77	Brush, Fair, HSG D
2.500	96	Gravel surface, HSG D
23.030	79	Woods, Fair, HSG D
29.500	80	Weighted Average
29.500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-C: Depression**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-D: Overland**

Runoff = 6.25 cfs @ 12.93 hrs, Volume= 1.110 af, Depth> 1.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

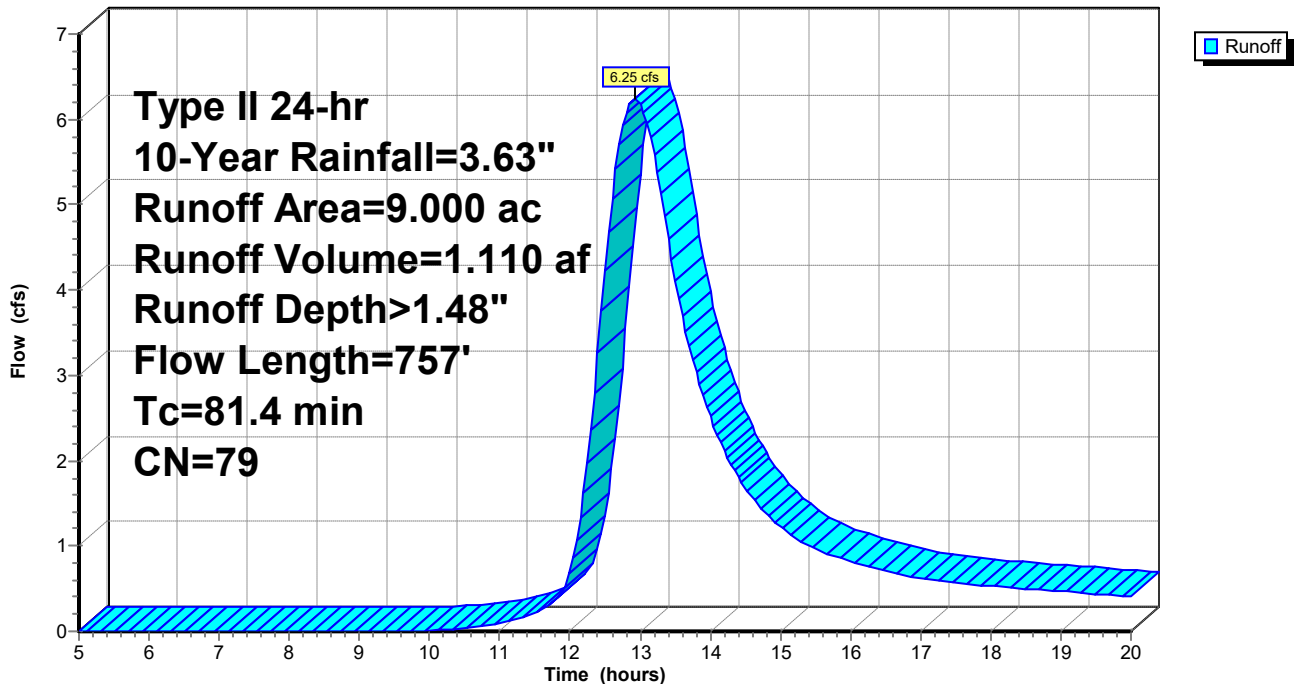
Area (ac)	CN	Description
9.000	79	Woods, Fair, HSG D
9.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.6	150	0.0050	0.04		<b>Sheet Flow, Sheet Flow</b> Woods: Light underbrush n= 0.400 P2= 2.67"
23.9	507	0.0050	0.35		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
0.9	100	0.1300	1.80		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
81.4	757	Total			

**Subcatchment DR-D: Overland**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-E: Overland**

Runoff = 17.64 cfs @ 12.35 hrs, Volume= 1.837 af, Depth> 1.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

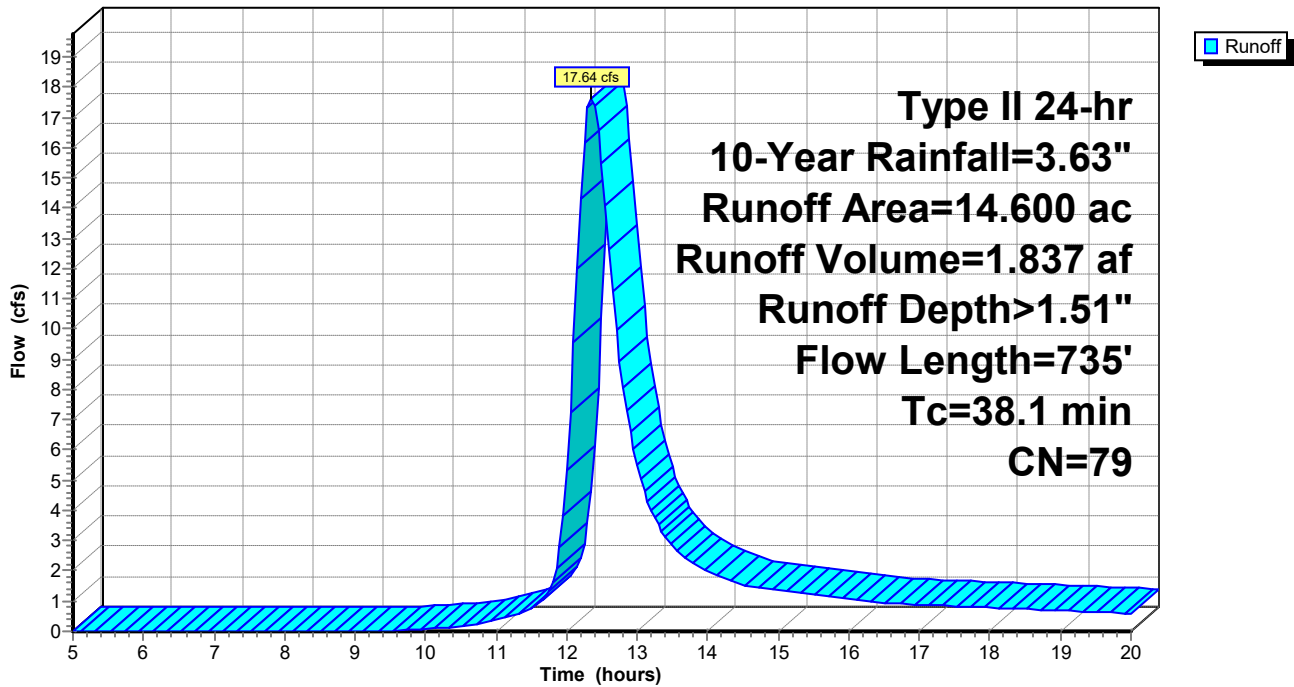
Area (ac)	CN	Description
14.600	79	Woods, Fair, HSG D
14.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	150	0.0300	0.09		<b>Sheet Flow, Sheet Flow</b> Woods: Light underbrush n= 0.400 P2= 2.67"
9.8	510	0.0300	0.87		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
0.7	75	0.1200	1.73		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
38.1	735	Total			

**Subcatchment DR-E: Overland**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-F: Overland**

Runoff = 0.34 cfs @ 13.10 hrs, Volume= 0.132 af, Depth> 0.13"

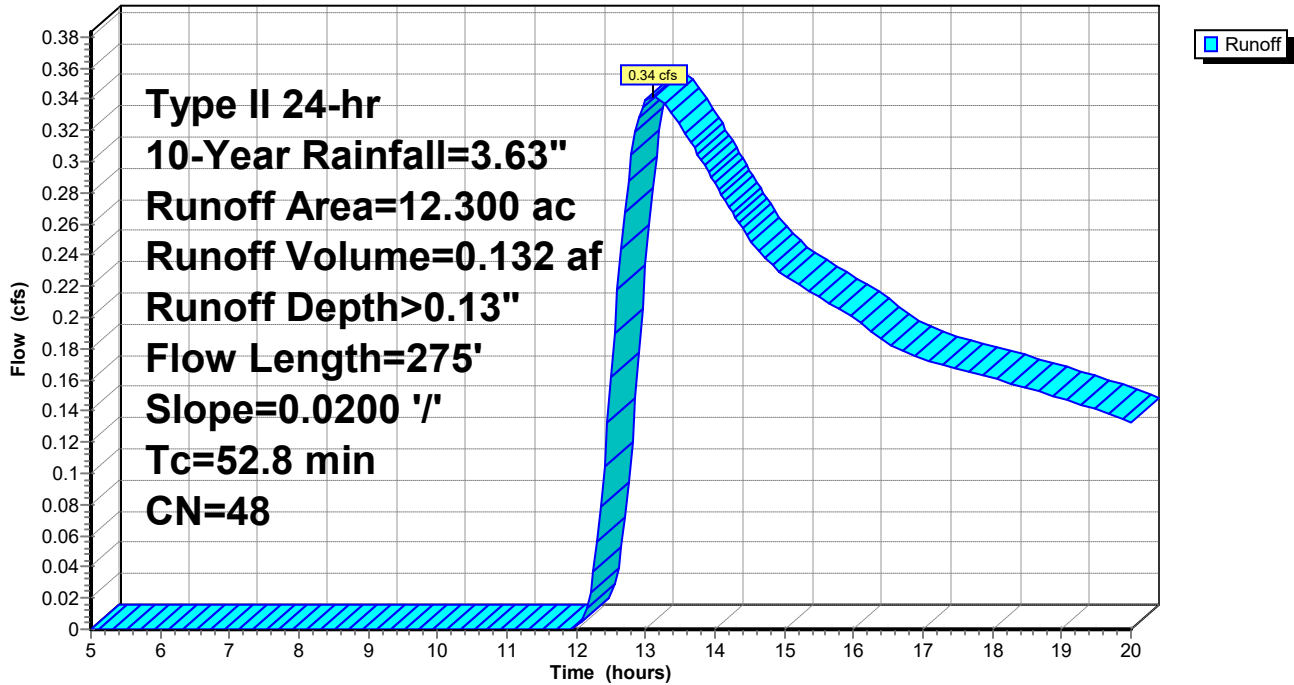
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 1.100	98	Pavement
11.200	43	Woods/grass comb., Fair, HSG A
12.300	48	Weighted Average
11.200		91.06% Pervious Area
1.100		8.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
52.8	275	0.0200	0.09		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.67"

**Subcatchment DR-F: Overland**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-G: Roadway**

Runoff = 1.84 cfs @ 11.98 hrs, Volume= 0.080 af, Depth> 1.27"

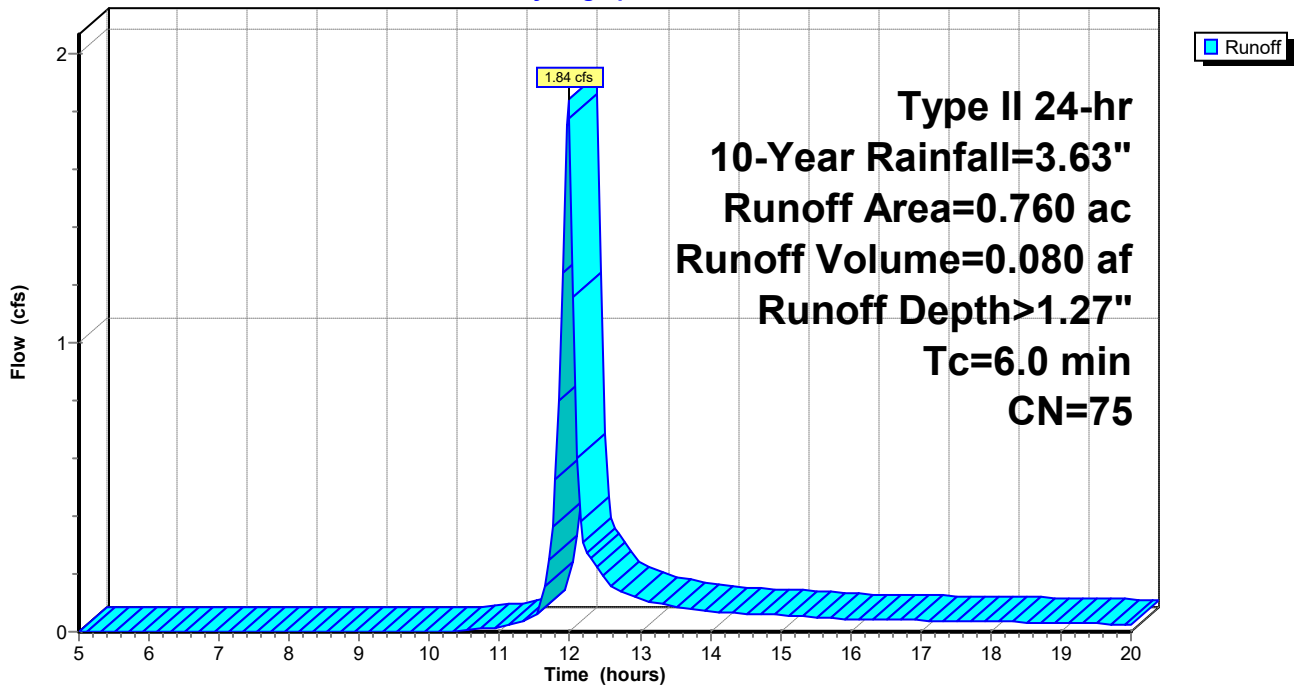
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 0.460	98	Roadway
0.300	39	>75% Grass cover, Good, HSG A
0.760	75	Weighted Average
0.300		39.47% Pervious Area
0.460		60.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-G: Roadway**

Hydrograph





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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Reach 1W: Wetland #1**

Inflow Area = 39.800 ac, 2.76% Impervious, Inflow Depth > 1.59" for 10-Year event  
Inflow = 73.24 cfs @ 12.15 hrs, Volume= 5.272 af  
Outflow = 14.53 cfs @ 14.82 hrs, Volume= 3.841 af, Atten= 80%, Lag= 160.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.13 fps, Min. Travel Time= 127.8 min  
Avg. Velocity = 0.07 fps, Avg. Travel Time= 239.5 min

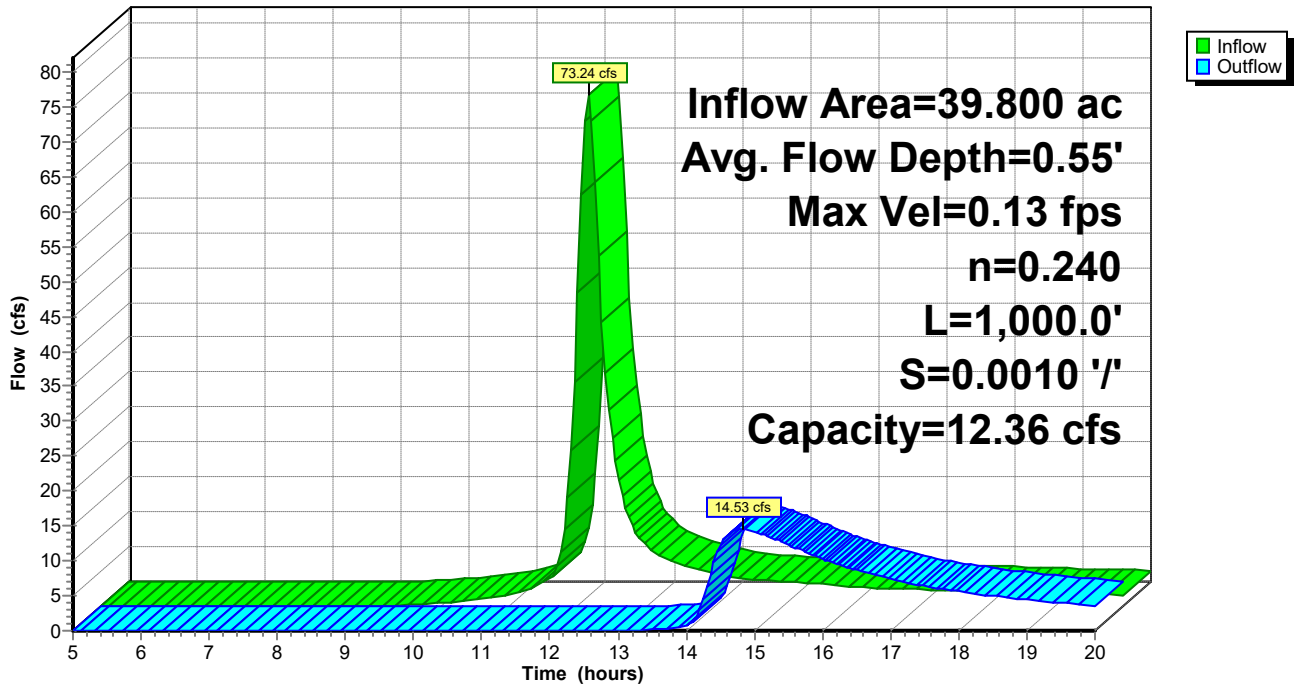
Peak Storage= 111,494 cf @ 12.69 hrs  
Average Depth at Peak Storage= 0.55' , Surface Width= 203.32'  
Bank-Full Depth= 0.50' Flow Area= 100.8 sf, Capacity= 12.36 cfs

200.00' x 0.50' deep channel, n= 0.240 Sheet flow over Dense Grass  
Side Slope Z-value= 3.0 '/' Top Width= 203.00'  
Length= 1,000.0' Slope= 0.0010 '/'  
Inlet Invert= 6.00', Outlet Invert= 5.00'



**Reach 1W: Wetland #1**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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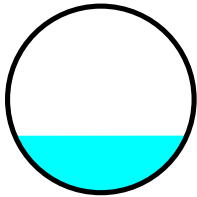
## Summary for Reach 2R: Outlet Pipe

Inflow Area = 39.800 ac, 2.76% Impervious, Inflow Depth > 1.16" for 10-Year event  
Inflow = 14.53 cfs @ 14.82 hrs, Volume= 3.841 af  
Outflow = 14.53 cfs @ 14.83 hrs, Volume= 3.838 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Max. Velocity= 6.38 fps, Min. Travel Time= 0.2 min  
Avg. Velocity = 3.89 fps, Avg. Travel Time= 0.3 min

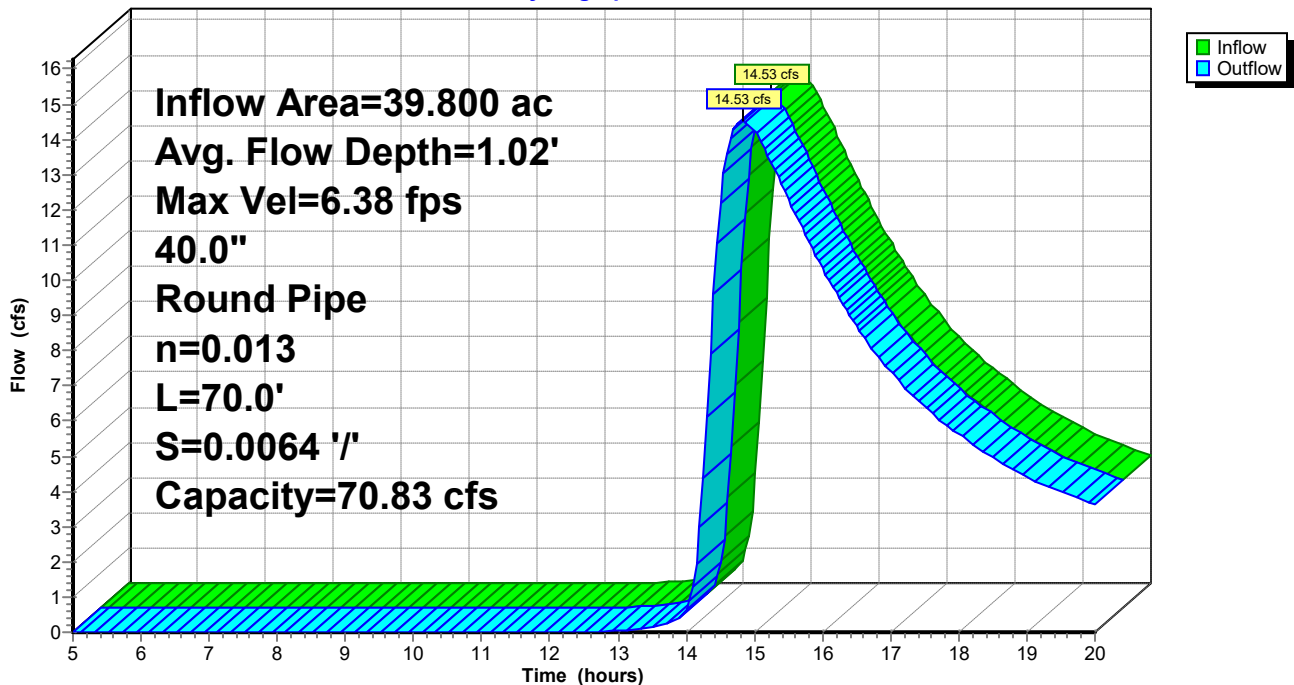
Peak Storage= 159 cf @ 14.82 hrs  
Average Depth at Peak Storage= 1.02' , Surface Width= 3.08'  
Bank-Full Depth= 3.33' Flow Area= 8.7 sf, Capacity= 70.83 cfs

40.0" Round Pipe  
n= 0.013 Corrugated PE, smooth interior  
Length= 70.0' Slope= 0.0064 '/'  
Inlet Invert= 4.25', Outlet Invert= 3.80'



## Reach 2R: Outlet Pipe

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 10-Year Rainfall=3.63"

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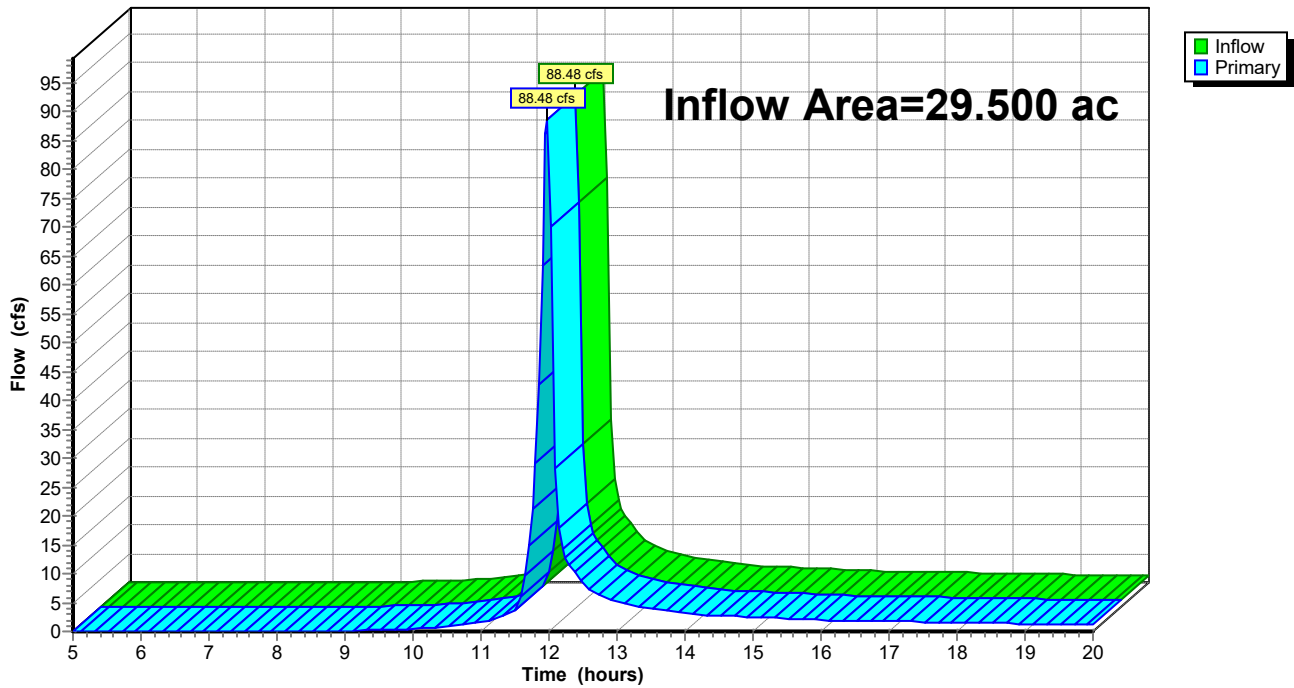
**Summary for Pond 1P: Infiltration**

Inflow Area = 29.500 ac, 0.00% Impervious, Inflow Depth > 1.60" for 10-Year event  
Inflow = 88.48 cfs @ 11.97 hrs, Volume= 3.930 af  
Primary = 88.48 cfs @ 11.97 hrs, Volume= 3.930 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Pond 1P: Infiltration**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 10-Year Rainfall=3.63"

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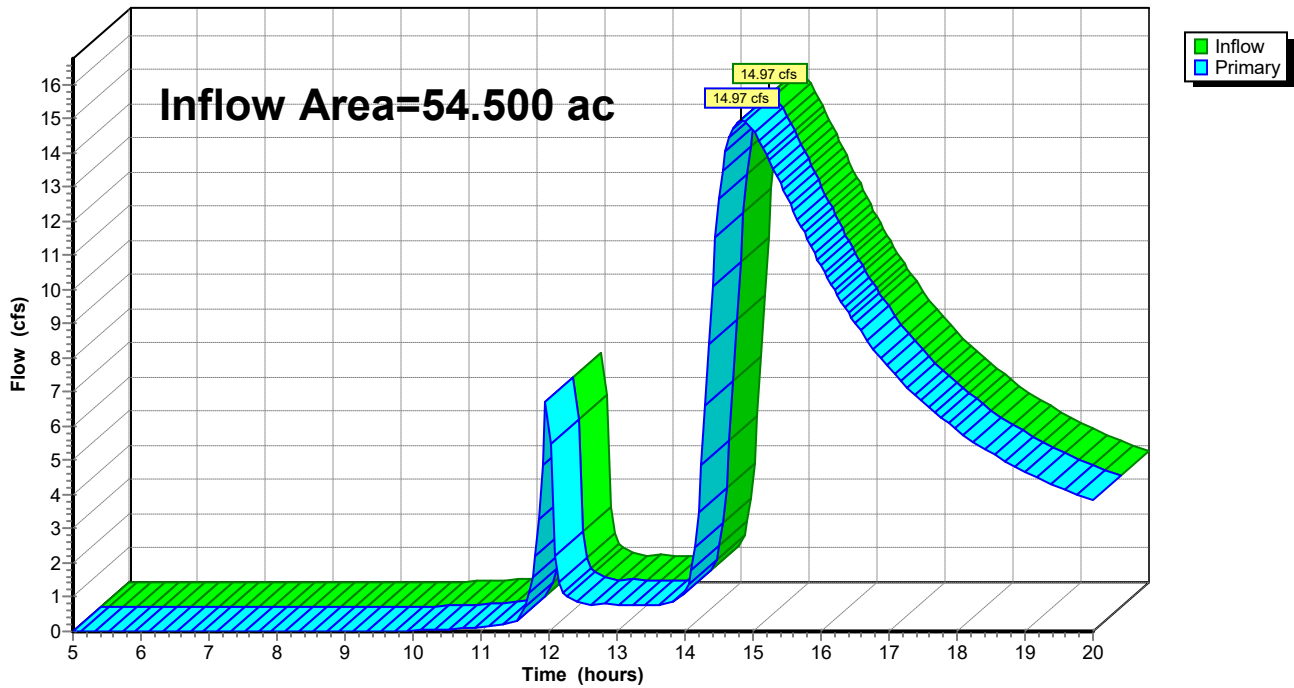
**Summary for Pond AP-1: Analysis Point #1**

Inflow Area = 54.500 ac, 4.04% Impervious, Inflow Depth > 0.94" for 10-Year event  
Inflow = 14.97 cfs @ 14.82 hrs, Volume= 4.276 af  
Primary = 14.97 cfs @ 14.82 hrs, Volume= 4.276 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Pond AP-1: Analysis Point #1**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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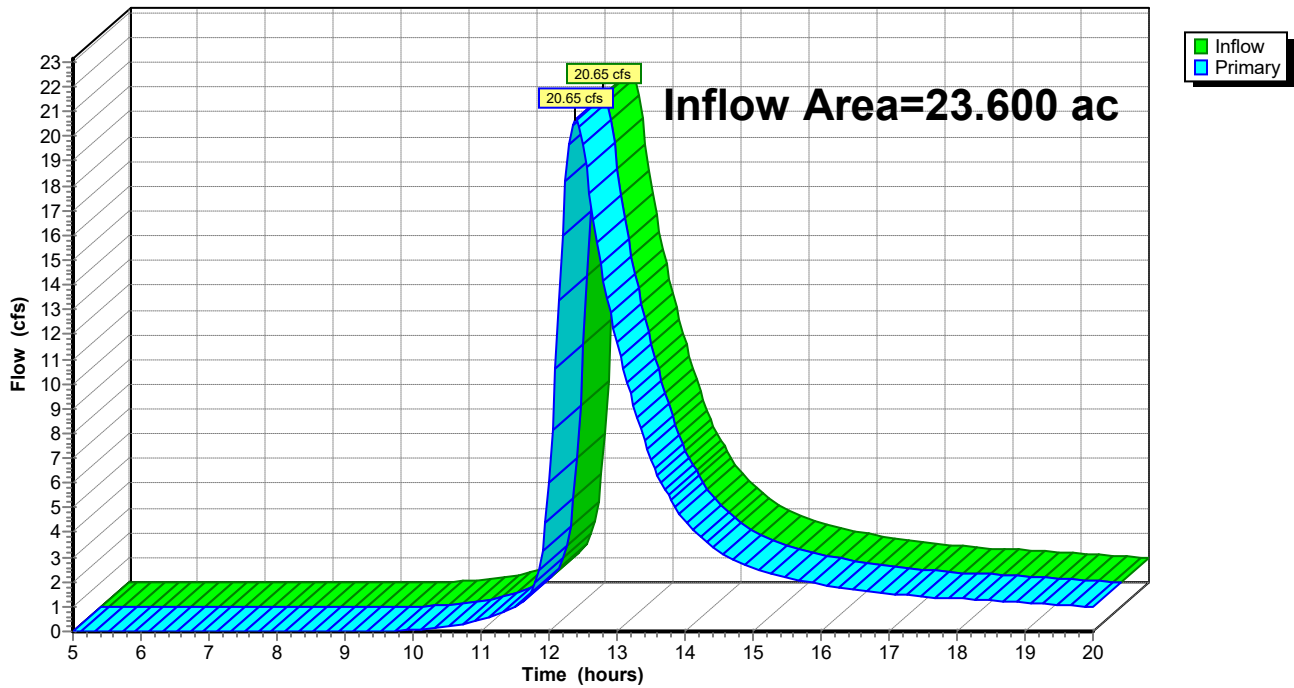
## Summary for Pond AP-2: Analysis Point #2

Inflow Area = 23.600 ac, 0.00% Impervious, Inflow Depth > 1.50" for 10-Year event  
Inflow = 20.65 cfs @ 12.40 hrs, Volume= 2.947 af  
Primary = 20.65 cfs @ 12.40 hrs, Volume= 2.947 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

## Pond AP-2: Analysis Point #2

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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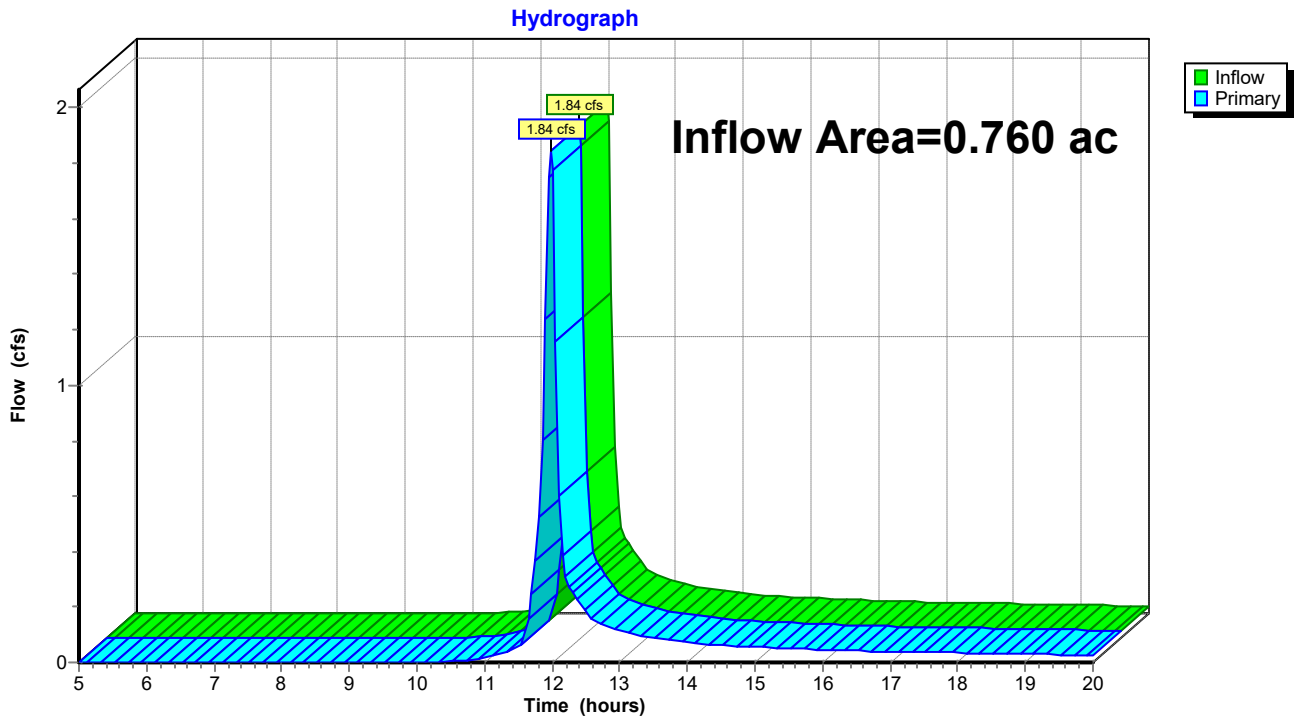
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**Summary for Pond AP-3: Analysis Point #3**

Inflow Area = 0.760 ac, 60.53% Impervious, Inflow Depth > 1.27" for 10-Year event  
Inflow = 1.84 cfs @ 11.98 hrs, Volume= 0.080 af  
Primary = 1.84 cfs @ 11.98 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Pond AP-3: Analysis Point #3**



**18641.00-Existing Condition**

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Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-A: Overland**

Runoff = 163.60 cfs @ 12.14 hrs, Volume= 11.919 af, Depth> 3.59"

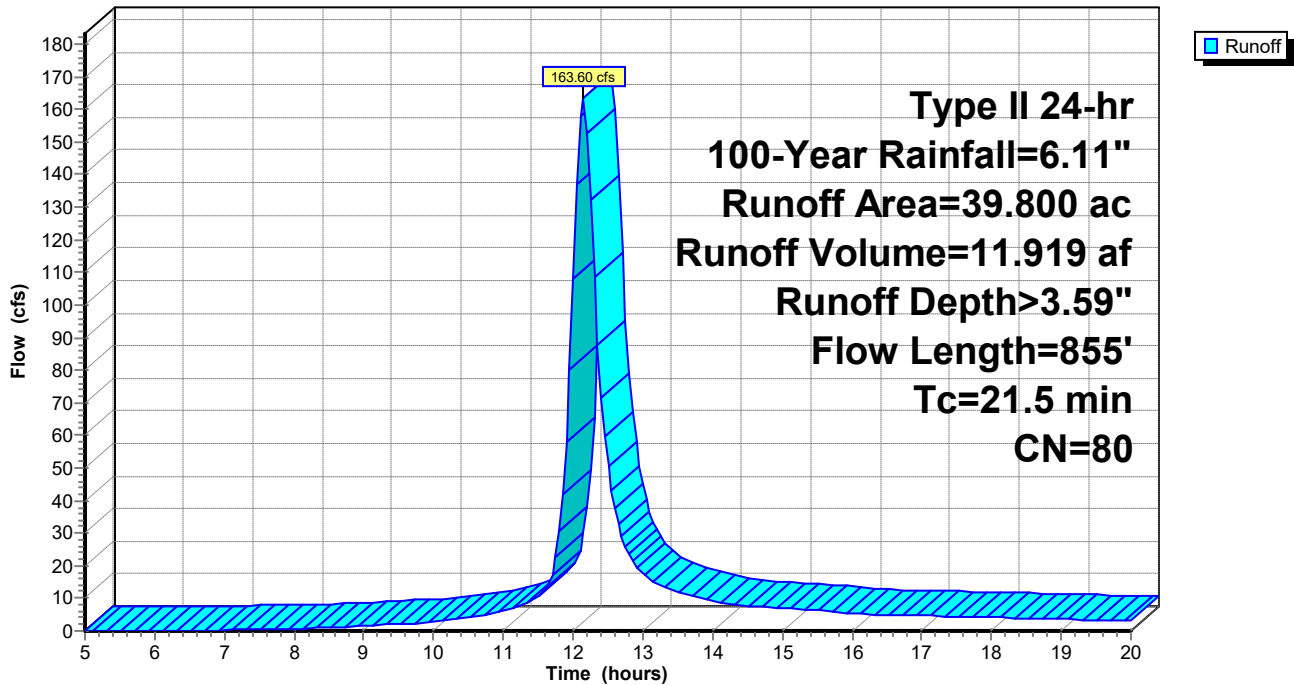
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
38.700	79	Woods, Fair, HSG D
* 1.100	98	Existing Railroad
39.800	80	Weighted Average
38.700		97.24% Pervious Area
1.100		2.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	150	0.1500	0.17		<b>Sheet Flow, Sheet Flow</b> Woods: Light underbrush n= 0.400 P2= 2.67"
4.8	575	0.1600	2.00		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
2.2	130	0.0400	1.00		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
21.5	855	Total			

**Subcatchment DR-A: Overland**

Hydrograph



**18641.00-Existing Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-B: Overland**

Runoff = 15.35 cfs @ 11.97 hrs, Volume= 0.702 af, Depth> 3.51"

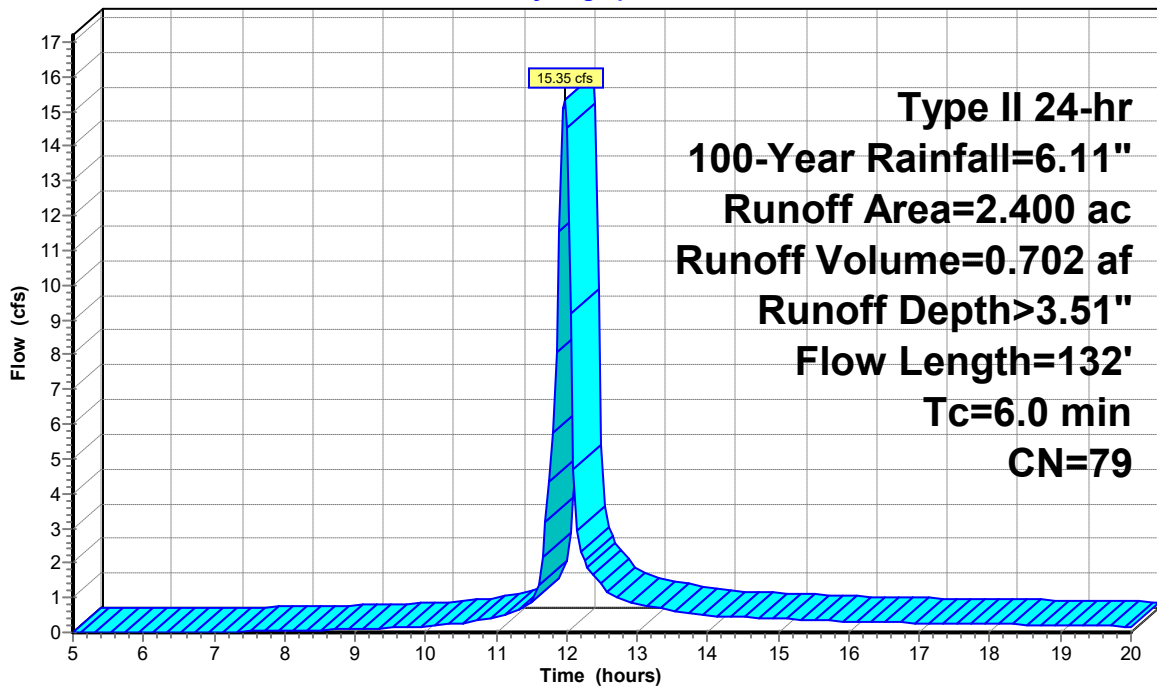
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
2.400	79	Woods, Fair, HSG D
2.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	132		0.37		Direct Entry, Sheet Flow

**Subcatchment DR-B: Overland**

Hydrograph



Runoff



**18641.00-Existing Condition**

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Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-C: Depression**

Runoff = 193.14 cfs @ 11.97 hrs, Volume= 8.878 af, Depth> 3.61"

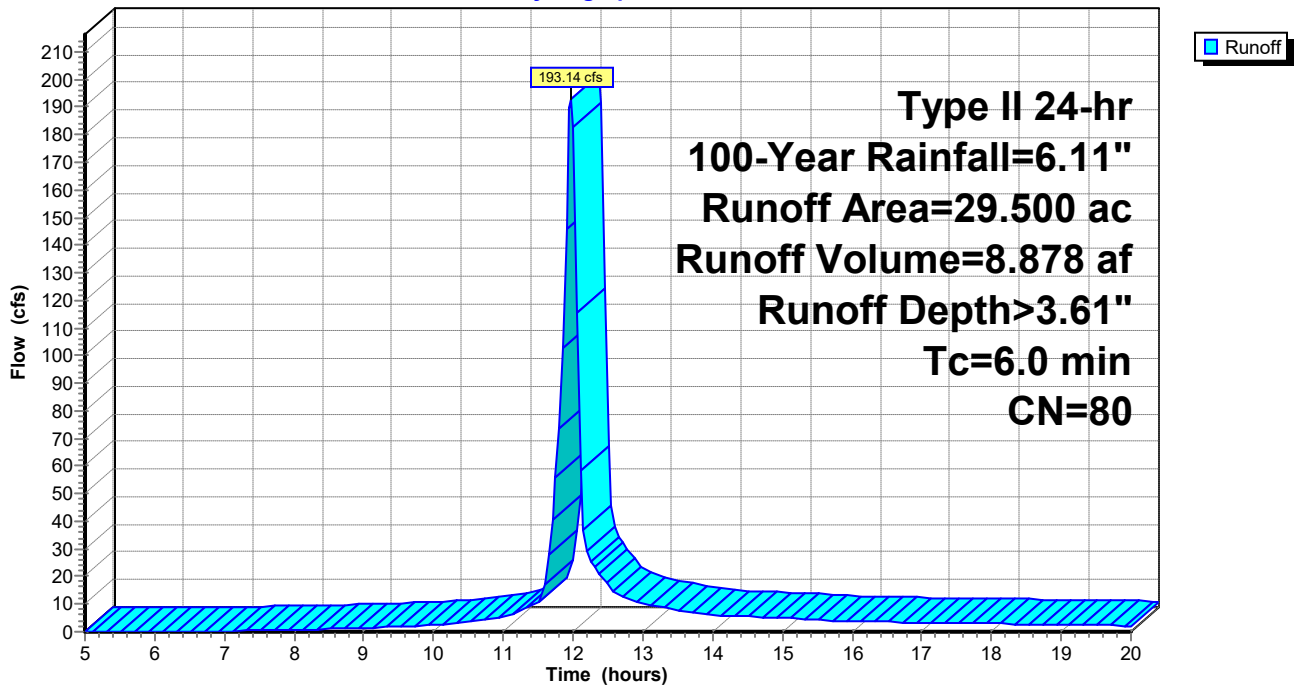
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
3.970	77	Brush, Fair, HSG D
2.500	96	Gravel surface, HSG D
23.030	79	Woods, Fair, HSG D
29.500	80	Weighted Average
29.500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-C: Depression**

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-D: Overland**

Runoff = 14.49 cfs @ 12.90 hrs, Volume= 2.563 af, Depth> 3.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

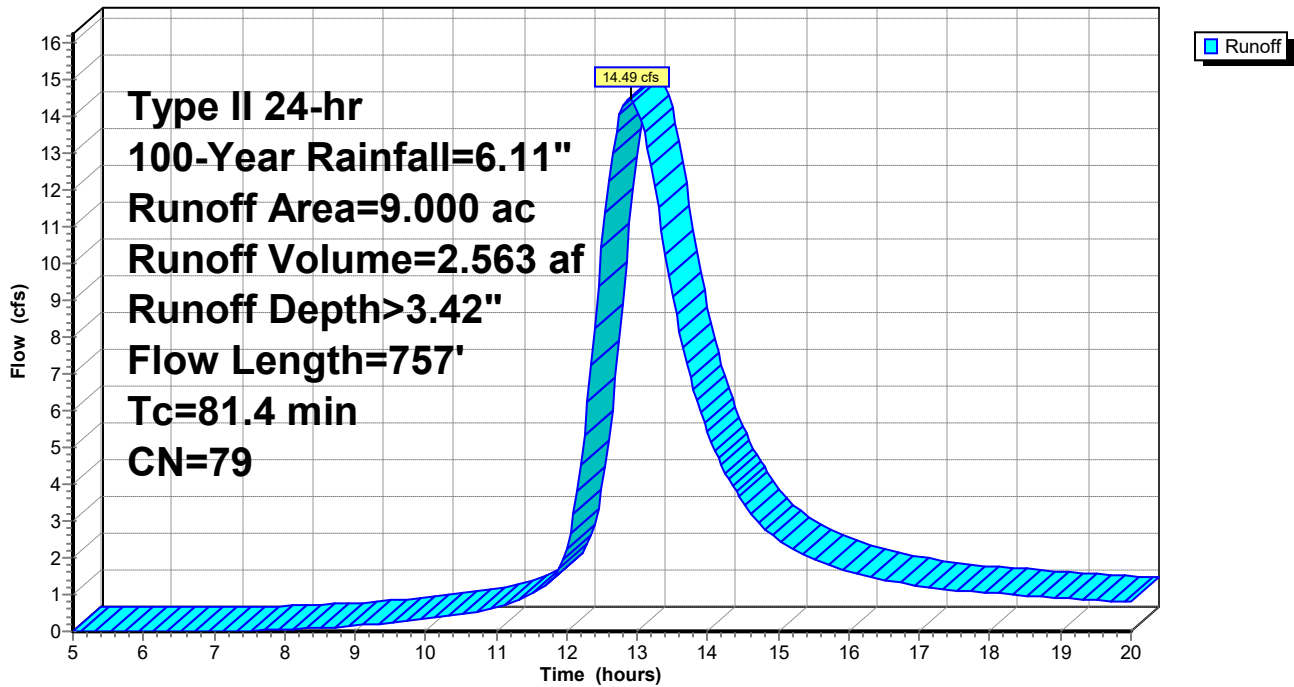
Area (ac)	CN	Description
9.000	79	Woods, Fair, HSG D
9.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.6	150	0.0050	0.04		<b>Sheet Flow, Sheet Flow</b> Woods: Light underbrush n= 0.400 P2= 2.67"
23.9	507	0.0050	0.35		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
0.9	100	0.1300	1.80		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps

81.4 757 Total

**Subcatchment DR-D: Overland**

Hydrograph



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Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-E: Overland**

Runoff = 40.67 cfs @ 12.34 hrs, Volume= 4.227 af, Depth> 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 100-Year Rainfall=6.11"

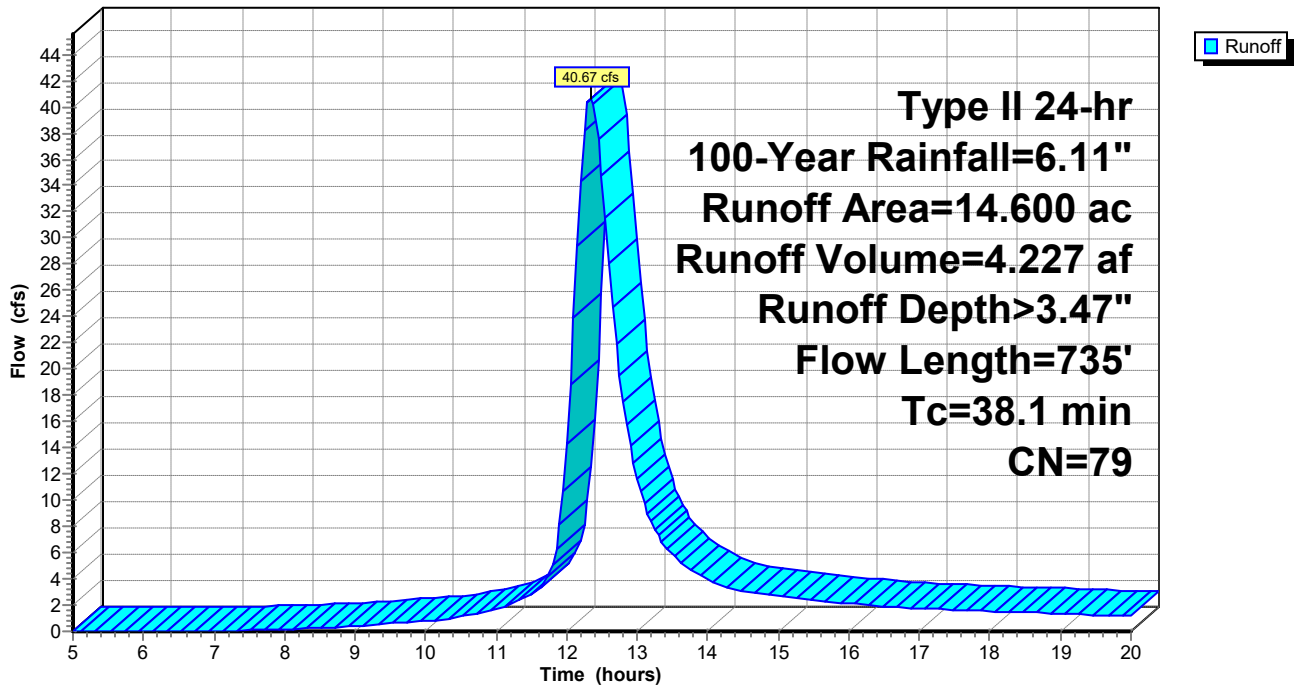
Area (ac)	CN	Description
14.600	79	Woods, Fair, HSG D
14.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	150	0.0300	0.09		<b>Sheet Flow, Sheet Flow</b> Woods: Light underbrush n= 0.400 P2= 2.67"
9.8	510	0.0300	0.87		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
0.7	75	0.1200	1.73		<b>Shallow Concentrated Flow, Shallow Concentrated</b> Woodland Kv= 5.0 fps
38.1	735	Total			

**Subcatchment DR-E: Overland**

Hydrograph



**18641.00-Existing Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-F: Overland**

Runoff = 5.45 cfs @ 12.64 hrs, Volume= 0.912 af, Depth> 0.89"

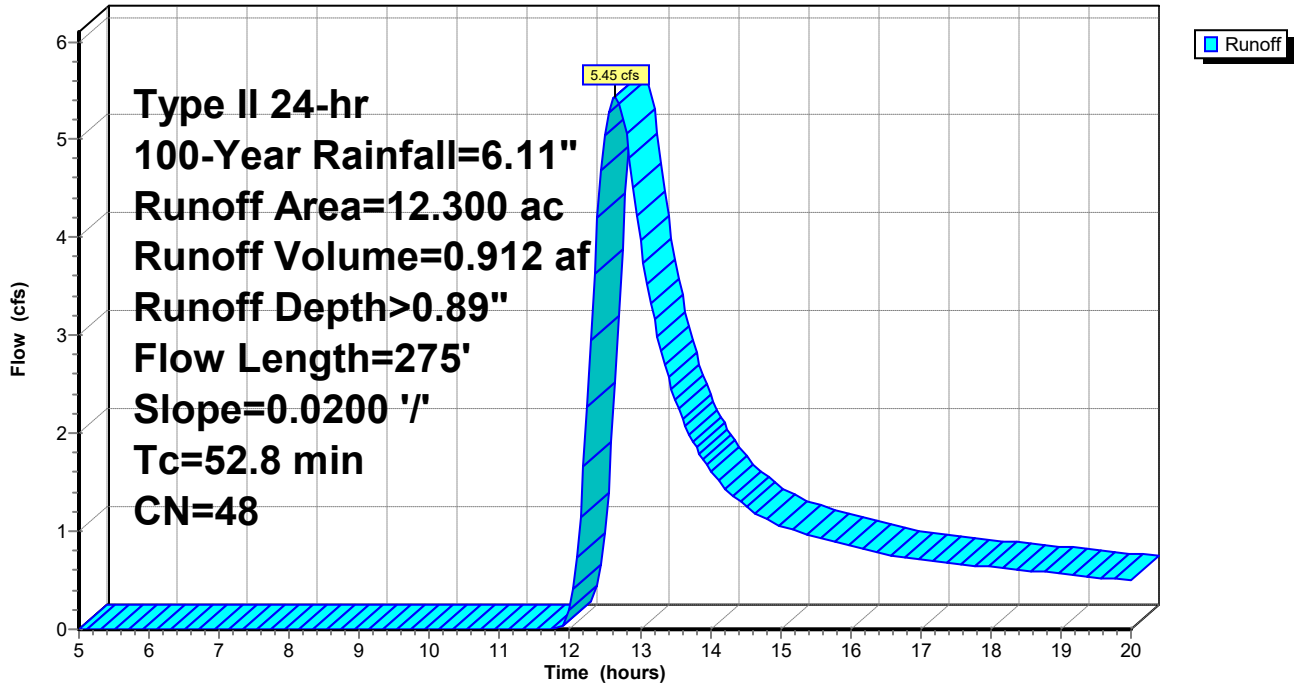
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 1.100	98	Pavement
11.200	43	Woods/grass comb., Fair, HSG A
12.300	48	Weighted Average
11.200		91.06% Pervious Area
1.100		8.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
52.8	275	0.0200	0.09		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.67"

**Subcatchment DR-F: Overland**

Hydrograph



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**Summary for Subcatchment DR-G: Roadway**

Runoff = 4.39 cfs @ 11.97 hrs, Volume= 0.198 af, Depth> 3.12"

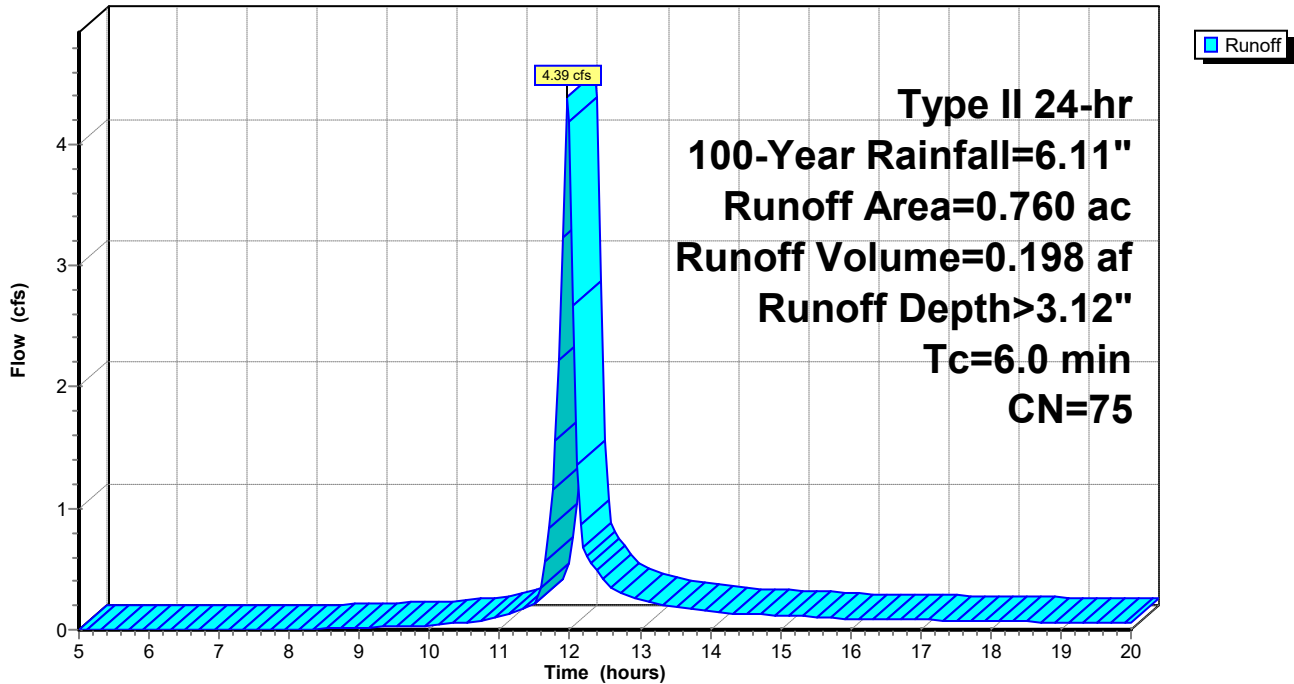
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 0.460	98	Roadway
0.300	39	>75% Grass cover, Good, HSG A
0.760	75	Weighted Average
0.300		39.47% Pervious Area
0.460		60.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-G: Roadway**

Hydrograph



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Type II 24-hr 100-Year Rainfall=6.11"

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## Summary for Reach 1W: Wetland #1

Inflow Area = 39.800 ac, 2.76% Impervious, Inflow Depth > 3.59" for 100-Year event  
Inflow = 163.60 cfs @ 12.14 hrs, Volume= 11.919 af  
Outflow = 41.52 cfs @ 14.21 hrs, Volume= 9.967 af, Atten= 75%, Lag= 123.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.17 fps, Min. Travel Time= 98.2 min  
Avg. Velocity = 0.08 fps, Avg. Travel Time= 203.6 min

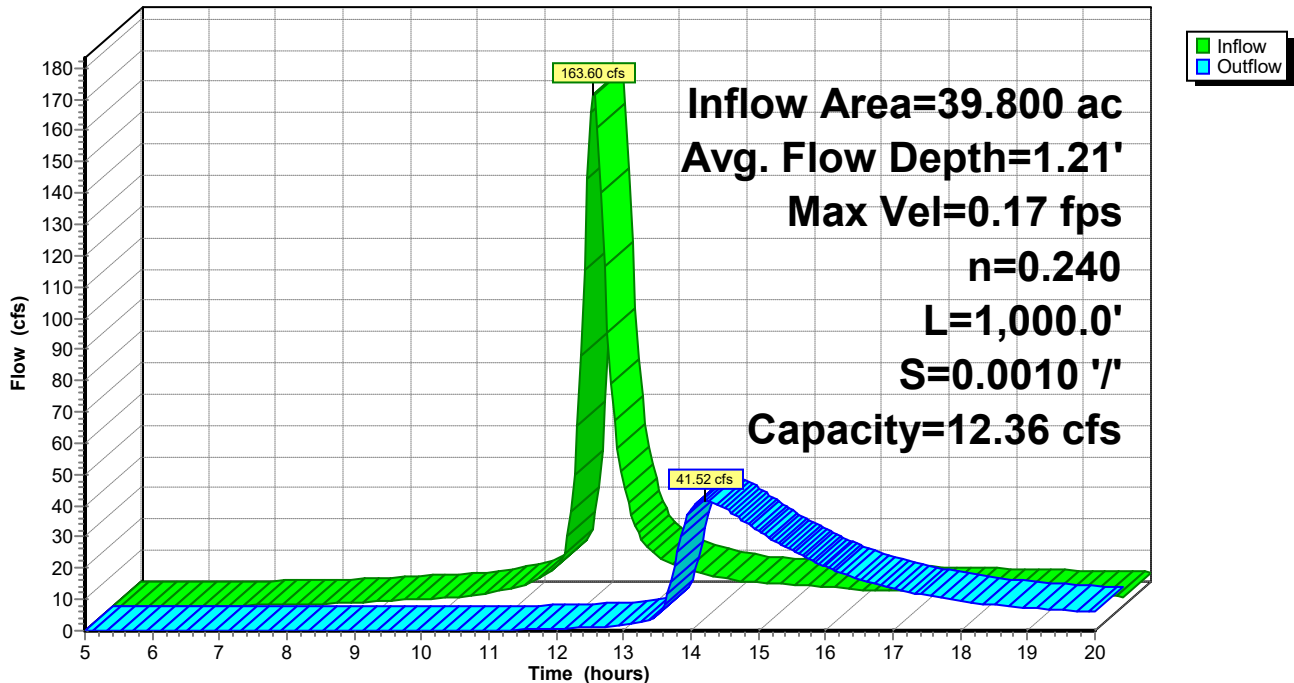
Peak Storage= 244,871 cf @ 12.57 hrs  
Average Depth at Peak Storage= 1.21' , Surface Width= 207.26'  
Bank-Full Depth= 0.50' Flow Area= 100.8 sf, Capacity= 12.36 cfs

200.00' x 0.50' deep channel, n= 0.240 Sheet flow over Dense Grass  
Side Slope Z-value= 3.0 ' / ' Top Width= 203.00'  
Length= 1,000.0' Slope= 0.0010 ' / '  
Inlet Invert= 6.00', Outlet Invert= 5.00'



## Reach 1W: Wetland #1

### Hydrograph



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Type II 24-hr 100-Year Rainfall=6.11"

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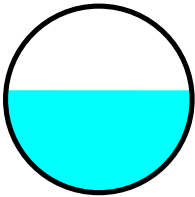
## Summary for Reach 2R: Outlet Pipe

Inflow Area = 39.800 ac, 2.76% Impervious, Inflow Depth > 3.01" for 100-Year event  
Inflow = 41.52 cfs @ 14.21 hrs, Volume= 9.967 af  
Outflow = 41.52 cfs @ 14.21 hrs, Volume= 9.964 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Max. Velocity= 8.44 fps, Min. Travel Time= 0.1 min  
Avg. Velocity = 4.38 fps, Avg. Travel Time= 0.3 min

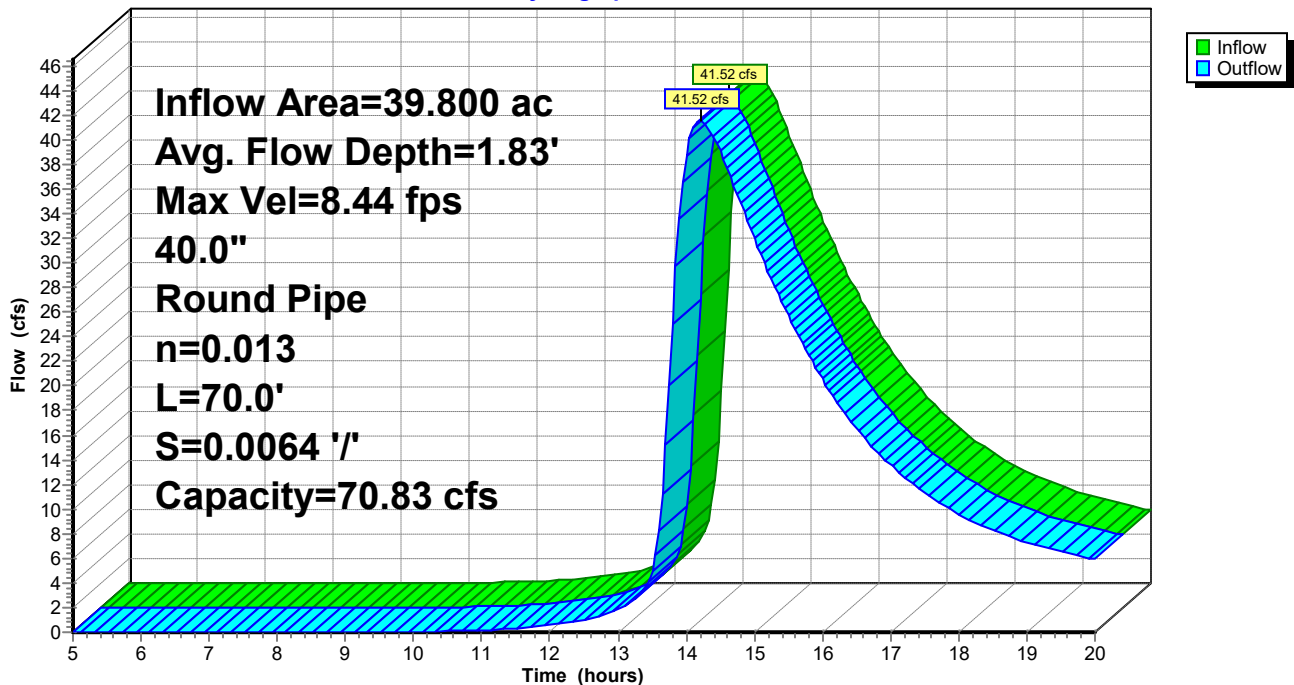
Peak Storage= 345 cf @ 14.21 hrs  
Average Depth at Peak Storage= 1.83' , Surface Width= 3.32'  
Bank-Full Depth= 3.33' Flow Area= 8.7 sf, Capacity= 70.83 cfs

40.0" Round Pipe  
n= 0.013 Corrugated PE, smooth interior  
Length= 70.0' Slope= 0.0064 '/'  
Inlet Invert= 4.25', Outlet Invert= 3.80'



## Reach 2R: Outlet Pipe

### Hydrograph



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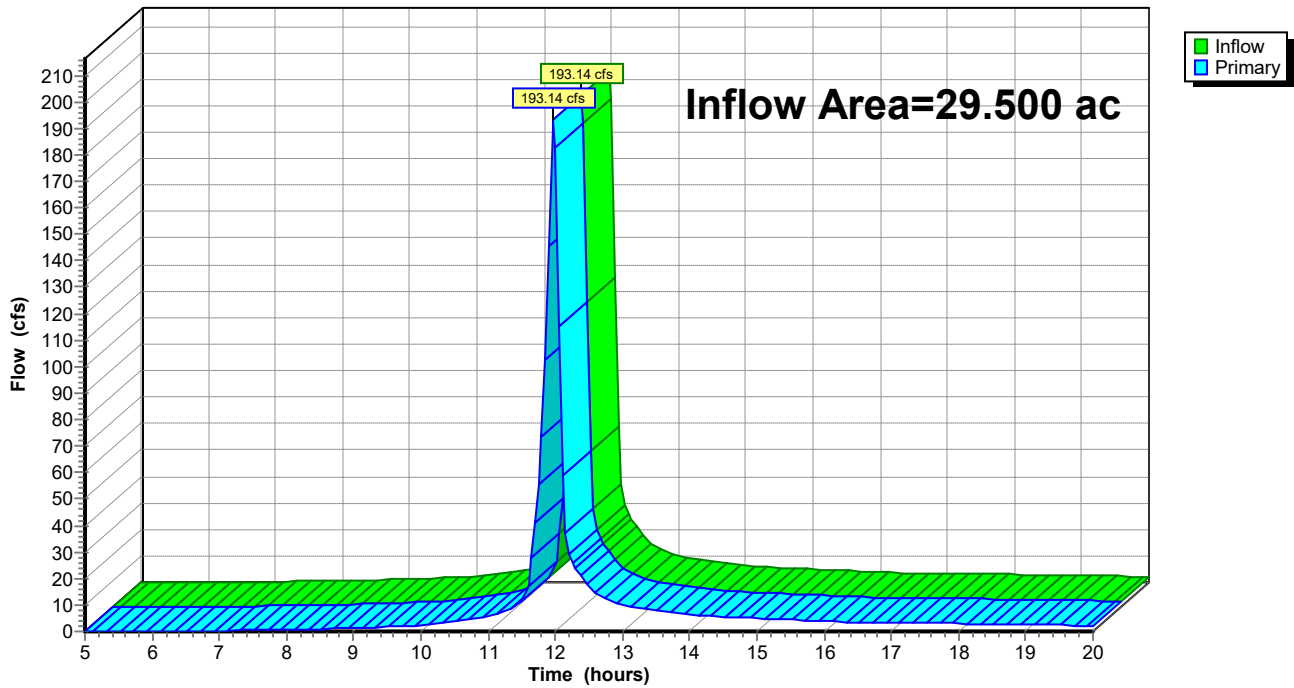
**Summary for Pond 1P: Infiltration**

Inflow Area = 29.500 ac, 0.00% Impervious, Inflow Depth > 3.61" for 100-Year event  
Inflow = 193.14 cfs @ 11.97 hrs, Volume= 8.878 af  
Primary = 193.14 cfs @ 11.97 hrs, Volume= 8.878 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Pond 1P: Infiltration**

Hydrograph





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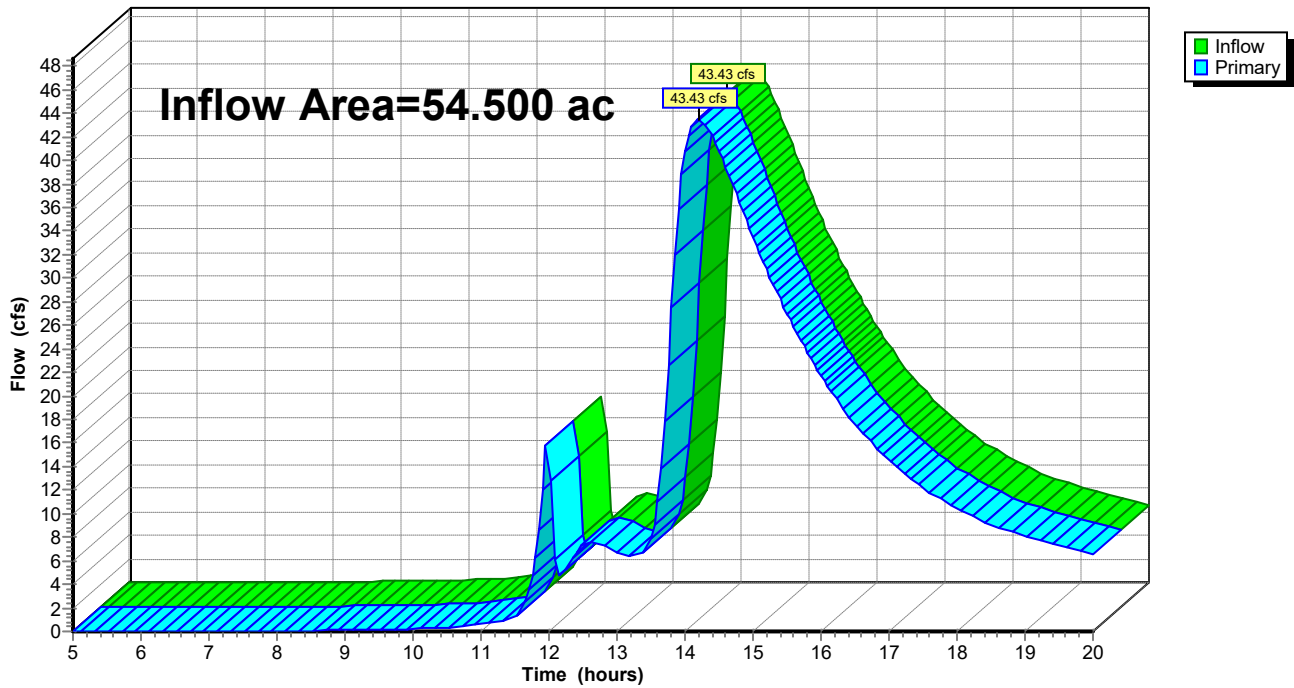
## Summary for Pond AP-1: Analysis Point #1

Inflow Area = 54.500 ac, 4.04% Impervious, Inflow Depth > 2.55" for 100-Year event  
Inflow = 43.43 cfs @ 14.20 hrs, Volume= 11.578 af  
Primary = 43.43 cfs @ 14.20 hrs, Volume= 11.578 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

## Pond AP-1: Analysis Point #1

Hydrograph



**18641.00-Existing Condition**

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Type II 24-hr 100-Year Rainfall=6.11"

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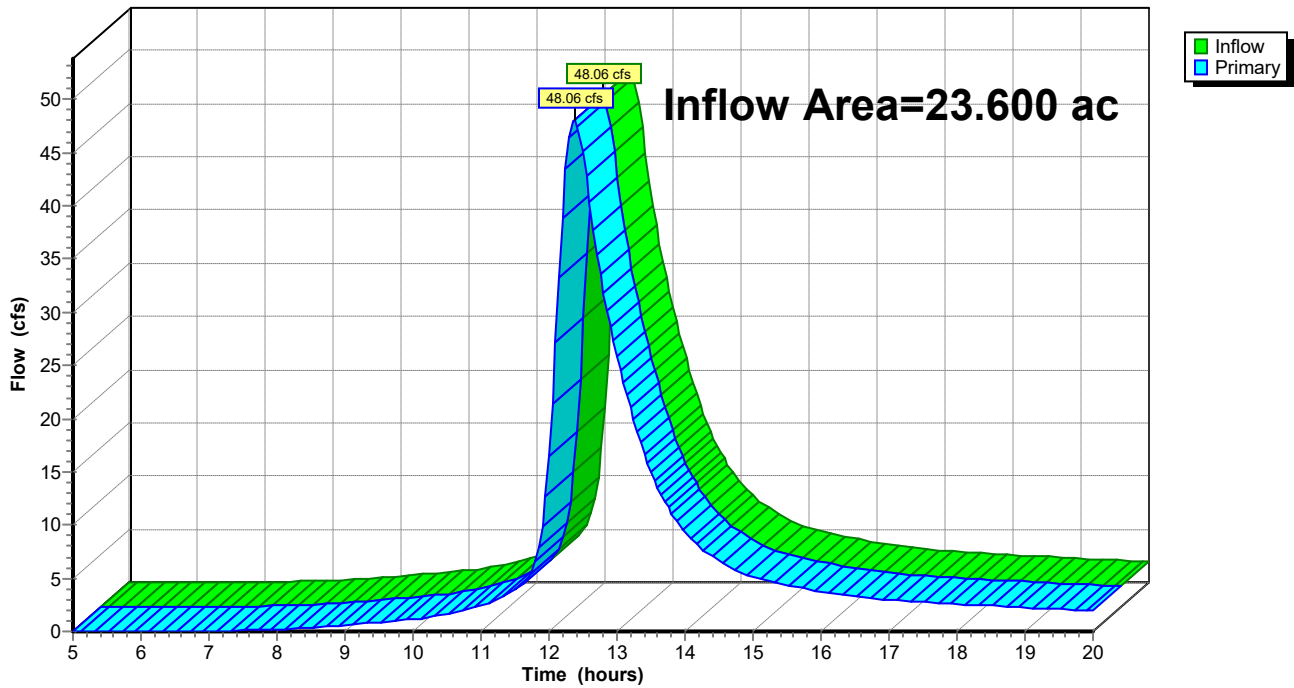
**Summary for Pond AP-2: Analysis Point #2**

Inflow Area = 23.600 ac, 0.00% Impervious, Inflow Depth > 3.45" for 100-Year event  
Inflow = 48.06 cfs @ 12.38 hrs, Volume= 6.789 af  
Primary = 48.06 cfs @ 12.38 hrs, Volume= 6.789 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Pond AP-2: Analysis Point #2**

Hydrograph



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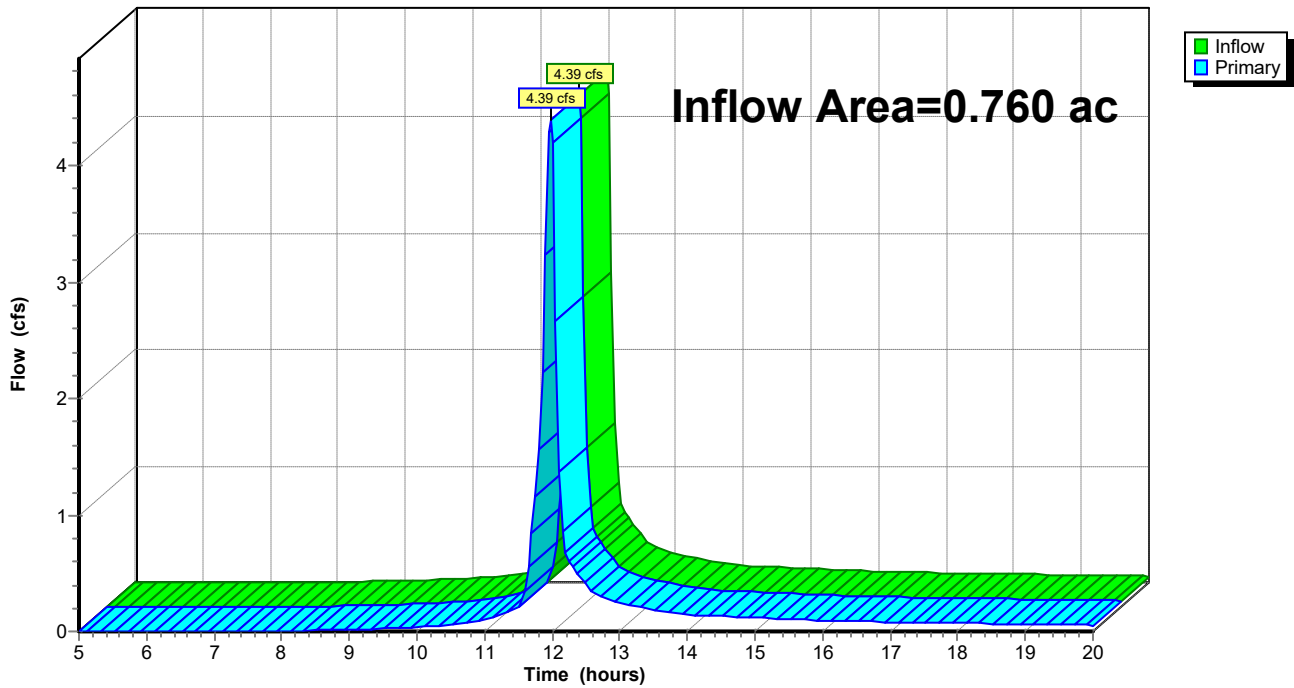
**Summary for Pond AP-3: Analysis Point #3**

Inflow Area = 0.760 ac, 60.53% Impervious, Inflow Depth > 3.12" for 100-Year event  
Inflow = 4.39 cfs @ 11.97 hrs, Volume= 0.198 af  
Primary = 4.39 cfs @ 11.97 hrs, Volume= 0.198 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Pond AP-3: Analysis Point #3**

Hydrograph



## **Appendix B**

# **Proposed Conditions Drainage Map and HydroCAD Report**





**McFarland Johnson**  
 60 RAILROAD PLACE  
 SUITE 402  
 SARATOGA SPRINGS, NEW YORK 12866  
 P: 518-580-9380 F: 518-580-9383  
 SaratogaROM@mjinc.com

PROJECT MILESTONE  
**NFC**

NO.	DATE	DESCRIPTION

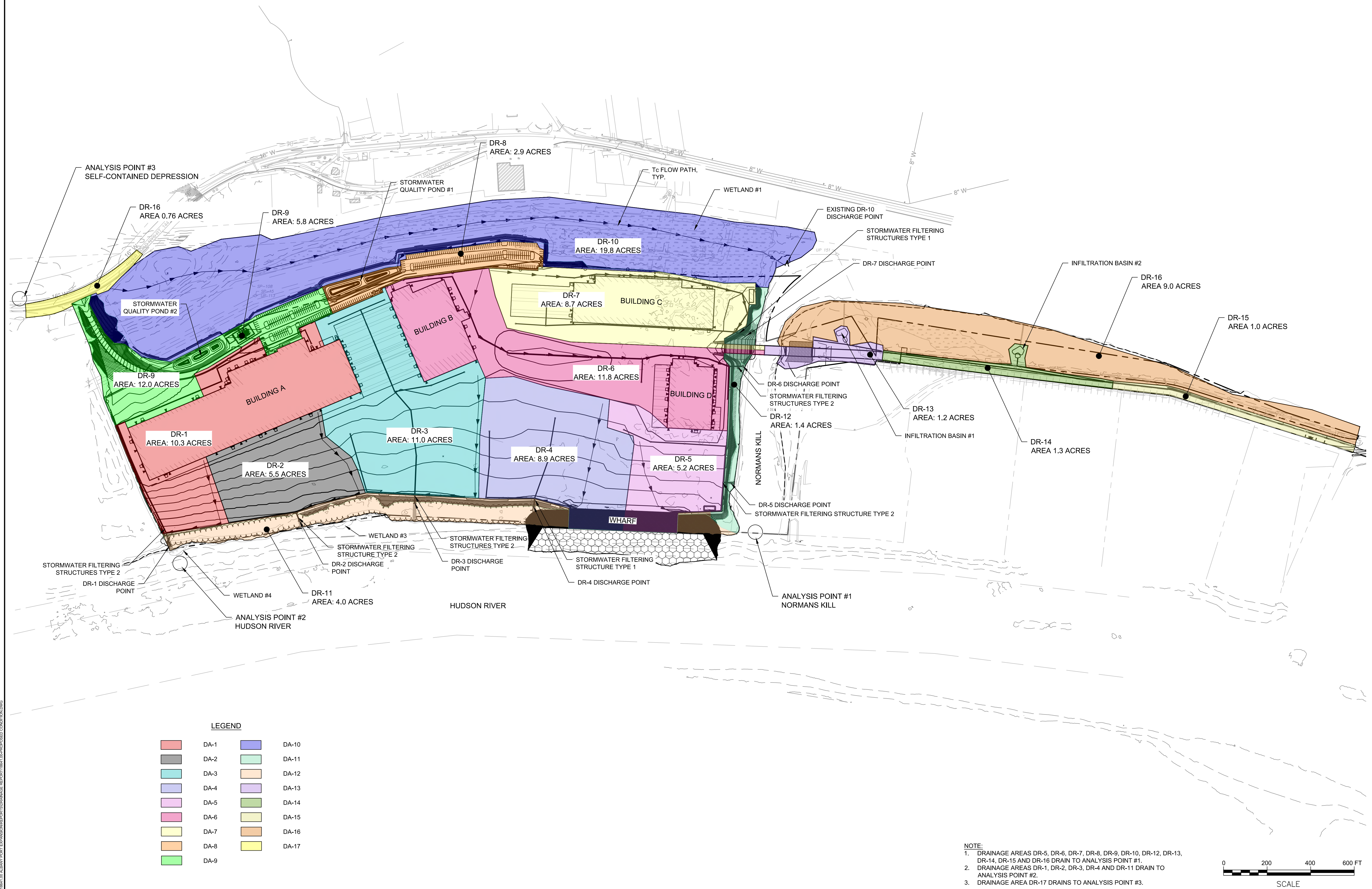
CLIENT: **ALBANY PORT DISTRICT COMMISSION**  
 ALBANY, NEW YORK  
 PROJECT: **PORT OF ALBANY SITE INFRASTRUCTURE IMPROVEMENTS**

DRAWN	NSO
DESIGNED	NSO
CHECKED	AJF
SCALE	1" = 200'
DATE	JANUARY 2022
PROJECT	18641.00

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE  
**POST-DEVELOPMENT SITE DRAINAGE AREAS**

DRAWING NUMBER  
**DR-PR**

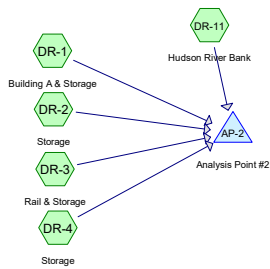
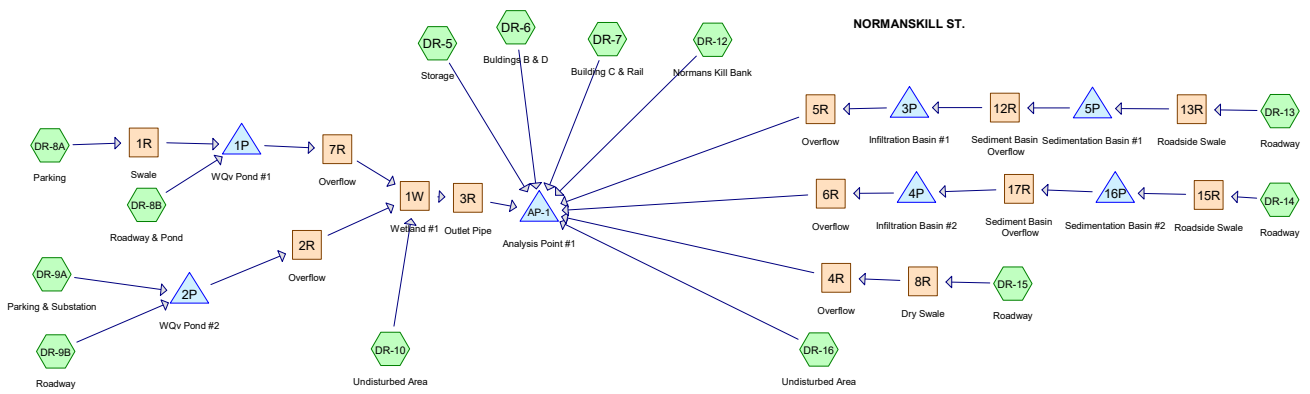


N:\18641\DR-ALBANY PORT EXPANSION\REPORTS\DRAINAGE REPORTS\FINAL\DR-PR.DWG

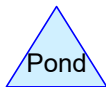
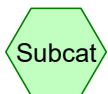
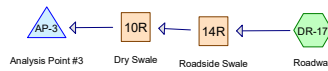


**EXPANSION SITE**

**NORMANSKILL ST.**



**OFFSITE IMPROVEMENTS**



# 18641.00-Proposed Condition

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## Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	2.20	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.63	2
3	100-Year	Type II 24-hr		Default	24.00	1	6.11	2

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**Area Listing (all nodes)**

Area (acres)	CN	Description (subcatchment-numbers)
1.510	39	>75% Grass cover, Good, HSG A (DR-13, DR-14, DR-15, DR-17)
5.500	80	>75% Grass cover, Good, HSG D (DR-1, DR-2, DR-3, DR-4, DR-5, DR-6, DR-7, DR-8A, DR-8B, DR-9A, DR-9B)
6.870	98	Building A (DR-1)
2.549	98	Building B (DR-6)
3.030	98	Building C (DR-7)
1.413	98	Building D (DR-6)
16.900	95	Compacted Gravel (DR-3, DR-4)
0.200	92	Compacted Gravel (DR-9A)
26.618	95	Dense Graded Aggregate (DR-1, DR-2, DR-5, DR-6, DR-7, DR-9B)
0.970	96	Gravel surface, HSG D (DR-12)
1.100	98	Mill & Fill of Old Pavement (DR-14, DR-15)
0.600	98	New Pavement (DR-14, DR-15)
1.600	98	Parking (DR-8A)
1.200	98	Parking and Road (DR-9A)
0.450	98	Pavement (DR-13)
3.270	98	Rail (DR-3, DR-7)
0.140	98	Road Widening (DR-17)
1.240	98	Roadway (DR-17, DR-8B, DR-9B)
0.170	98	Substation (DR-9A)
24.230	79	Woods, Fair, HSG D (DR-10, DR-11, DR-12)
9.000	43	Woods/grass comb., Fair, HSG A (DR-16)
<b>108.560</b>	<b>86</b>	<b>TOTAL AREA</b>



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-1: Building A & Storage**

Runoff = 29.34 cfs @ 11.98 hrs, Volume= 1.592 af, Depth> 1.85"

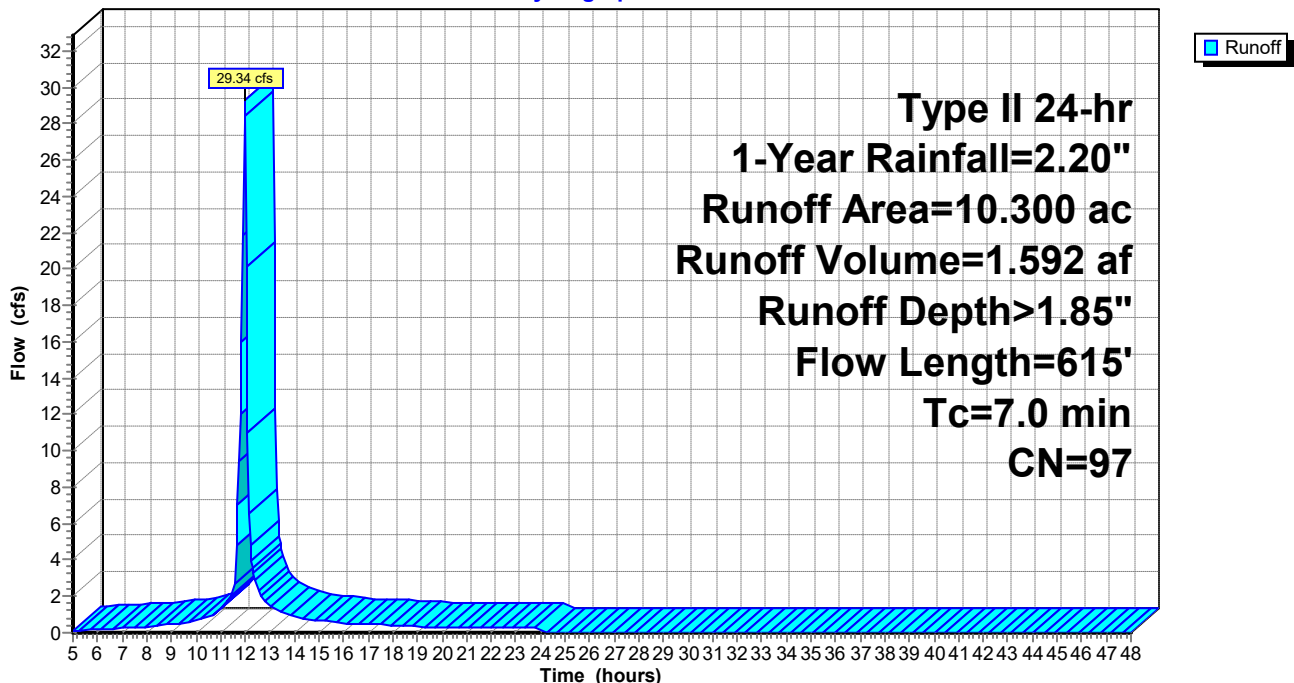
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 6.870	98	Building A
0.100	80	>75% Grass cover, Good, HSG D
* 3.330	95	Dense Graded Aggregate
10.300	97	Weighted Average
3.430		33.30% Pervious Area
6.870		66.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
3.1	300	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.6	215	0.0050	5.91	29.00	<b>Pipe Channel,</b> 30.0" Round Area= 4.9 sf Perim= 7.9' r= 0.63' n= 0.013
7.0	615	Total			

**Subcatchment DR-1: Building A & Storage**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-10: Undisturbed Area**

Runoff = 4.00 cfs @ 13.29 hrs, Volume= 1.061 af, Depth= 0.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

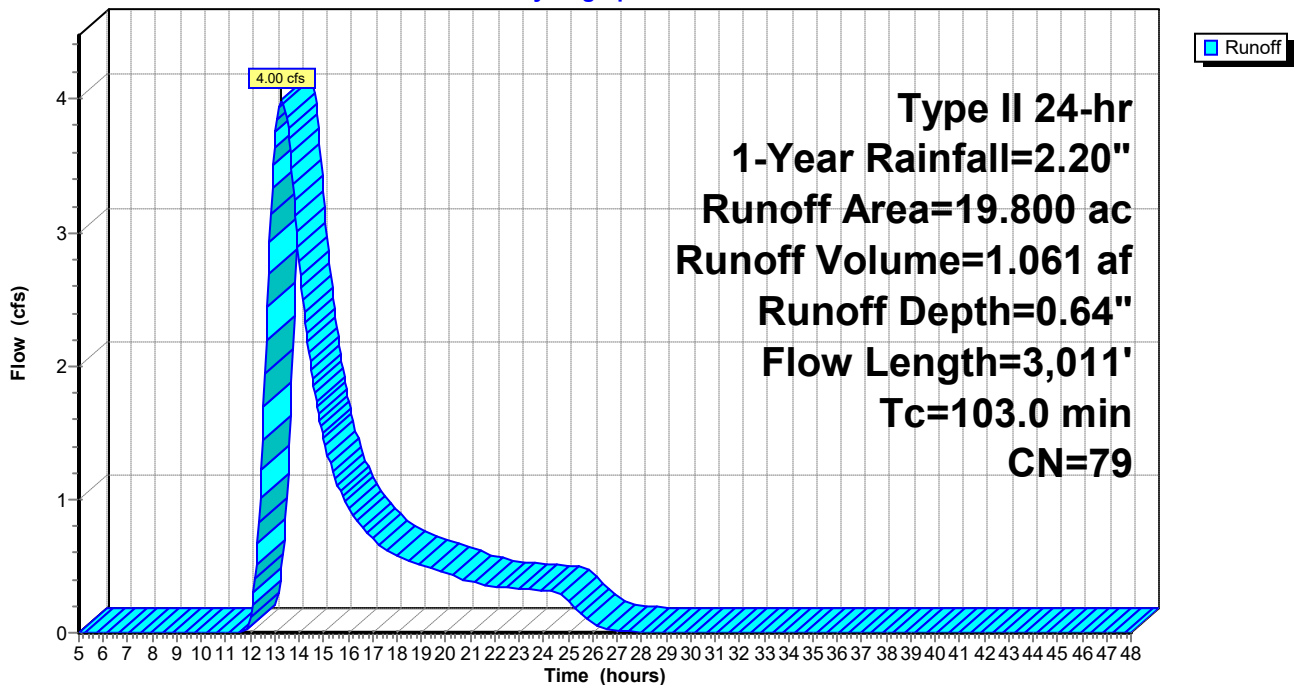
Area (ac)	CN	Description
19.800	79	Woods, Fair, HSG D
19.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	150	0.0800	0.13		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.40"
3.0	200	0.0500	1.12		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.6	250	0.2600	2.55		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
78.7	2,361	0.0100	0.50		<b>Shallow Concentrated Flow, Wetland Flow</b> Woodland Kv= 5.0 fps
0.0	50	0.0500	22.86	161.57	<b>Pipe Channel,</b> 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.012 Corrugated PP, smooth interior
103.0	3,011	Total			

**Subcatchment DR-10: Undisturbed Area**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-11: Hudson River Bank**

Runoff = 3.01 cfs @ 12.10 hrs, Volume= 0.214 af, Depth= 0.64"

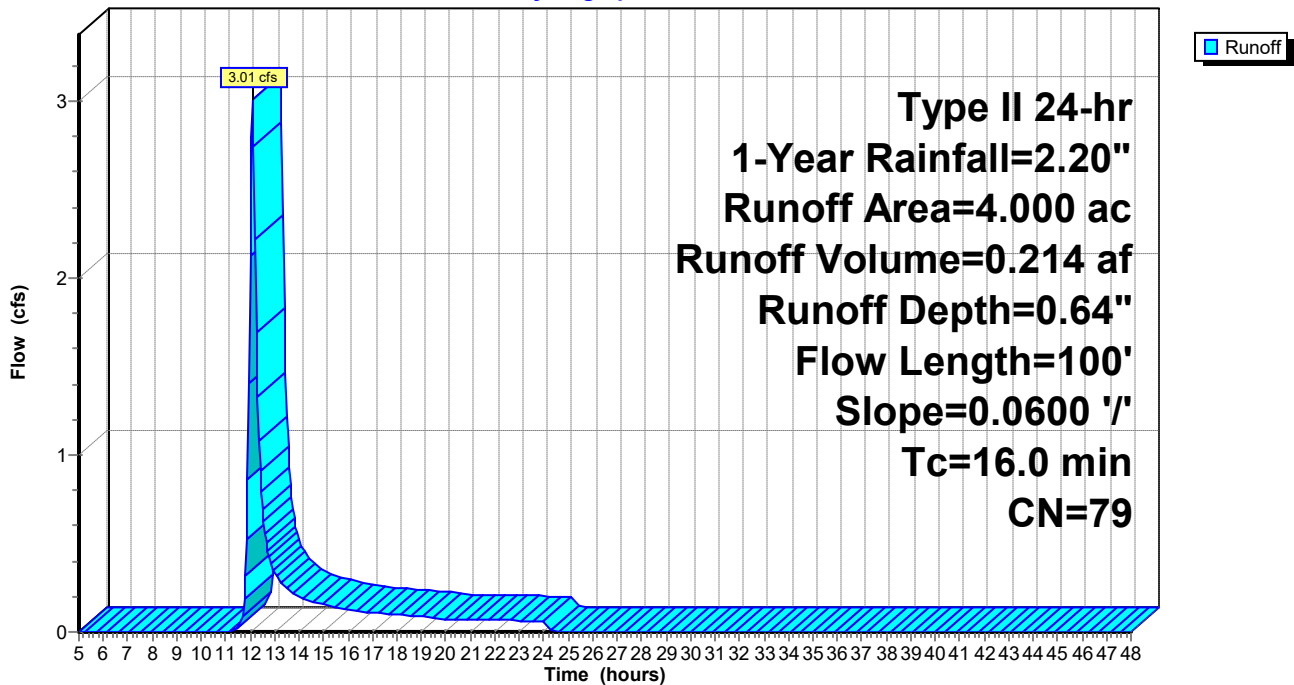
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
4.000	79	Woods, Fair, HSG D
4.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0600	0.10		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.40"

**Subcatchment DR-11: Hudson River Bank**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-12: Normans Kill Bank**

Runoff = 3.18 cfs @ 11.97 hrs, Volume= 0.156 af, Depth= 1.34"

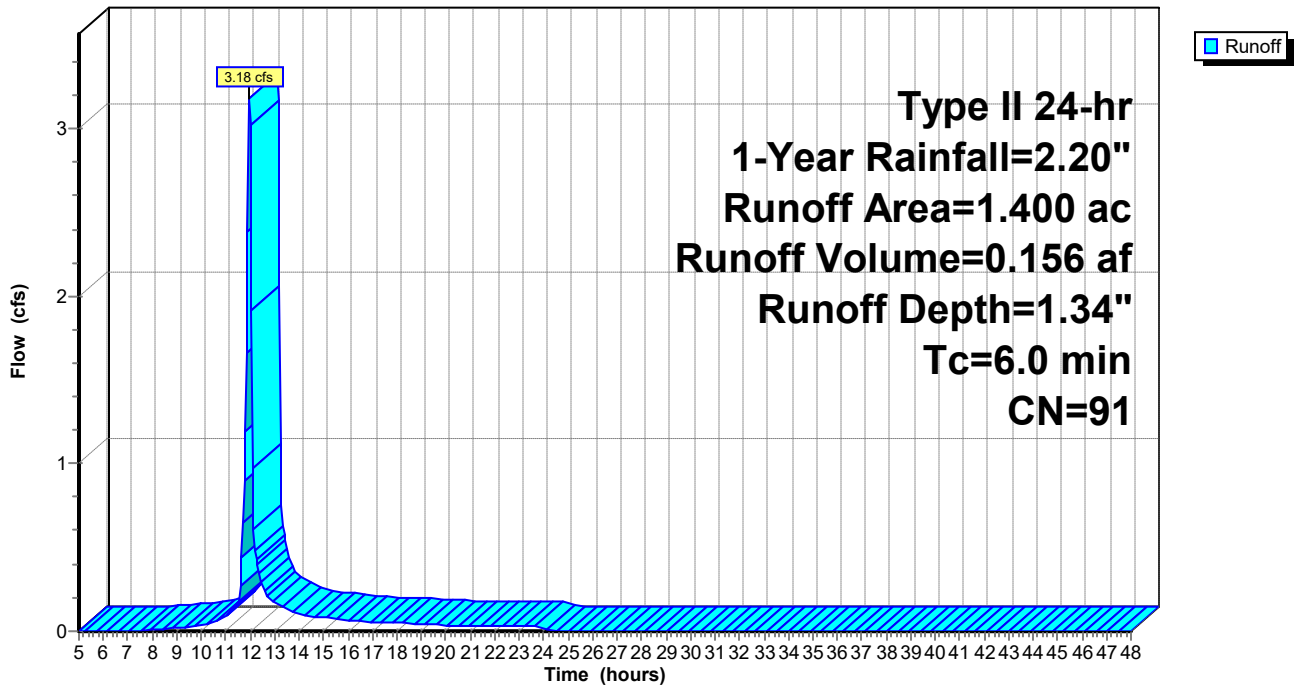
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.430	79	Woods, Fair, HSG D
0.970	96	Gravel surface, HSG D
1.400	91	Weighted Average
1.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-12: Normans Kill Bank**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-13: Roadway**

Runoff = 0.05 cfs @ 12.05 hrs, Volume= 0.012 af, Depth= 0.12"

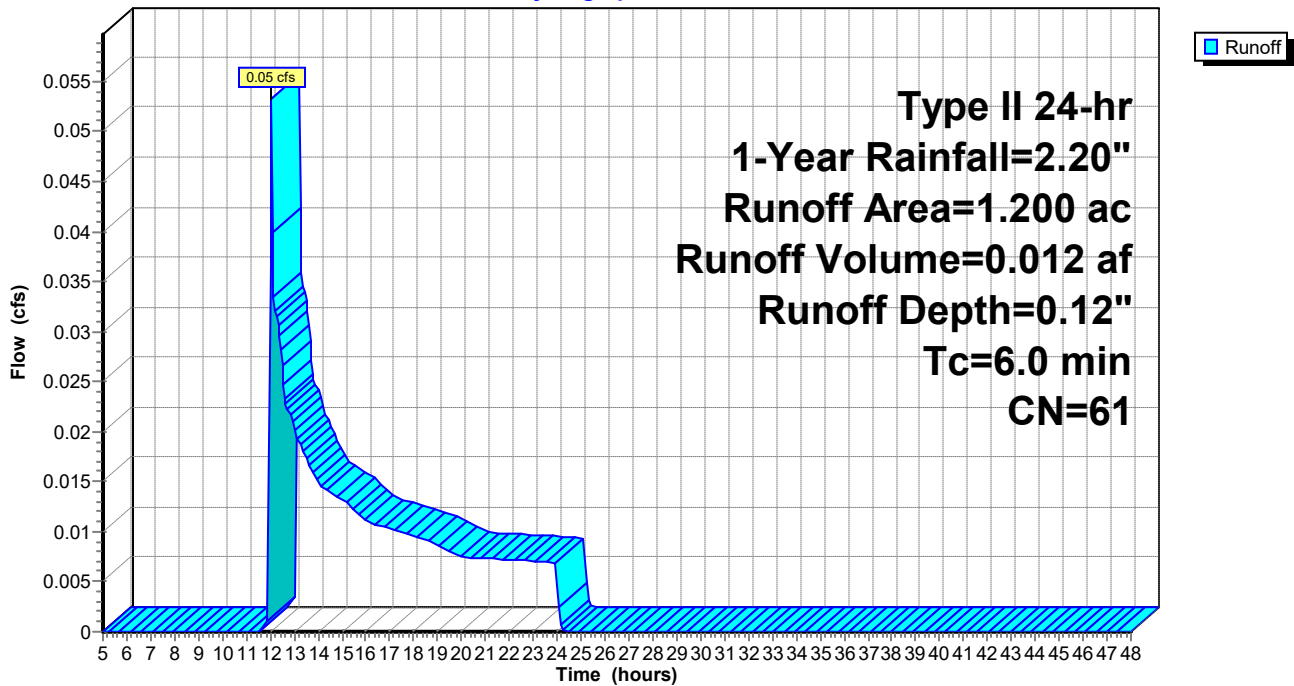
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 0.450	98	Pavement
0.750	39	>75% Grass cover, Good, HSG A
1.200	61	Weighted Average
0.750		62.50% Pervious Area
0.450		37.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-13: Roadway**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-14: Roadway**

Runoff = 0.84 cfs @ 11.99 hrs, Volume= 0.045 af, Depth= 0.41"

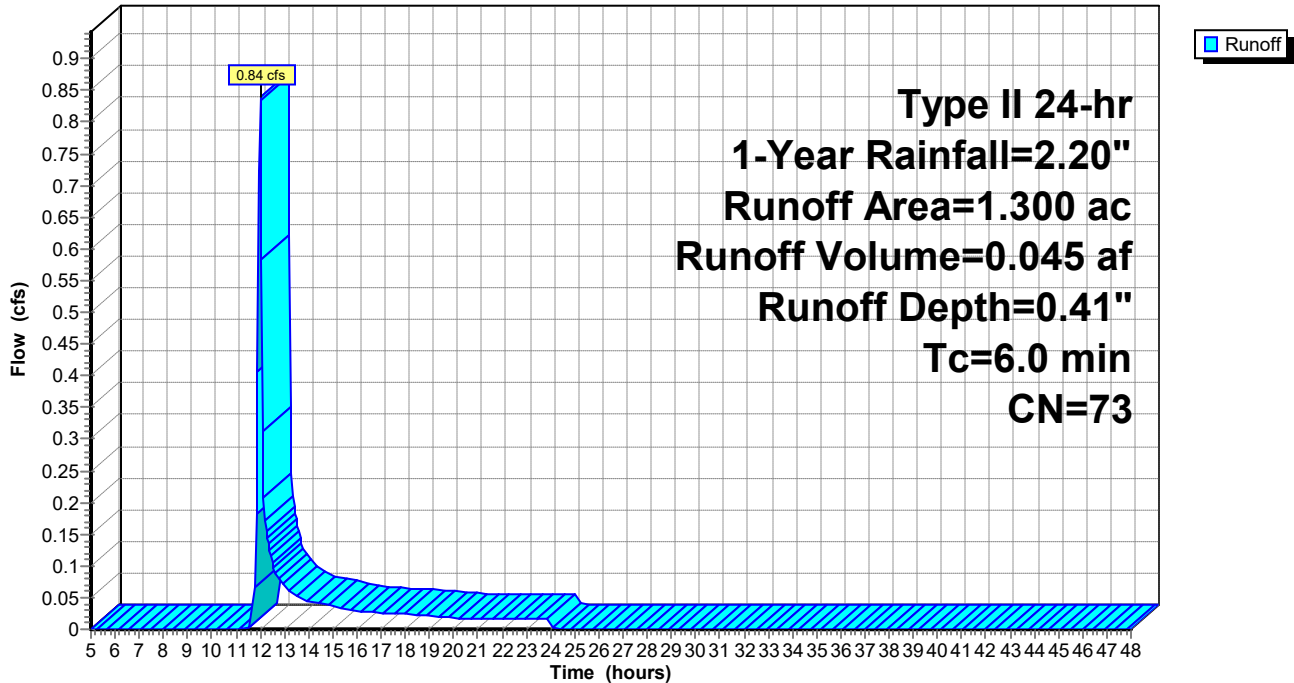
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 0.550	98	New Pavement
0.550	39	>75% Grass cover, Good, HSG A
* 0.200	98	Mill & Fill of Old Pavement
1.300	73	Weighted Average
0.550		42.31% Pervious Area
0.750		57.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-14: Roadway**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-15: Roadway**

Runoff = 2.72 cfs @ 11.96 hrs, Volume= 0.139 af, Depth> 1.67"

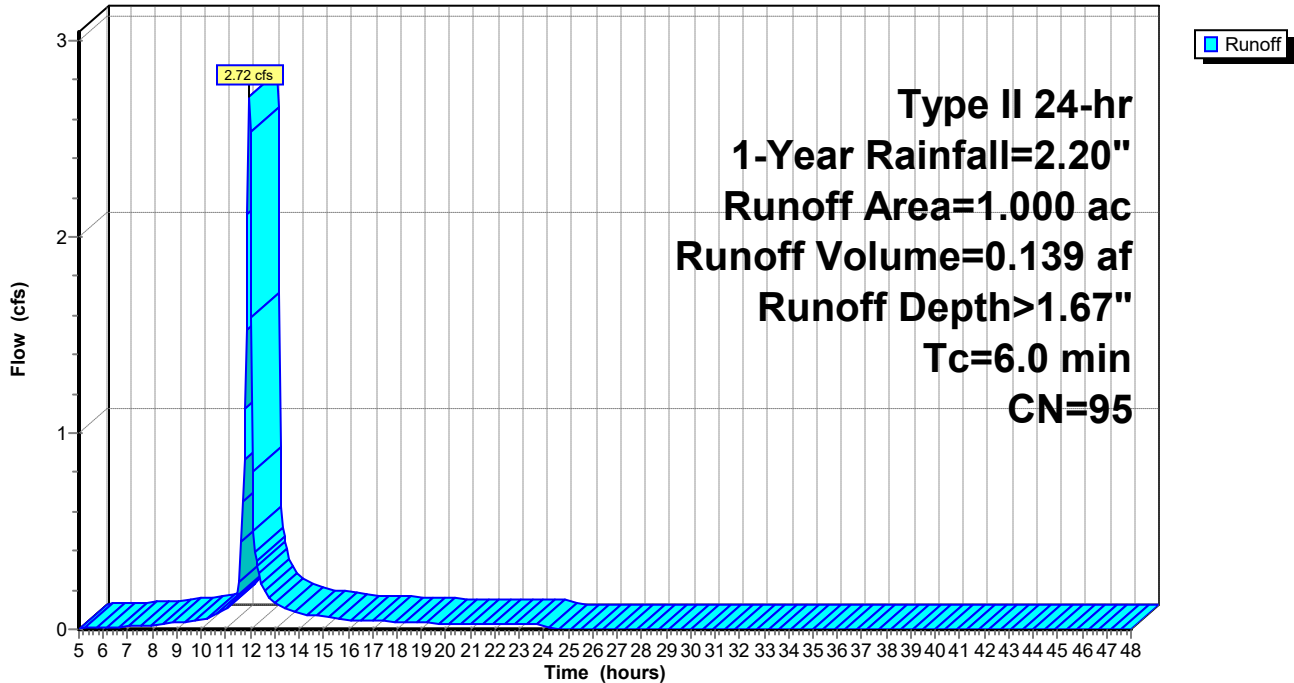
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 0.050	98	New Pavement
0.050	39	>75% Grass cover, Good, HSG A
* 0.900	98	Mill & Fill of Old Pavement
1.000	95	Weighted Average
0.050		5.00% Pervious Area
0.950		95.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-15: Roadway**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-16: Undisturbed Area**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

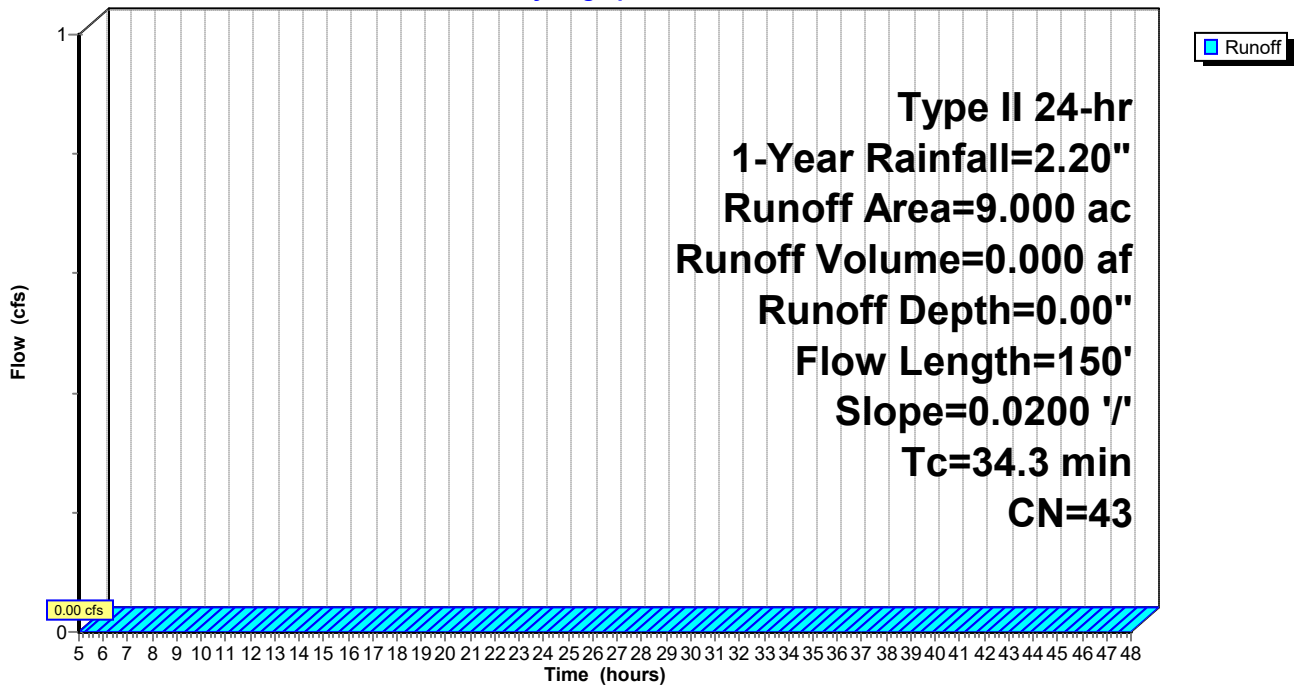
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
9.000	43	Woods/grass comb., Fair, HSG A
9.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.3	150	0.0200	0.07		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.40"

**Subcatchment DR-16: Undisturbed Area**

Hydrograph





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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-17: Roadway**

Runoff = 1.32 cfs @ 11.97 hrs, Volume= 0.064 af, Depth= 1.00"

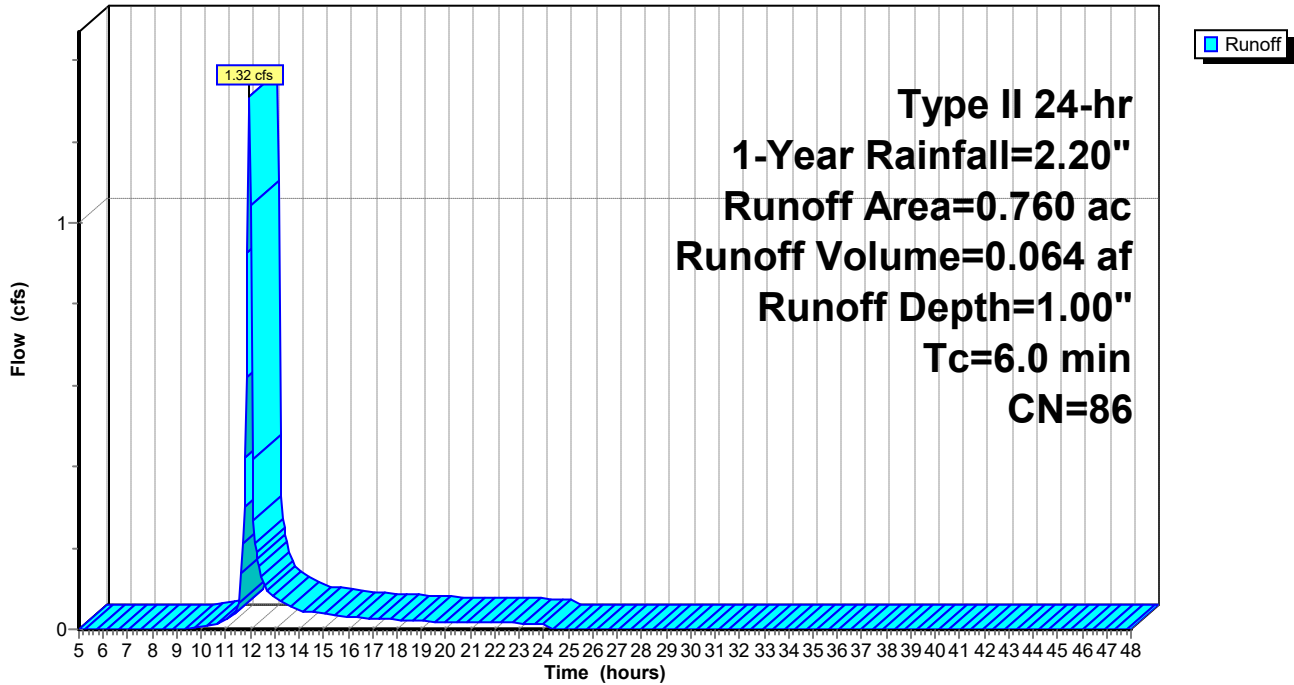
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 0.140	98	Road Widening
* 0.460	98	Roadway
0.160	39	>75% Grass cover, Good, HSG A
0.760	86	Weighted Average
0.160		21.05% Pervious Area
0.600		78.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-17: Roadway**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-2: Storage**

Runoff = 13.32 cfs @ 12.00 hrs, Volume= 0.726 af, Depth> 1.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

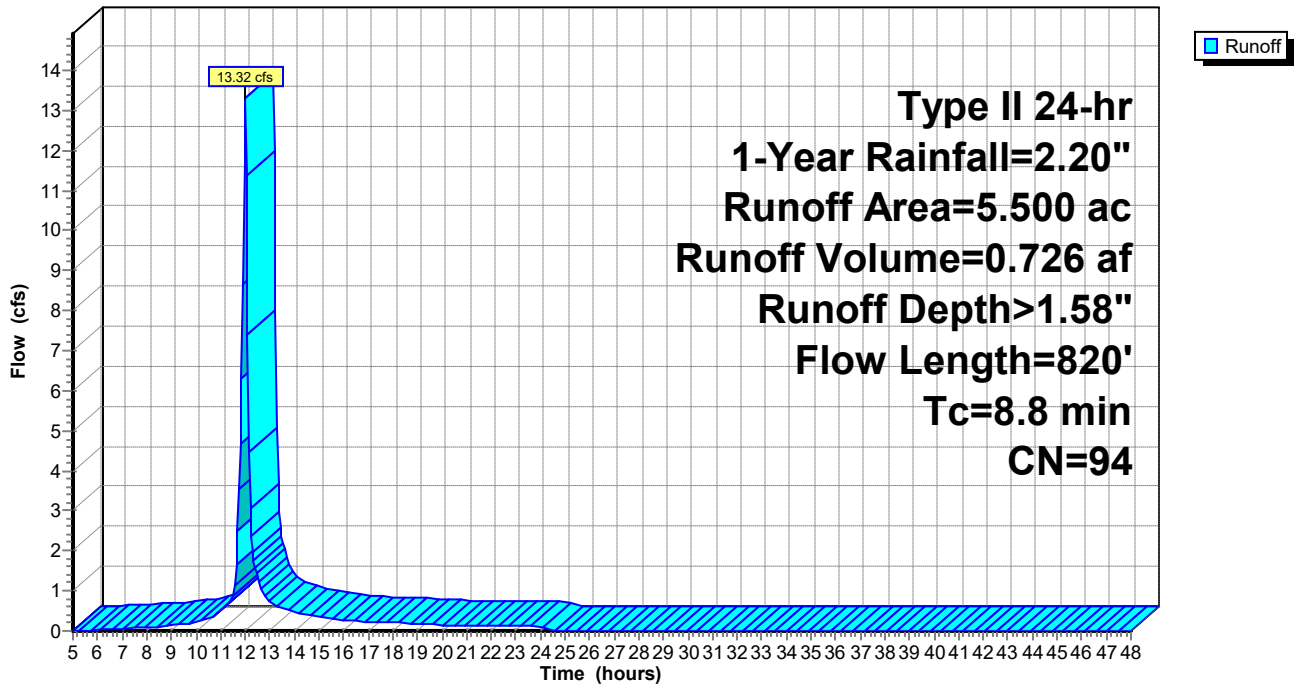
Area (ac)	CN	Description
* 5.300	95	Dense Graded Aggregate
0.200	80	>75% Grass cover, Good, HSG D
5.500	94	Weighted Average
5.500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
4.9	470	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.6	250	0.0050	6.67	47.16	<b>Pipe Channel,</b> 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.013
8.8	820	Total			

**Subcatchment DR-2: Storage**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-3: Rail & Storage**

Runoff = 27.00 cfs @ 12.01 hrs, Volume= 1.533 af, Depth> 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

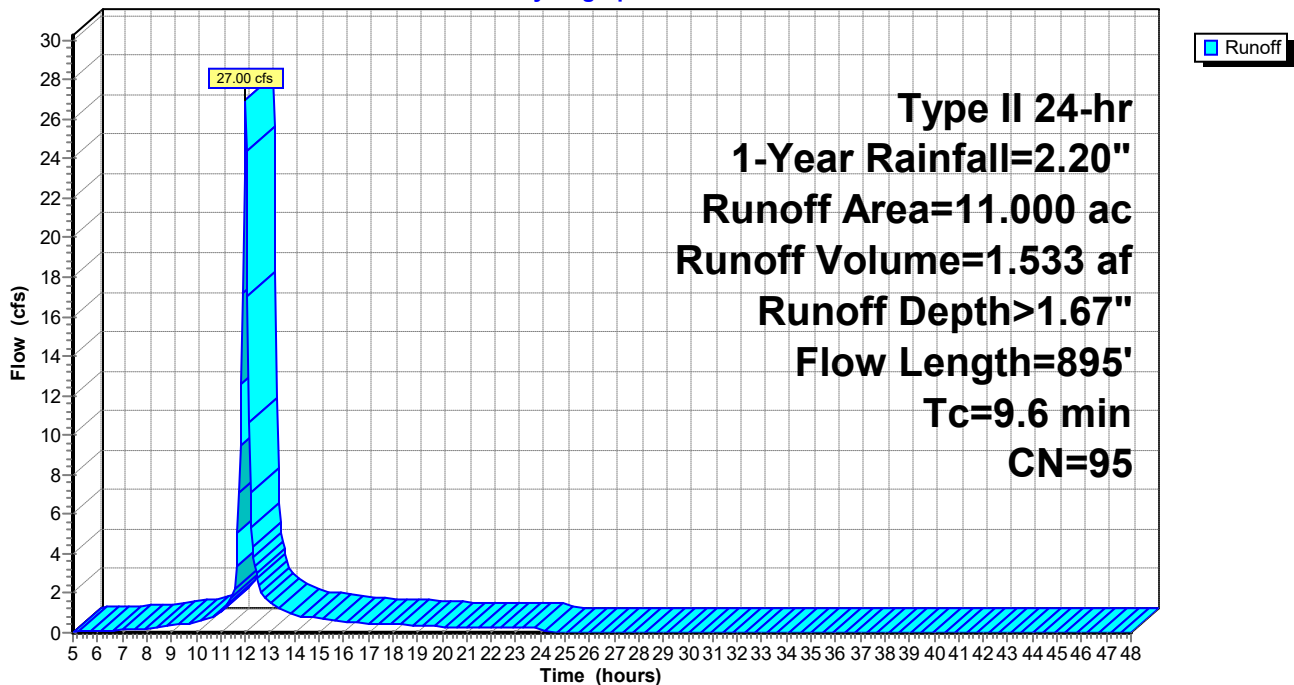
Area (ac)	CN	Description
* 8.300	95	Compacted Gravel
0.400	80	>75% Grass cover, Good, HSG D
* 2.300	98	Rail
11.000	95	Weighted Average
8.700		79.09% Pervious Area
2.300		20.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
5.4	525	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.9	270	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
9.6	895	Total			

**Subcatchment DR-3: Rail & Storage**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-4: Storage**

Runoff = 22.13 cfs @ 11.99 hrs, Volume= 1.175 af, Depth> 1.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

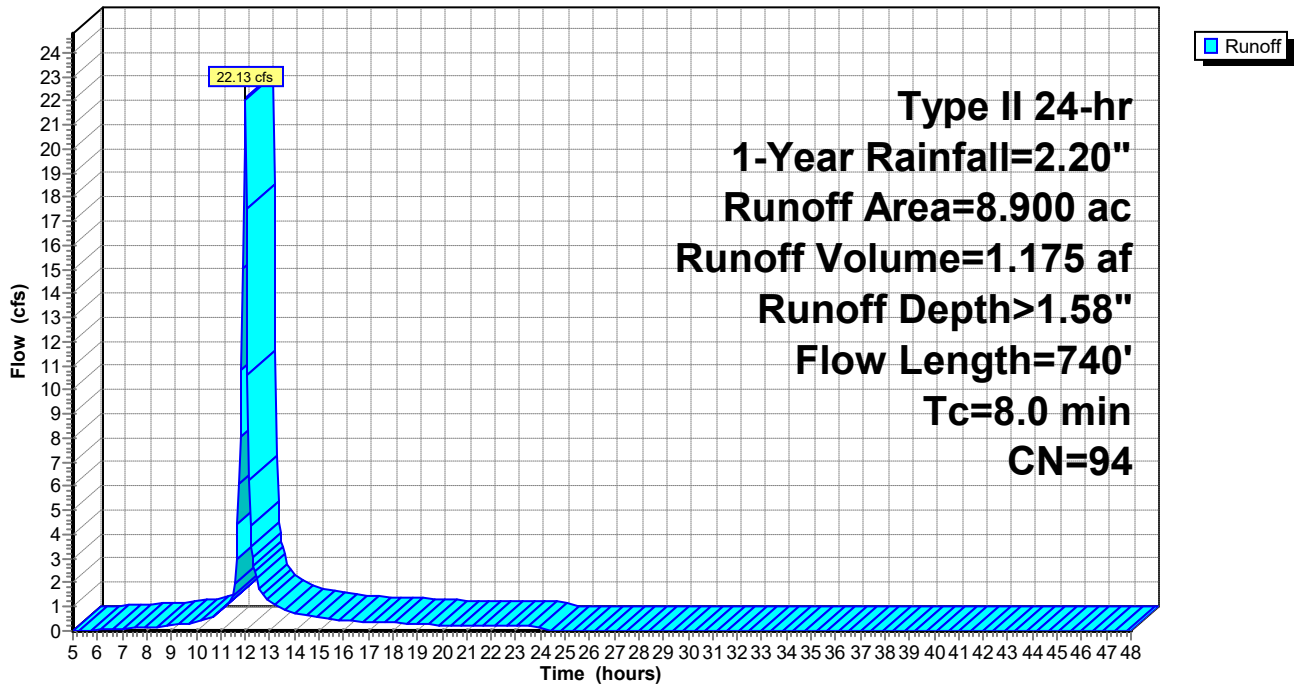
Area (ac)	CN	Description
* 8.600	95	Compacted Gravel
0.300	80	>75% Grass cover, Good, HSG D
8.900	94	Weighted Average
8.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
4.1	400	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.6	240	0.0050	6.67	47.16	<b>Pipe Channel,</b> 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.013 Corrugated PE, smooth interior
8.0	740	Total			

**Subcatchment DR-4: Storage**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-5: Storage**

Runoff = 13.09 cfs @ 11.99 hrs, Volume= 0.687 af, Depth> 1.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

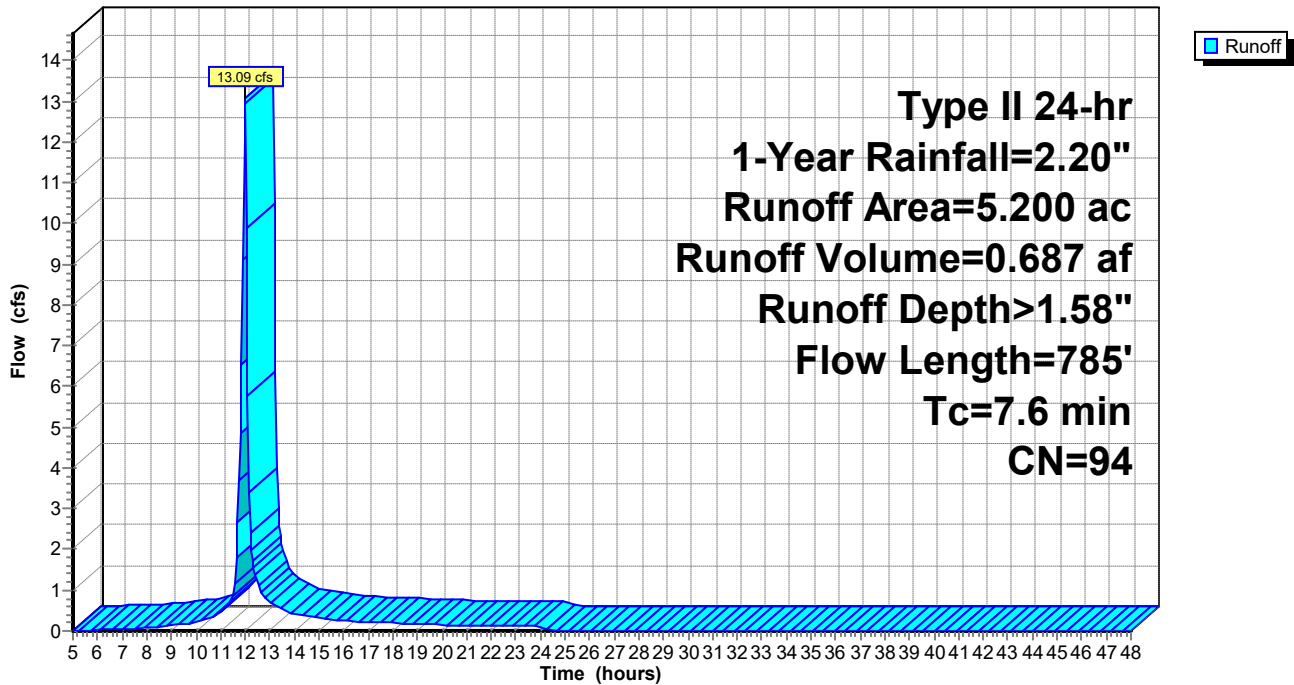
Area (ac)	CN	Description
* 4.900	95	Dense Graded Aggregate
0.300	80	>75% Grass cover, Good, HSG D
5.200	94	Weighted Average
5.200		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
3.0	285	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
1.3	400	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
7.6	785	Total			

**Subcatchment DR-5: Storage**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-6: Buldings B & D**

Runoff = 30.91 cfs @ 12.00 hrs, Volume= 1.734 af, Depth> 1.76"

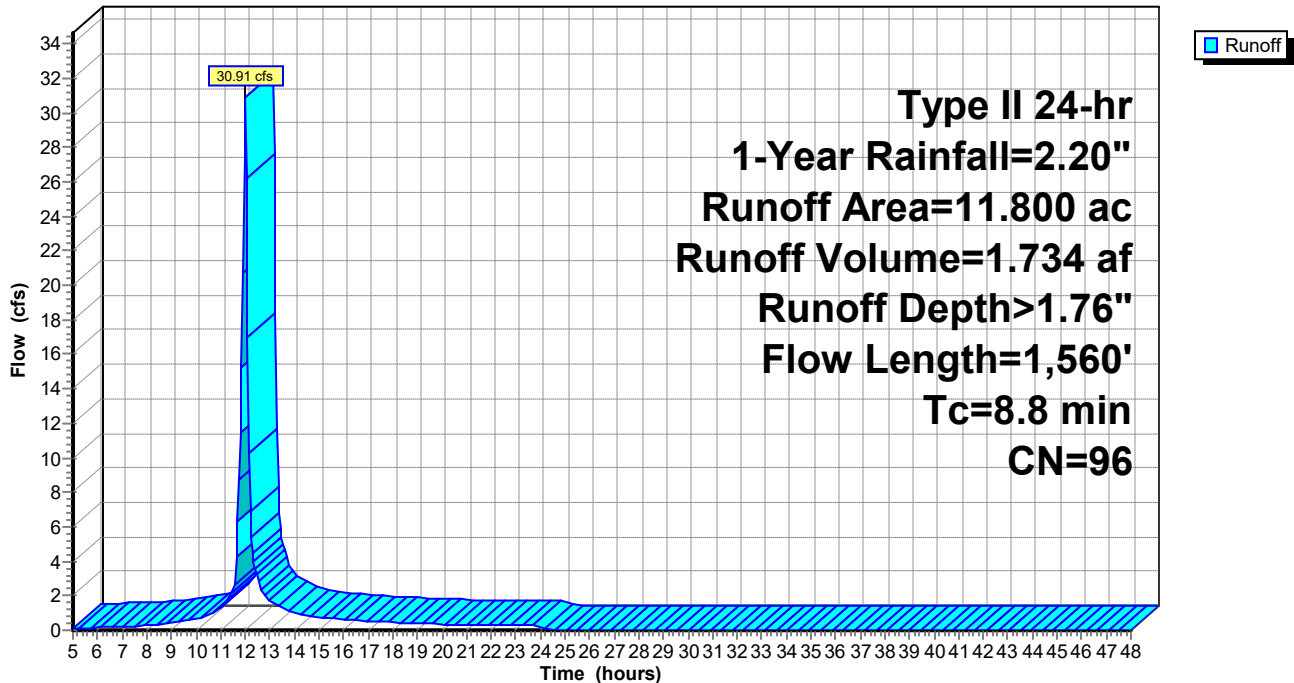
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 2.549	98	Building B
* 1.413	98	Building D
0.200	80	>75% Grass cover, Good, HSG D
* 7.638	95	Dense Graded Aggregate
11.800	96	Weighted Average
7.838		66.42% Pervious Area
3.962		33.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
1.0	100	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
4.5	1,360	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50 n= 0.013
8.8	1,560	Total			

**Subcatchment DR-6: Buldings B & D**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-7: Building C & Rail**

Runoff = 22.09 cfs @ 12.01 hrs, Volume= 1.278 af, Depth> 1.76"

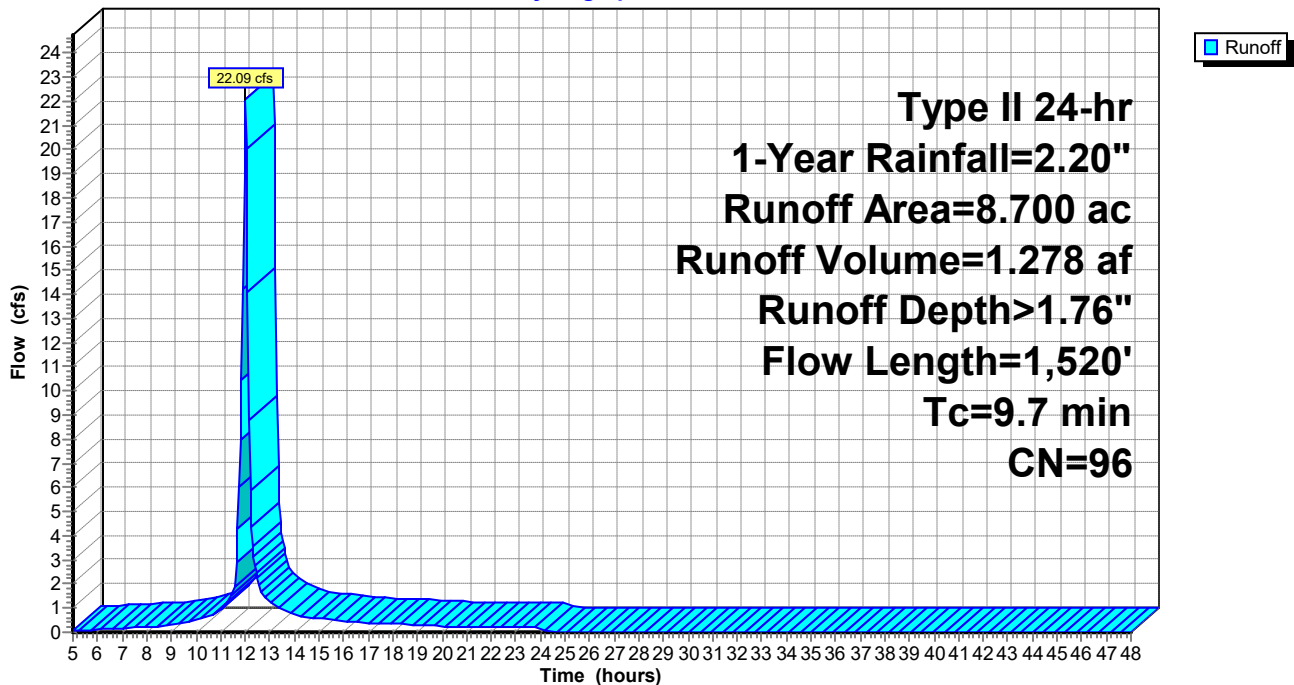
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 3.030	98	Building C
* 0.970	98	Rail
* 4.400	95	Dense Graded Aggregate
0.300	80	>75% Grass cover, Good, HSG D
8.700	96	Weighted Average
4.700		54.02% Pervious Area
4.000		45.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
2.6	250	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
3.8	1,170	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50 n= 0.013
9.7	1,520	Total			

**Subcatchment DR-7: Building C & Rail**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-8A: Parking**

Runoff = 5.17 cfs @ 11.96 hrs, Volume= 0.265 af, Depth> 1.67"

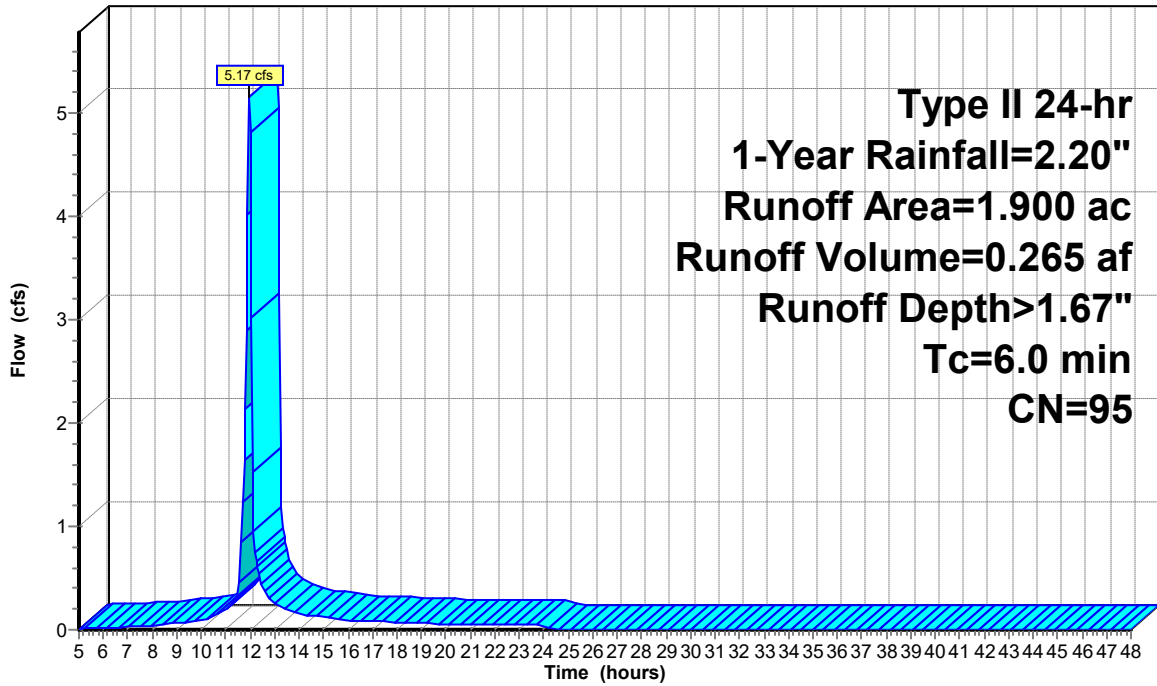
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 1.600	98	Parking
0.300	80	>75% Grass cover, Good, HSG D
1.900	95	Weighted Average
0.300		15.79% Pervious Area
1.600		84.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-8A: Parking**

Hydrograph



Runoff



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-8B: Roadway & Pond**

Runoff = 1.65 cfs @ 11.98 hrs, Volume= 0.079 af, Depth= 0.94"

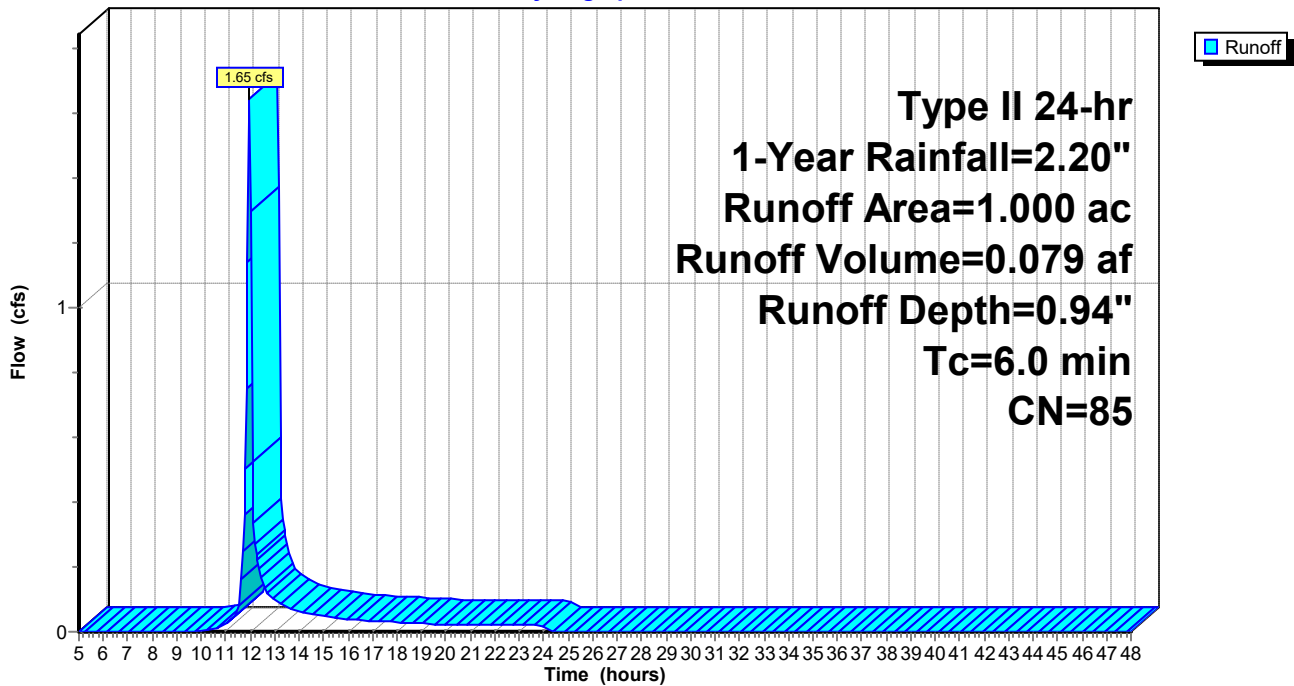
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 0.300	98	Roadway
0.700	80	>75% Grass cover, Good, HSG D
1.000	85	Weighted Average
0.700		70.00% Pervious Area
0.300		30.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-8B: Roadway & Pond**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-9A: Parking & Substation**

Runoff = 3.97 cfs @ 12.04 hrs, Volume= 0.251 af, Depth> 1.67"

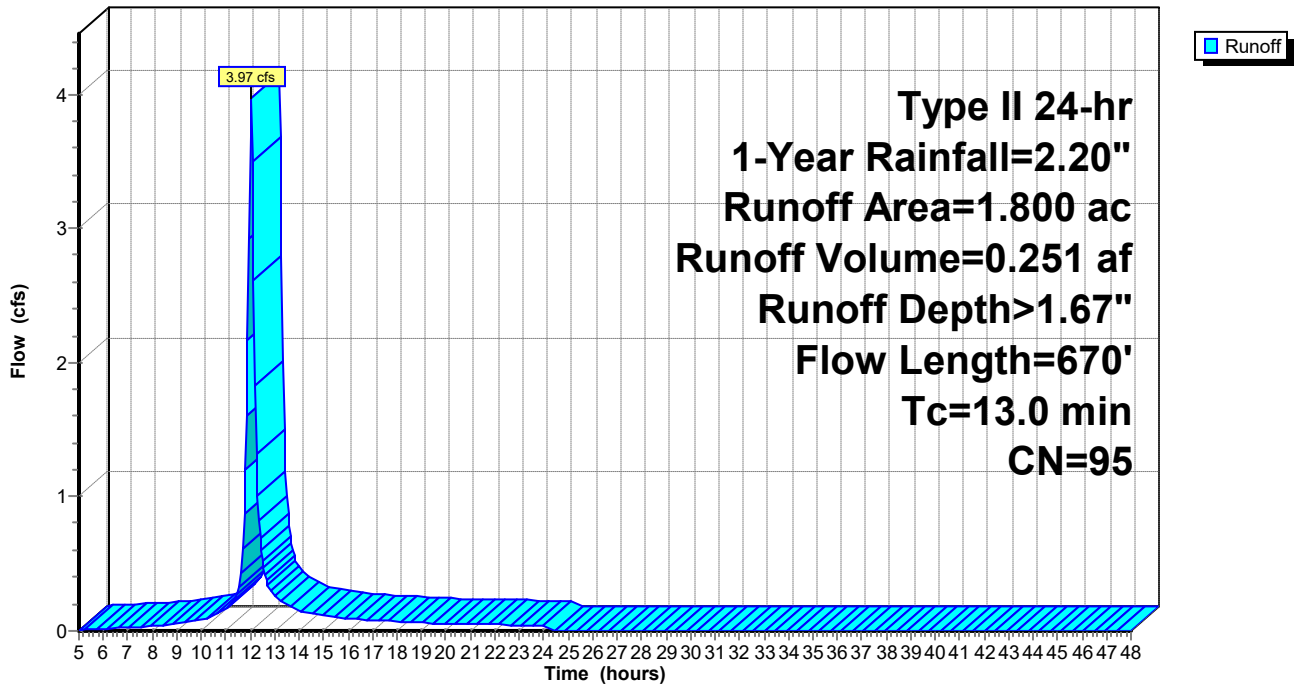
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.230	80	>75% Grass cover, Good, HSG D
* 0.200	92	Compacted Gravel
* 1.200	98	Parking and Road
* 0.170	98	Substation
1.800	95	Weighted Average
0.430		23.89% Pervious Area
1.370		76.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0200	1.19		<b>Sheet Flow, Parking Lot Runoff</b> Smooth surfaces n= 0.011 P2= 2.40"
11.6	570	0.0030	0.82		<b>Shallow Concentrated Flow, Grass Lined Ditch to Pond</b> Grassed Waterway Kv= 15.0 fps
13.0	670	Total			

**Subcatchment DR-9A: Parking & Substation**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Subcatchment DR-9B: Roadway**

Runoff = 7.13 cfs @ 11.96 hrs, Volume= 0.334 af, Depth= 1.00"

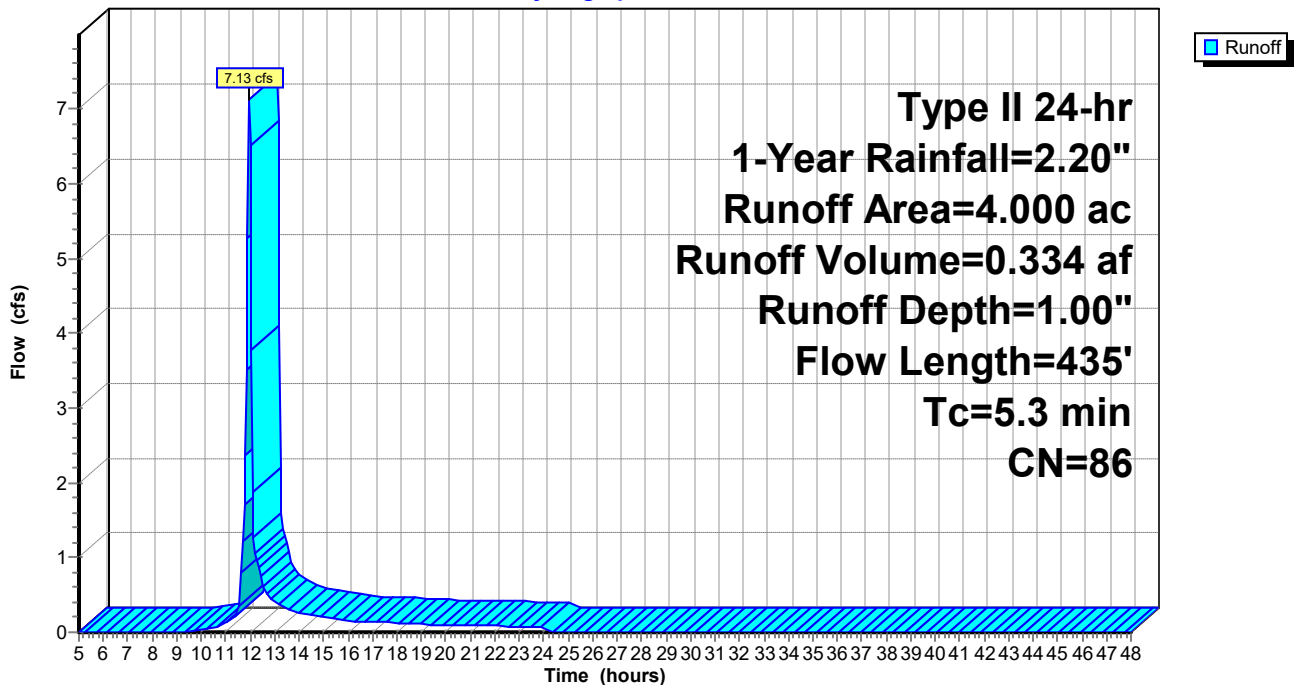
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 1.050	95	Dense Graded Aggregate
* 0.480	98	Roadway
2.470	80	>75% Grass cover, Good, HSG D
4.000	86	Weighted Average
3.520		88.00% Pervious Area
0.480		12.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	100	0.0250	0.46		<b>Sheet Flow, Dense Graded Aggregate Yard</b> n= 0.040 P2= 2.40"
1.3	230	0.0100	3.07	9.20	<b>Channel Flow, Grass lined ditch</b> Area= 3.0 sf Perim= 4.0' r= 0.75' n= 0.040 Earth, cobble bottom, clean sides
0.4	105	0.0050	4.20	7.43	<b>Pipe Channel, driveway culvert</b> 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
5.3	435	Total			

**Subcatchment DR-9B: Roadway**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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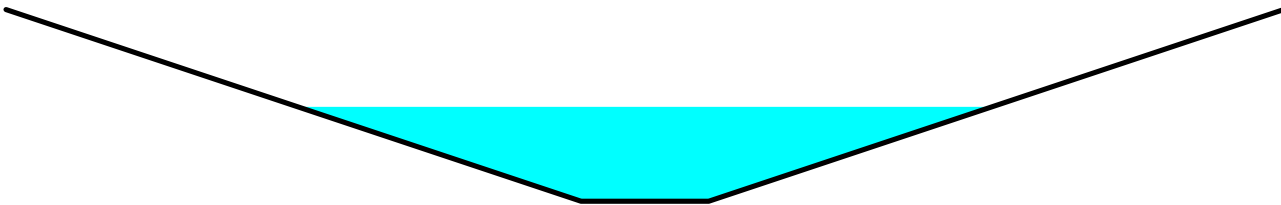
**Summary for Reach 1R: Swale**

Inflow Area = 1.900 ac, 84.21% Impervious, Inflow Depth > 1.67" for 1-Year event  
Inflow = 5.17 cfs @ 11.96 hrs, Volume= 0.265 af  
Outflow = 4.10 cfs @ 12.13 hrs, Volume= 0.265 af, Atten= 21%, Lag= 9.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 1.75 fps, Min. Travel Time= 6.6 min  
Avg. Velocity = 0.50 fps, Avg. Travel Time= 22.9 min

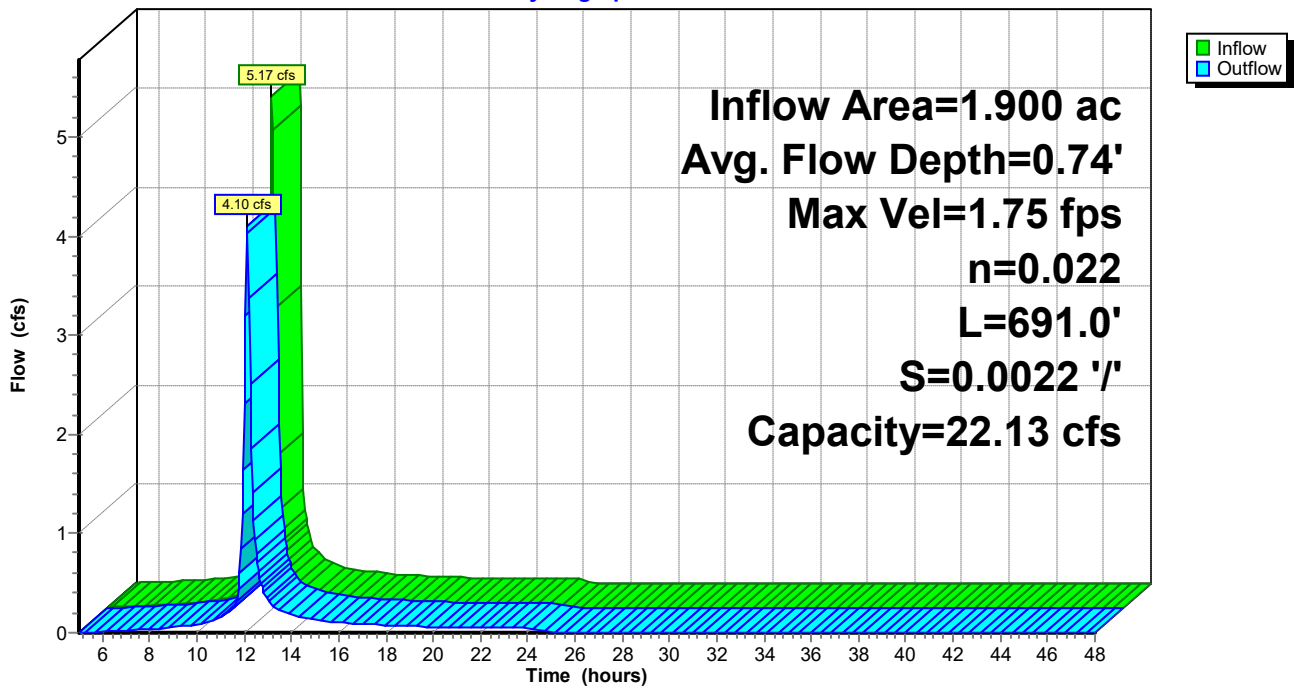
Peak Storage= 1,638 cf @ 12.02 hrs  
Average Depth at Peak Storage= 0.74' , Surface Width= 5.43'  
Bank-Full Depth= 1.50' Flow Area= 8.3 sf, Capacity= 22.13 cfs

1.00' x 1.50' deep channel, n= 0.022 Earth, clean & straight  
Side Slope Z-value= 3.0 '/' Top Width= 10.00'  
Length= 691.0' Slope= 0.0022 '/'  
Inlet Invert= 15.50', Outlet Invert= 14.00'



**Reach 1R: Swale**

**Hydrograph**



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Reach 1W: Wetland #1**

Inflow Area = 28.500 ac, 13.16% Impervious, Inflow Depth > 0.83" for 1-Year event  
 Inflow = 4.78 cfs @ 13.30 hrs, Volume= 1.974 af  
 Outflow = 1.61 cfs @ 21.41 hrs, Volume= 1.842 af, Atten= 66%, Lag= 486.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.05 fps, Min. Travel Time= 305.9 min  
 Avg. Velocity = 0.03 fps, Avg. Travel Time= 567.4 min

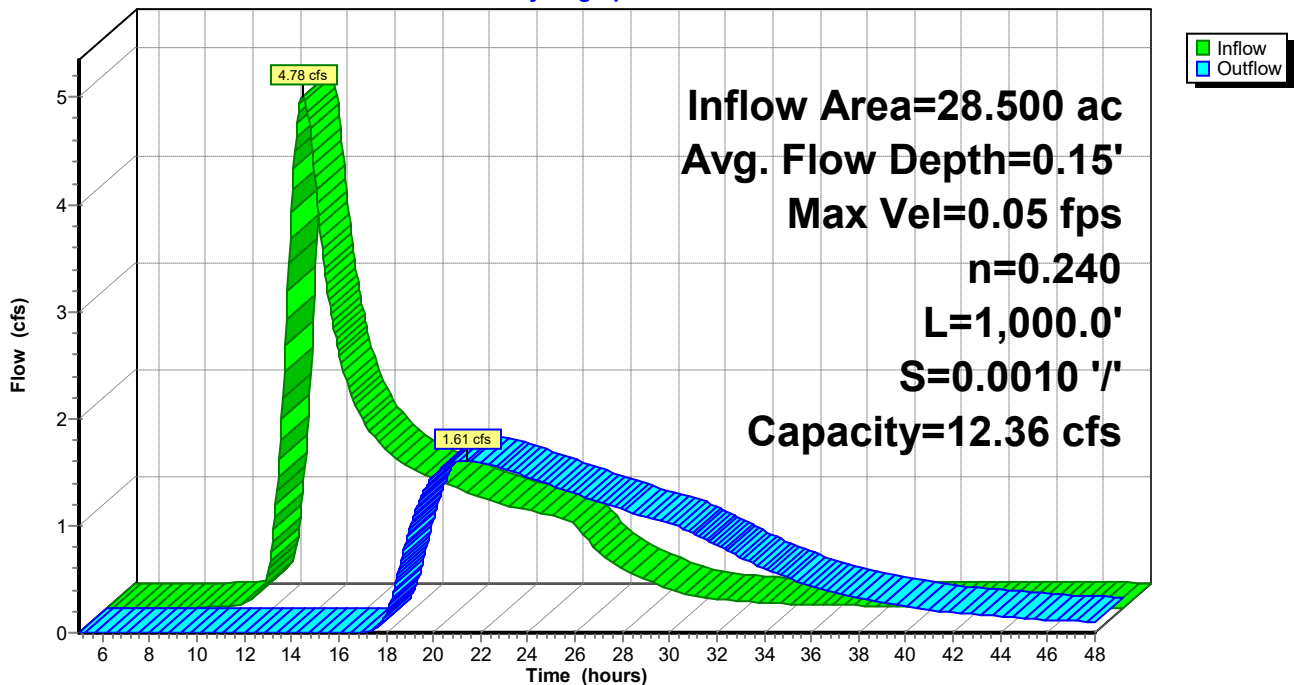
Peak Storage= 29,487 cf @ 16.31 hrs  
 Average Depth at Peak Storage= 0.15' , Surface Width= 200.88'  
 Bank-Full Depth= 0.50' Flow Area= 100.8 sf, Capacity= 12.36 cfs

200.00' x 0.50' deep channel, n= 0.240  
 Side Slope Z-value= 3.0 '/' Top Width= 203.00'  
 Length= 1,000.0' Slope= 0.0010 '/'  
 Inlet Invert= 6.00', Outlet Invert= 5.00'



**Reach 1W: Wetland #1**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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## Summary for Reach 2R: Overflow

Inflow Area = 5.800 ac, 31.90% Impervious, Inflow Depth > 1.19" for 1-Year event  
Inflow = 0.48 cfs @ 13.63 hrs, Volume= 0.577 af  
Outflow = 0.48 cfs @ 13.65 hrs, Volume= 0.577 af, Atten= 0%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 1.22 fps, Min. Travel Time= 0.7 min  
Avg. Velocity = 1.22 fps, Avg. Travel Time= 0.7 min

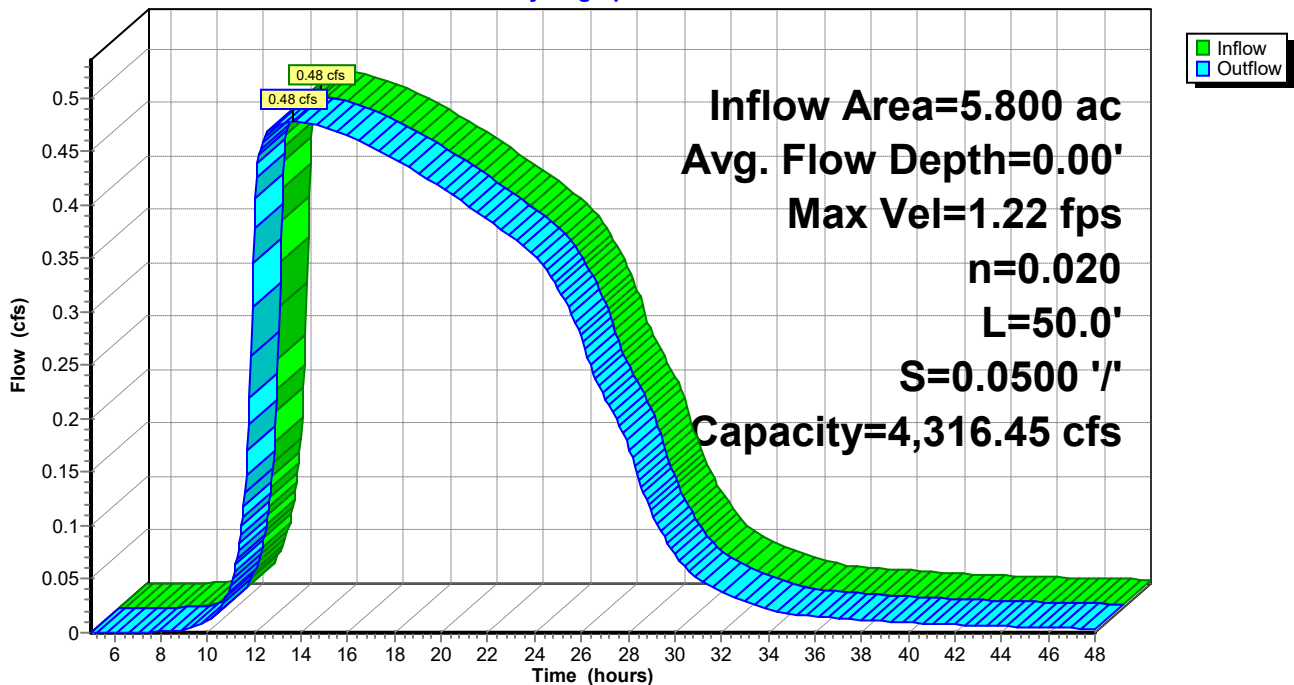
Peak Storage= 20 cf @ 13.64 hrs  
Average Depth at Peak Storage= 0.00' , Surface Width= 80.03'  
Bank-Full Depth= 2.00' Flow Area= 172.0 sf, Capacity= 4,316.45 cfs

80.00' x 2.00' deep channel, n= 0.020 Corrugated PE, corrugated interior  
Side Slope Z-value= 3.0 ' / ' Top Width= 92.00'  
Length= 50.0' Slope= 0.0500 ' / '  
Inlet Invert= 16.50', Outlet Invert= 14.00'



## Reach 2R: Overflow

### Hydrograph



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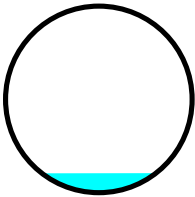
## Summary for Reach 3R: Outlet Pipe

Inflow Area = 28.500 ac, 13.16% Impervious, Inflow Depth > 0.78" for 1-Year event  
Inflow = 1.61 cfs @ 21.41 hrs, Volume= 1.842 af  
Outflow = 1.61 cfs @ 21.42 hrs, Volume= 1.842 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 3.34 fps, Min. Travel Time= 0.3 min  
Avg. Velocity = 2.28 fps, Avg. Travel Time= 0.5 min

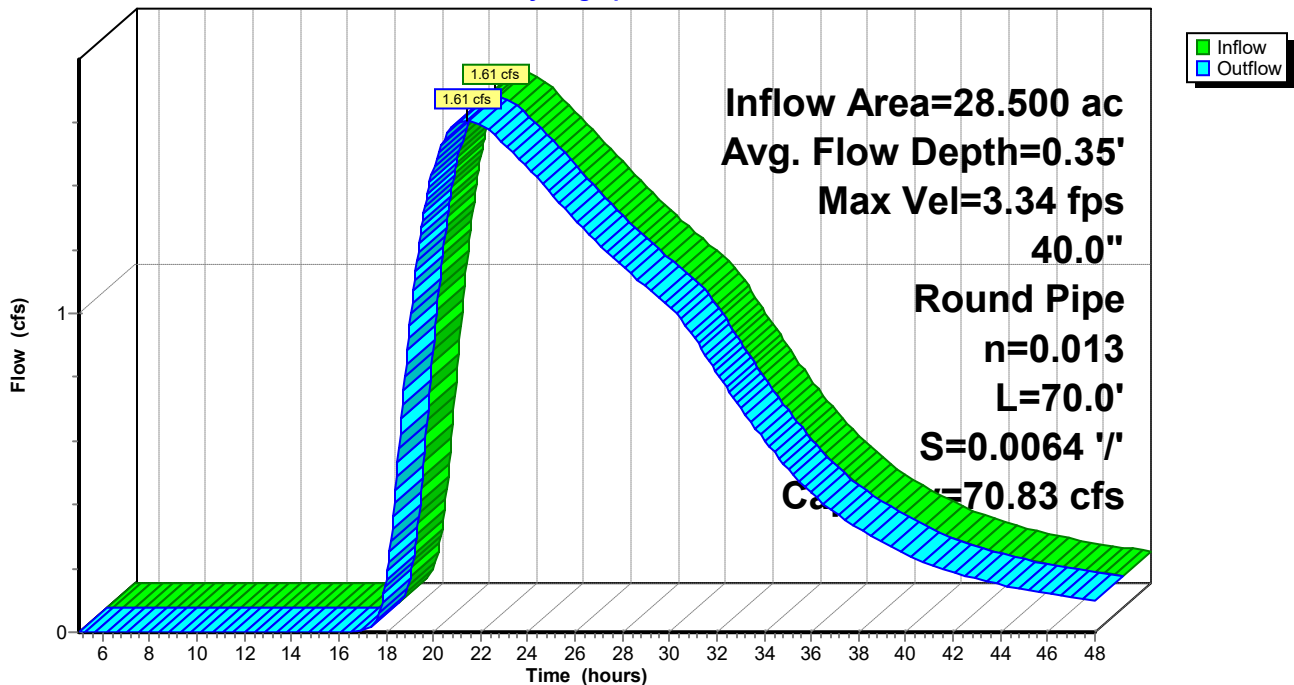
Peak Storage= 34 cf @ 21.41 hrs  
Average Depth at Peak Storage= 0.35', Surface Width= 2.03'  
Bank-Full Depth= 3.33' Flow Area= 8.7 sf, Capacity= 70.83 cfs

40.0" Round Pipe  
n= 0.013 Corrugated PE, smooth interior  
Length= 70.0' Slope= 0.0064 '/'  
Inlet Invert= 4.25', Outlet Invert= 3.80'



## Reach 3R: Outlet Pipe

Hydrograph



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**Summary for Reach 4R: Overflow**

Inflow Area = 1.000 ac, 95.00% Impervious, Inflow Depth > 1.67" for 1-Year event  
 Inflow = 2.65 cfs @ 11.99 hrs, Volume= 0.139 af  
 Outflow = 2.56 cfs @ 12.00 hrs, Volume= 0.139 af, Atten= 3%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 2.29 fps, Min. Travel Time= 0.7 min  
 Avg. Velocity = 0.58 fps, Avg. Travel Time= 2.9 min

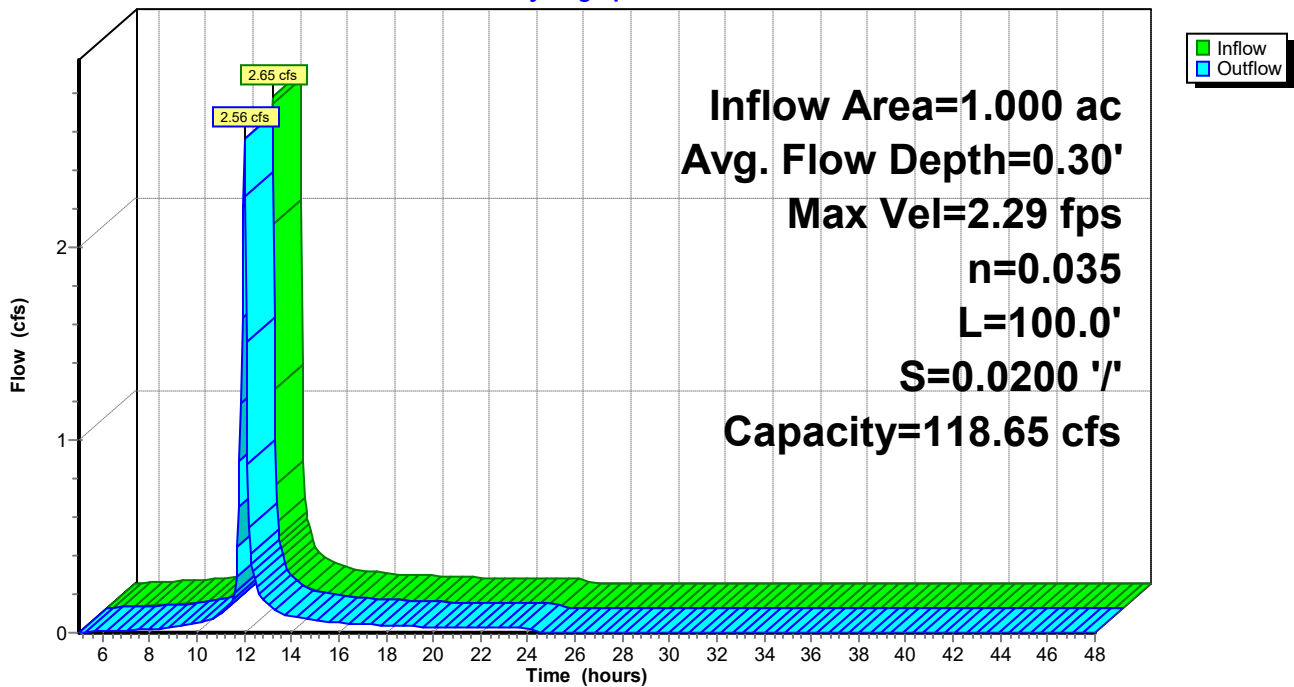
Peak Storage= 115 cf @ 11.99 hrs  
 Average Depth at Peak Storage= 0.30' , Surface Width= 4.77'  
 Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 118.65 cfs

3.00' x 2.00' deep channel, n= 0.035 Riprap, 6-inch  
 Side Slope Z-value= 3.0 '/' Top Width= 15.00'  
 Length= 100.0' Slope= 0.0200 '/'  
 Inlet Invert= 12.00', Outlet Invert= 10.00'



**Reach 4R: Overflow**

Hydrograph





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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Reach 5R: Overflow**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 0.00" for 1-Year event  
 Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af  
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min  
 Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

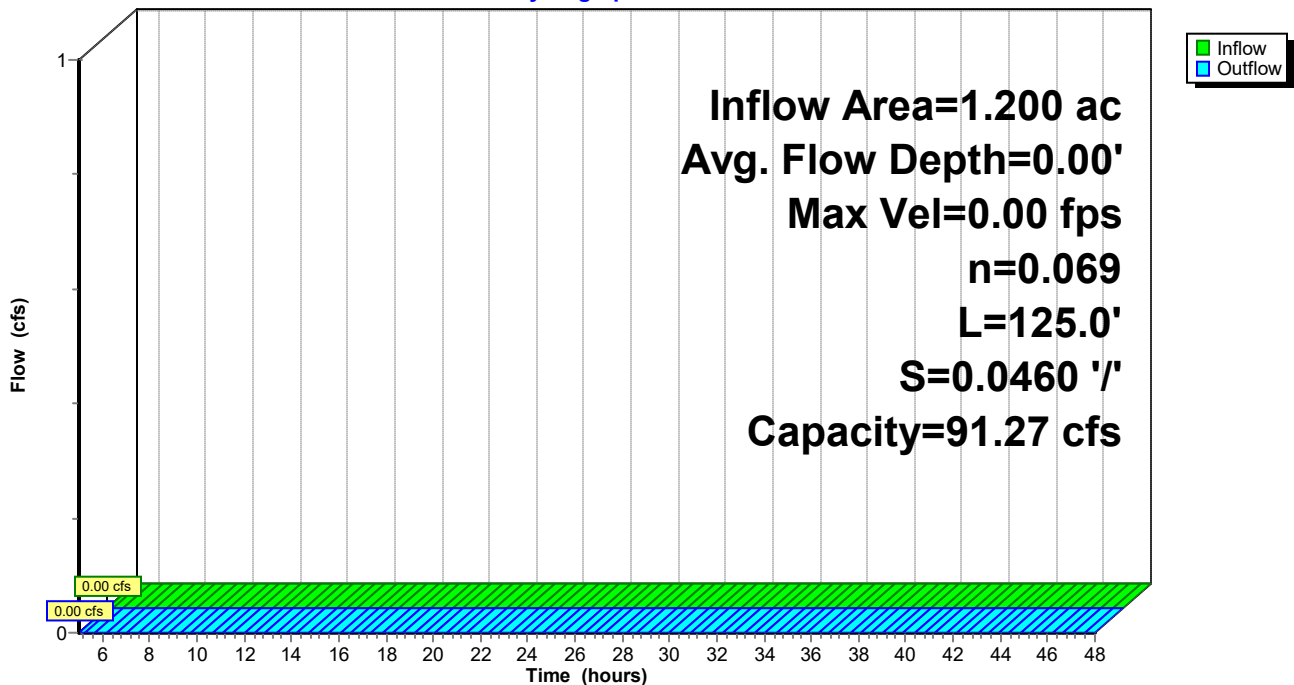
Peak Storage= 0 cf @ 5.00 hrs  
 Average Depth at Peak Storage= 0.00'  
 Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 91.27 cfs

3.00' x 2.00' deep channel, n= 0.069 Riprap, 6-inch  
 Side Slope Z-value= 3.0 '/' Top Width= 15.00'  
 Length= 125.0' Slope= 0.0460 '/'  
 Inlet Invert= 11.75', Outlet Invert= 6.00'



**Reach 5R: Overflow**

Hydrograph



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**Summary for Reach 6R: Overflow**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 0.00" for 1-Year event  
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af  
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min  
Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

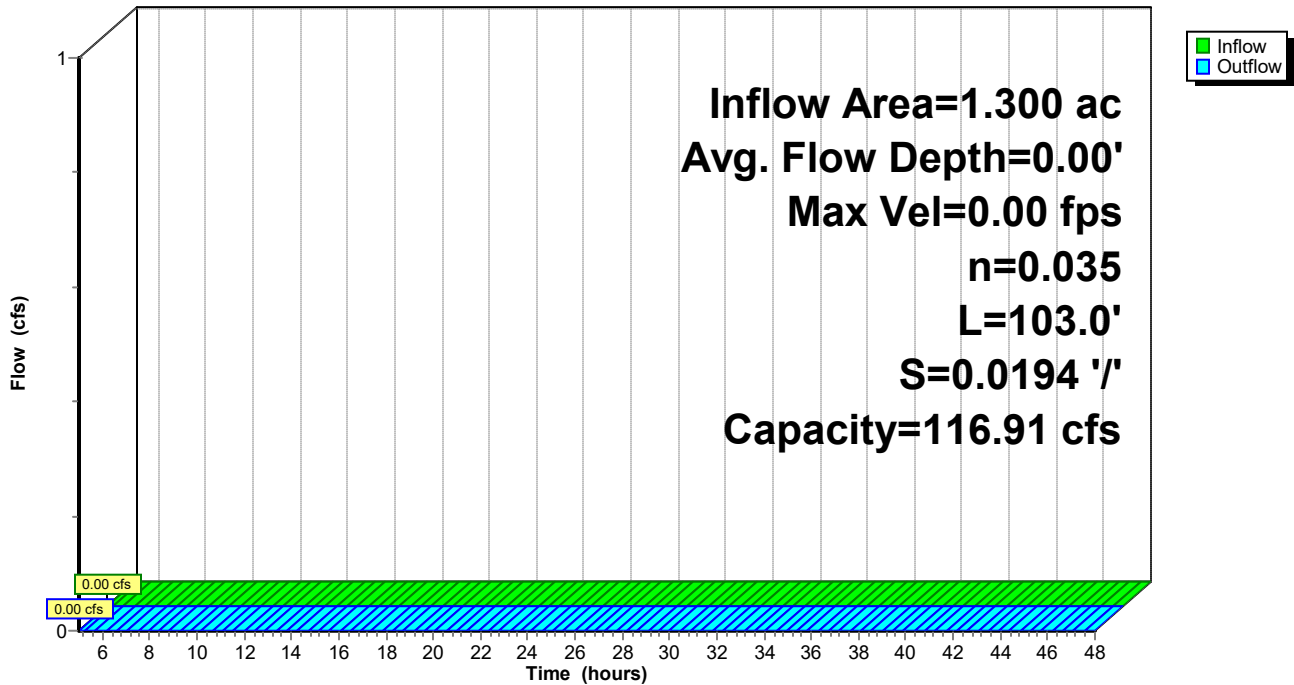
Peak Storage= 0 cf @ 5.00 hrs  
Average Depth at Peak Storage= 0.00'  
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 116.91 cfs

3.00' x 2.00' deep channel, n= 0.035 Riprap, 6-inch  
Side Slope Z-value= 3.0 '/' Top Width= 15.00'  
Length= 103.0' Slope= 0.0194 '/'  
Inlet Invert= 8.50', Outlet Invert= 6.50'



**Reach 6R: Overflow**

Hydrograph



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## Summary for Reach 7R: Overflow

Inflow Area = 2.900 ac, 65.52% Impervious, Inflow Depth > 1.39" for 1-Year event  
Inflow = 0.30 cfs @ 13.52 hrs, Volume= 0.335 af  
Outflow = 0.30 cfs @ 13.60 hrs, Volume= 0.335 af, Atten= 0%, Lag= 4.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.55 fps, Min. Travel Time= 3.0 min  
Avg. Velocity = 0.34 fps, Avg. Travel Time= 4.8 min

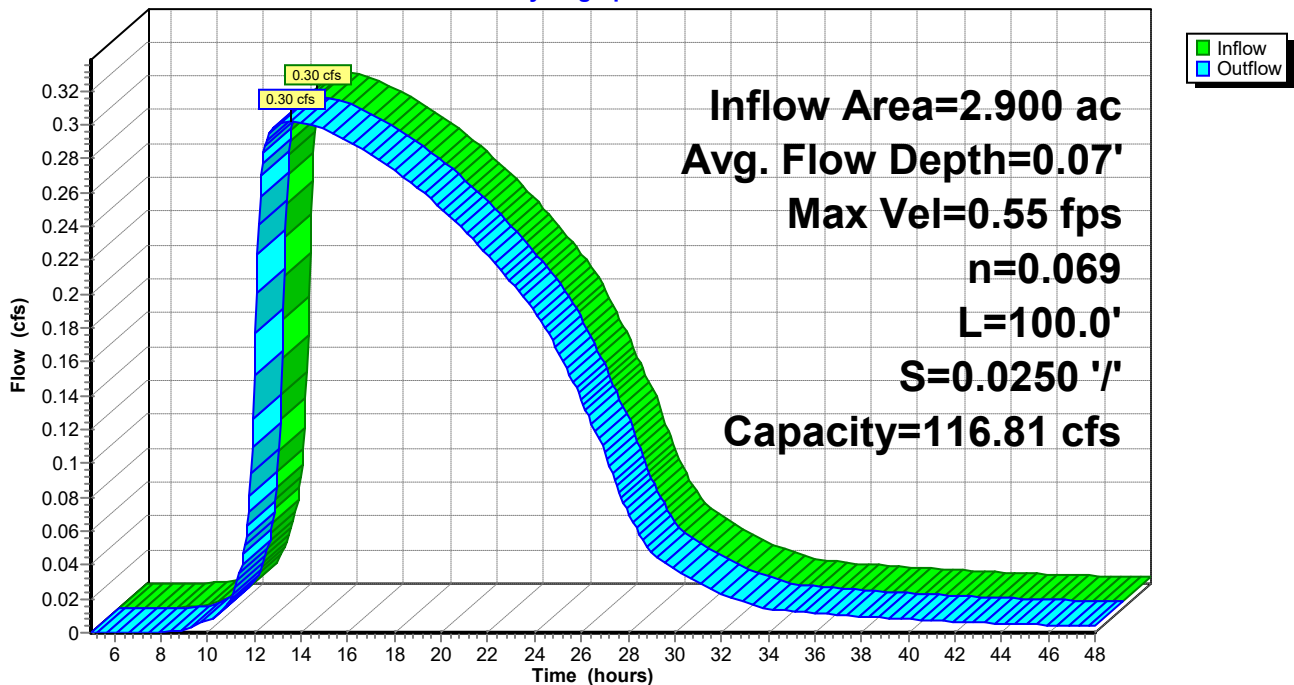
Peak Storage= 54 cf @ 13.55 hrs  
Average Depth at Peak Storage= 0.07' , Surface Width= 8.40'  
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 116.81 cfs

8.00' x 2.00' deep channel, n= 0.069 Riprap, 6-inch  
Side Slope Z-value= 3.0 ' / ' Top Width= 20.00'  
Length= 100.0' Slope= 0.0250 ' / '  
Inlet Invert= 14.50', Outlet Invert= 12.00'



## Reach 7R: Overflow

### Hydrograph



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**Summary for Reach 8R: Dry Swale**

Inflow Area = 1.000 ac, 95.00% Impervious, Inflow Depth > 1.67" for 1-Year event  
 Inflow = 2.72 cfs @ 11.96 hrs, Volume= 0.139 af  
 Outflow = 2.65 cfs @ 11.99 hrs, Volume= 0.139 af, Atten= 3%, Lag= 1.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 2.47 fps, Min. Travel Time= 0.7 min  
 Avg. Velocity = 0.61 fps, Avg. Travel Time= 2.9 min

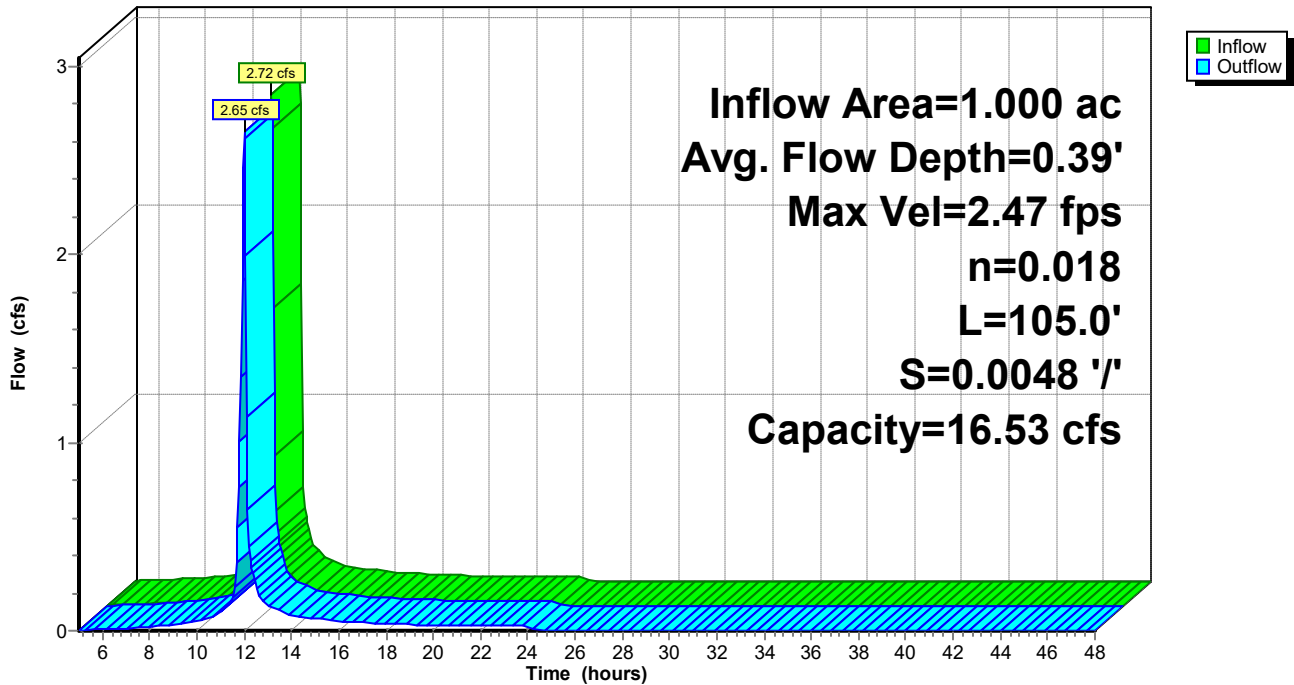
Peak Storage= 114 cf @ 11.98 hrs  
 Average Depth at Peak Storage= 0.39' , Surface Width= 3.57'  
 Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 16.53 cfs

2.00' x 1.00' deep channel, n= 0.018 Earth, clean & straight  
 Side Slope Z-value= 2.0 ' / ' Top Width= 6.00'  
 Length= 105.0' Slope= 0.0048 ' / '  
 Inlet Invert= 10.00', Outlet Invert= 9.50'



**Reach 8R: Dry Swale**

**Hydrograph**



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**Summary for Reach 10R: Dry Swale**

Inflow Area = 0.760 ac, 78.95% Impervious, Inflow Depth = 1.00" for 1-Year event  
 Inflow = 1.22 cfs @ 12.03 hrs, Volume= 0.064 af  
 Outflow = 1.20 cfs @ 12.04 hrs, Volume= 0.064 af, Atten= 2%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 3.19 fps, Min. Travel Time= 0.6 min  
 Avg. Velocity = 1.01 fps, Avg. Travel Time= 1.9 min

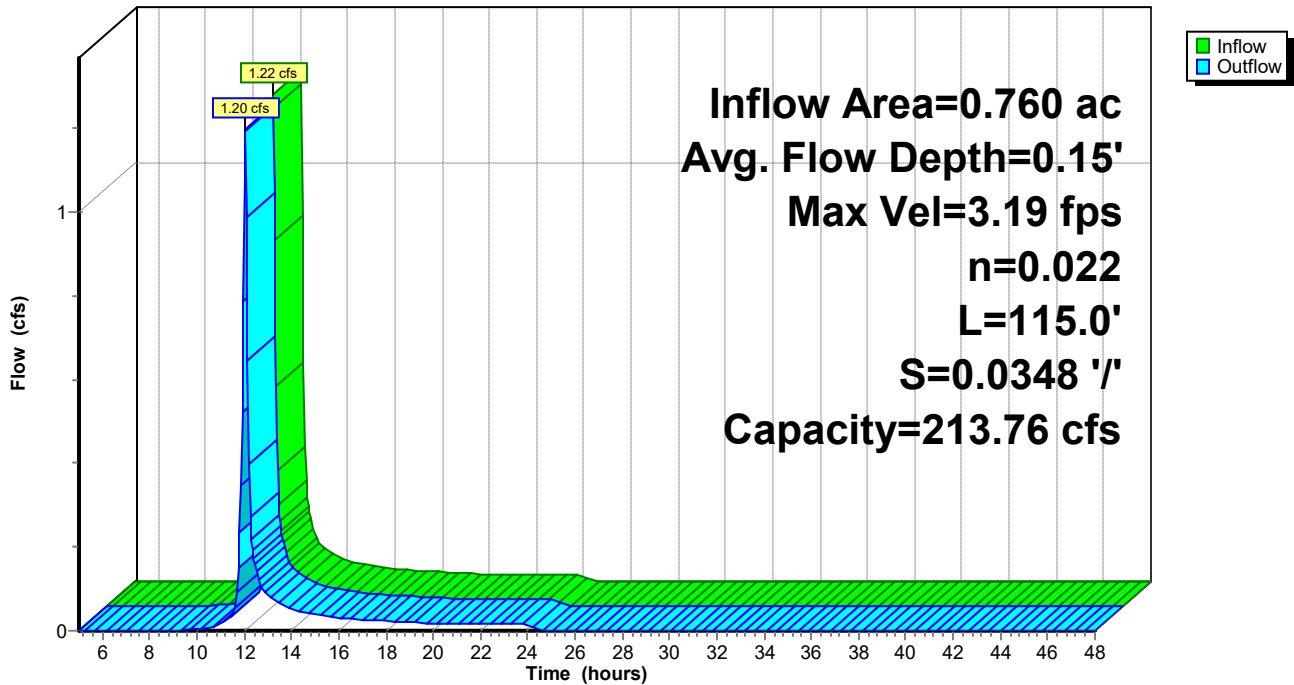
Peak Storage= 44 cf @ 12.03 hrs  
 Average Depth at Peak Storage= 0.15' , Surface Width= 2.93'  
 Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 213.76 cfs

2.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 ' / ' Top Width= 14.00'  
 Length= 115.0' Slope= 0.0348 ' / '  
 Inlet Invert= 37.00', Outlet Invert= 33.00'



**Reach 10R: Dry Swale**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Reach 12R: Sediment Basin Overflow**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 0.03" for 1-Year event  
Inflow = 0.01 cfs @ 19.15 hrs, Volume= 0.003 af  
Outflow = 0.01 cfs @ 19.17 hrs, Volume= 0.003 af, Atten= 0%, Lag= 1.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.12 fps, Min. Travel Time= 0.9 min  
Avg. Velocity = 0.10 fps, Avg. Travel Time= 1.0 min

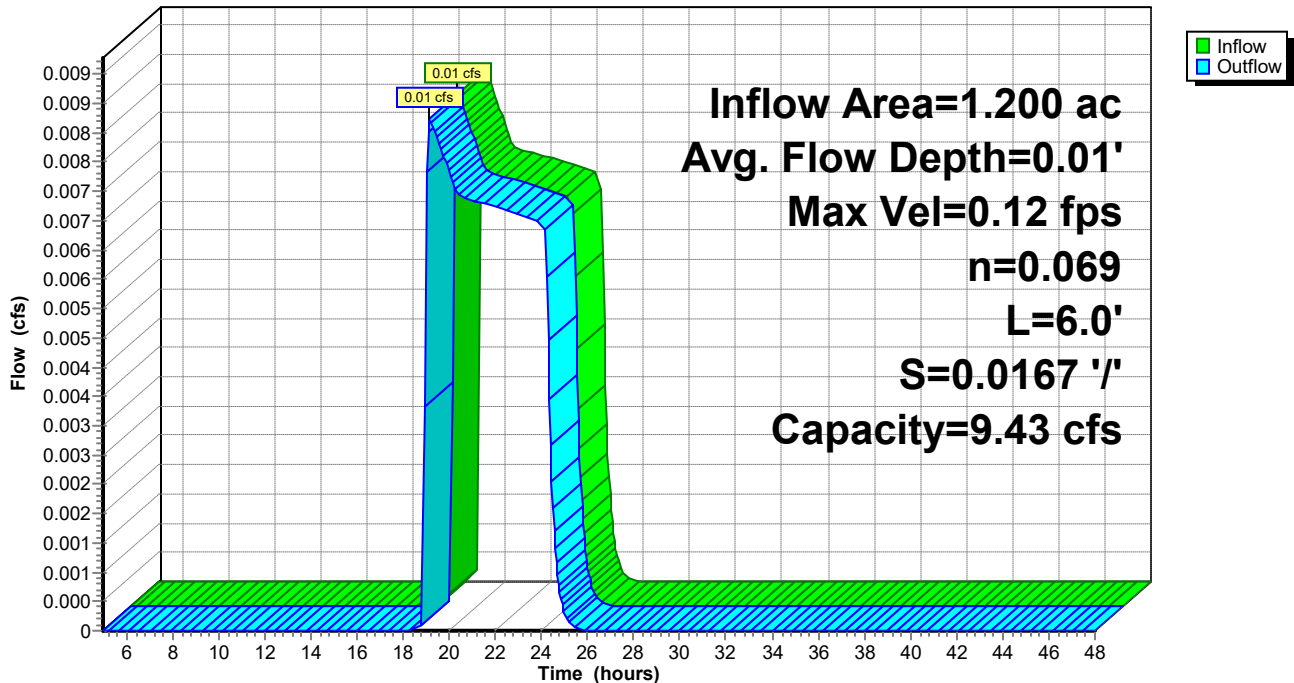
Peak Storage= 0 cf @ 19.05 hrs  
Average Depth at Peak Storage= 0.01' , Surface Width= 10.06'  
Bank-Full Depth= 0.50' Flow Area= 6.0 sf, Capacity= 9.43 cfs

10.00' x 0.50' deep channel, n= 0.069 Riprap, 6-inch  
Side Slope Z-value= 4.0 ' / ' Top Width= 14.00'  
Length= 6.0' Slope= 0.0167 ' / '  
Inlet Invert= 12.00', Outlet Invert= 11.90'



**Reach 12R: Sediment Basin Overflow**

Hydrograph



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## Summary for Reach 13R: Roadside Swale

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 0.12" for 1-Year event  
Inflow = 0.05 cfs @ 12.05 hrs, Volume= 0.012 af  
Outflow = 0.04 cfs @ 12.26 hrs, Volume= 0.012 af, Atten= 34%, Lag= 12.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.76 fps, Min. Travel Time= 6.4 min  
Avg. Velocity = 0.48 fps, Avg. Travel Time= 10.0 min

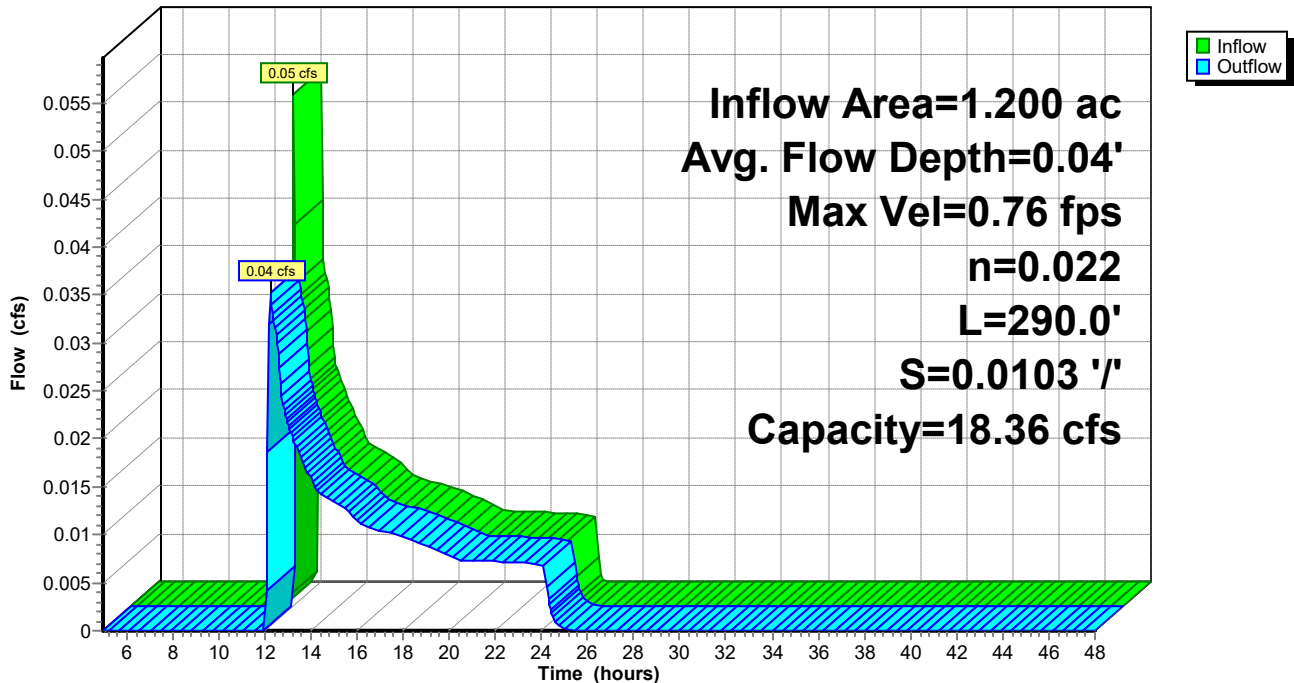
Peak Storage= 13 cf @ 12.15 hrs  
Average Depth at Peak Storage= 0.04' , Surface Width= 1.25'  
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 18.36 cfs

1.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight  
Side Slope Z-value= 3.0 ' / ' Top Width= 7.00'  
Length= 290.0' Slope= 0.0103 ' / '  
Inlet Invert= 15.00', Outlet Invert= 12.00'



## Reach 13R: Roadside Swale

### Hydrograph



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**Summary for Reach 14R: Roadside Swale**

Inflow Area = 0.760 ac, 78.95% Impervious, Inflow Depth = 1.00" for 1-Year event  
 Inflow = 1.32 cfs @ 11.97 hrs, Volume= 0.064 af  
 Outflow = 1.22 cfs @ 12.03 hrs, Volume= 0.064 af, Atten= 7%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 3.99 fps, Min. Travel Time= 1.9 min  
 Avg. Velocity = 1.33 fps, Avg. Travel Time= 5.7 min

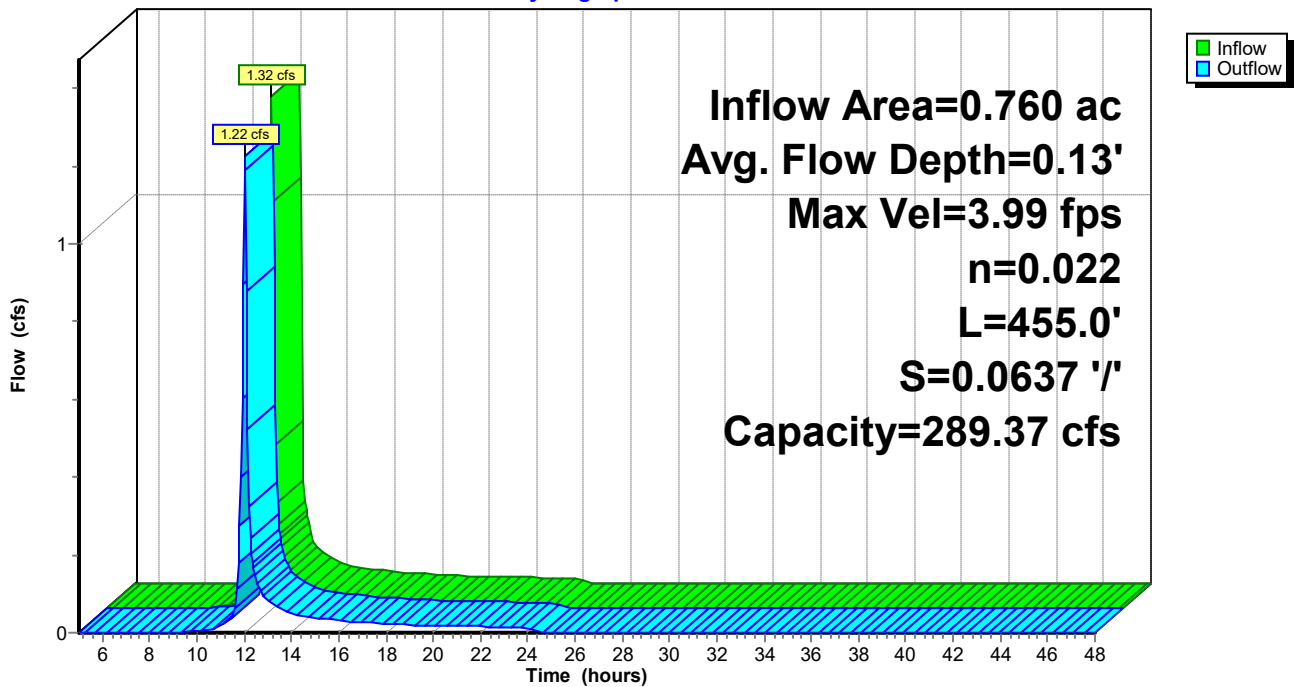
Peak Storage= 146 cf @ 11.99 hrs  
 Average Depth at Peak Storage= 0.13' , Surface Width= 2.80'  
 Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 289.37 cfs

2.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 '/' Top Width= 14.00'  
 Length= 455.0' Slope= 0.0637 '/'  
 Inlet Invert= 66.00', Outlet Invert= 37.00'



**Reach 14R: Roadside Swale**

Hydrograph





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## Summary for Reach 15R: Roadside Swale

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 0.41" for 1-Year event  
Inflow = 0.84 cfs @ 11.99 hrs, Volume= 0.045 af  
Outflow = 0.46 cfs @ 12.27 hrs, Volume= 0.045 af, Atten= 46%, Lag= 16.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.64 fps, Min. Travel Time= 11.2 min  
Avg. Velocity = 0.21 fps, Avg. Travel Time= 34.0 min

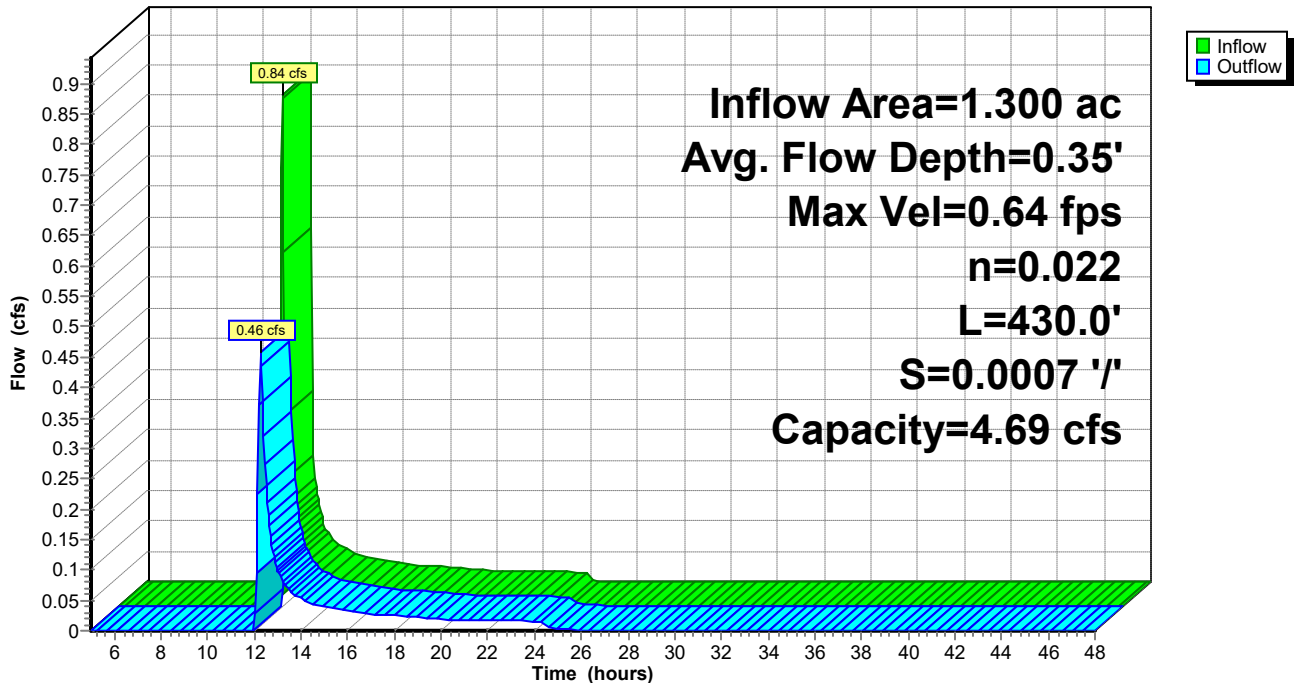
Peak Storage= 310 cf @ 12.07 hrs  
Average Depth at Peak Storage= 0.35' , Surface Width= 3.11'  
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 4.69 cfs

1.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight  
Side Slope Z-value= 3.0 ' / ' Top Width= 7.00'  
Length= 430.0' Slope= 0.0007 ' / '  
Inlet Invert= 10.00', Outlet Invert= 9.71'



## Reach 15R: Roadside Swale

### Hydrograph



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**Summary for Reach 17R: Sediment Basin Overflow**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 0.31" for 1-Year event  
 Inflow = 0.27 cfs @ 12.56 hrs, Volume= 0.033 af  
 Outflow = 0.22 cfs @ 12.59 hrs, Volume= 0.033 af, Atten= 19%, Lag= 1.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.33 fps, Min. Travel Time= 0.3 min  
 Avg. Velocity = 0.13 fps, Avg. Travel Time= 0.7 min

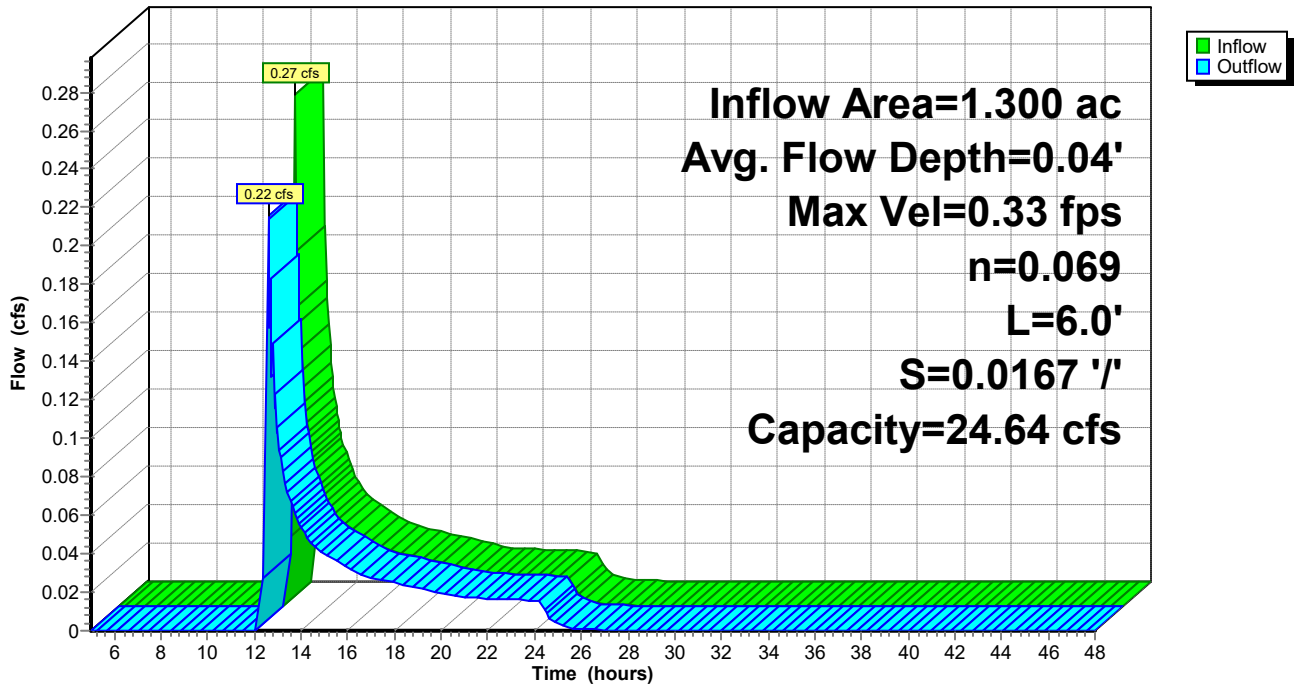
Peak Storage= 4 cf @ 12.58 hrs  
 Average Depth at Peak Storage= 0.04' , Surface Width= 15.35'  
 Bank-Full Depth= 0.70' Flow Area= 12.5 sf, Capacity= 24.64 cfs

15.00' x 0.70' deep channel, n= 0.069 Riprap, 6-inch  
 Side Slope Z-value= 4.0 ' / ' Top Width= 20.60'  
 Length= 6.0' Slope= 0.0167 ' / '  
 Inlet Invert= 9.00', Outlet Invert= 8.90'



**Reach 17R: Sediment Basin Overflow**

Hydrograph



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**Summary for Pond 1P: WQv Pond #1**

Inflow Area = 2.900 ac, 65.52% Impervious, Inflow Depth = 1.42" for 1-Year event  
 Inflow = 4.50 cfs @ 12.11 hrs, Volume= 0.344 af  
 Outflow = 0.30 cfs @ 13.52 hrs, Volume= 0.335 af, Atten= 93%, Lag= 84.8 min  
 Primary = 0.30 cfs @ 13.52 hrs, Volume= 0.335 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Starting Elev= 14.00' Surf.Area= 9,229 sf Storage= 19,003 cf  
 Peak Elev= 15.00' @ 13.52 hrs Surf.Area= 17,571 sf Storage= 27,646 cf (8,643 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)  
 Center-of-Mass det. time= 363.2 min ( 1,180.3 - 817.1 )

Volume	Invert	Avail.Storage	Storage Description
#1	10.00'	4,795 cf	<b>Forebay (Prismatic)</b> Listed below (Recalc)
#2	9.00'	57,882 cf	<b>Permanent Pool (Prismatic)</b> Listed below (Recalc)
		62,677 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	232	0	0
11.00	569	401	401
12.00	1,018	794	1,194
13.00	1,467	1,243	2,437
14.00	3,249	2,358	4,795

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
9.00	1,145	0	0
10.00	1,751	1,448	1,448
11.00	2,339	2,045	3,493
12.00	2,959	2,649	6,142
13.00	3,597	3,278	9,420
14.00	5,980	4,789	14,209
14.50	7,240	3,305	17,514
15.00	14,392	5,408	22,922
16.00	17,455	15,924	38,845
17.00	20,619	19,037	57,882

Device	Routing	Invert	Outlet Devices
#1	Primary	14.00'	<b>12.0" Round Culvert</b> L= 50.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 14.00' / 14.00' S= 0.0000 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	16.00'	<b>24.0" x 24.0" Horiz. Outlet Structure Top Grate</b> C= 0.600 in 24.0" x 24.0" Grate (100% open area) Limited to weir flow at low heads
#3	Device 1	14.00'	<b>4.0" Round Reverse Slope Pipe</b> L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 9.00' / 14.00' S= -0.1250 ' / Cc= 0.900

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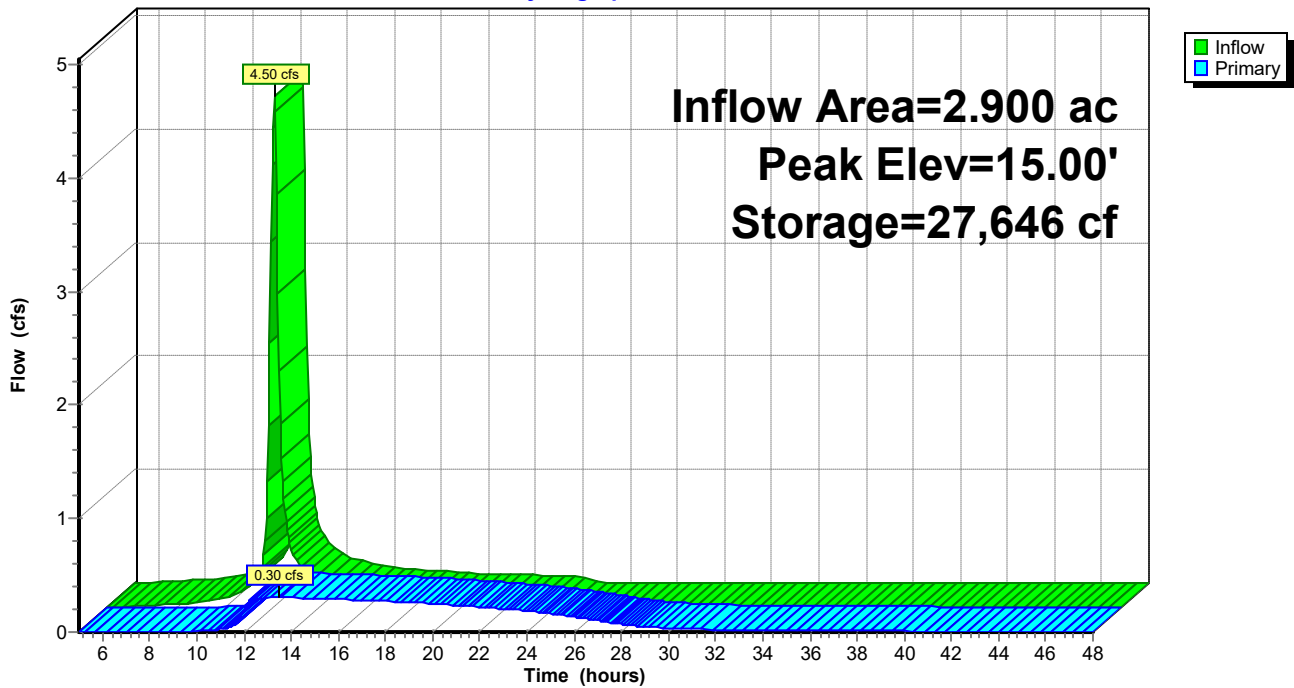
#4	Primary	16.25'	n= 0.010 PVC, smooth interior, Flow Area= 0.09 sf
			<b>6.0' long x 1.0' breadth Broad-Crested Rectangular Weir</b>
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

**Primary OutFlow** Max=0.30 cfs @ 13.52 hrs HW=15.00' (Free Discharge)

- 1=Culvert (Passes 0.30 cfs of 1.52 cfs potential flow)
- 2=Outlet Structure Top Grate (Controls 0.00 cfs)
- 3=Reverse Slope Pipe (Inlet Controls 0.30 cfs @ 3.46 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

**Pond 1P: WQv Pond #1**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Pond 2P: WQv Pond #2**

Inflow Area = 5.800 ac, 31.90% Impervious, Inflow Depth > 1.21" for 1-Year event  
 Inflow = 10.43 cfs @ 11.98 hrs, Volume= 0.585 af  
 Outflow = 0.48 cfs @ 13.63 hrs, Volume= 0.577 af, Atten= 95%, Lag= 99.0 min  
 Primary = 0.48 cfs @ 13.63 hrs, Volume= 0.577 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Starting Elev= 14.00' Surf.Area= 5,917 sf Storage= 9,000 cf  
 Peak Elev= 15.46' @ 13.63 hrs Surf.Area= 20,187 sf Storage= 23,512 cf (14,513 cf above start)

Plug-Flow detention time= 672.5 min calculated for 0.370 af (63% of inflow)  
 Center-of-Mass det. time= 374.3 min ( 1,193.6 - 819.3 )

Volume	Invert	Avail.Storage	Storage Description
#1	10.00'	4,020 cf	<b>Forebay #1 (Prismatic)</b> Listed below (Recalc)
#2	10.00'	2,575 cf	<b>Forebay #2 (Prismatic)</b> Listed below (Recalc)
#3	10.00'	58,093 cf	<b>Permanent Pool (Prismatic)</b> Listed below (Recalc)
		64,688 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	141	0	0
11.00	330	236	236
12.00	562	446	682
13.00	866	714	1,396
14.00	2,023	1,445	2,840
14.50	2,696	1,180	4,020

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	82	0	0
11.00	202	142	142
12.00	351	277	419
13.00	535	443	862
14.00	1,323	929	1,791
14.50	1,815	785	2,575

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	375	0	0
11.00	653	514	514
12.00	957	805	1,319
13.00	1,286	1,122	2,441
14.00	2,571	1,929	4,369
14.50	3,307	1,470	5,839
15.00	13,814	4,280	10,119
16.00	17,852	15,833	25,952
17.00	22,659	20,256	46,207
17.50	24,884	11,886	58,093

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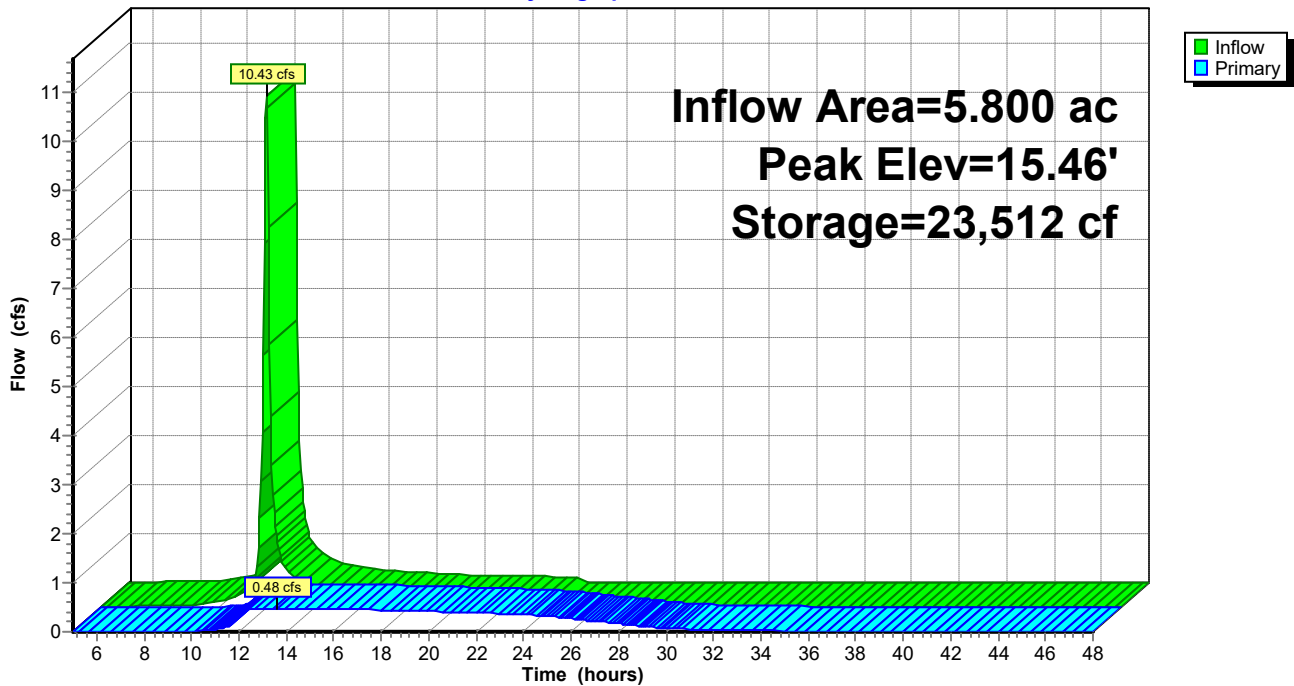
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Device	Routing	Invert	Outlet Devices
#1	Device 3	16.50'	<b>24.0" x 24.0" Horiz. Orifice/Grate</b> C= 0.600 in 24.0" x 24.0" Grate (100% open area) Limited to weir flow at low heads
#2	Device 3	14.00'	<b>4.0" Vert. Reverse Slope Pipe</b> C= 0.600 Limited to weir flow at low heads
#3	Primary	14.00'	<b>12.0" Round Outlet Structure Discard Pipe</b> L= 40.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 14.00' / 14.00' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	16.60'	<b>5.0' long x 0.5' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

**Primary OutFlow** Max=0.48 cfs @ 13.63 hrs HW=15.46' (Free Discharge)  
 3=Outlet Structure Discard Pipe (Passes 0.48 cfs of 2.58 cfs potential flow)  
 1=Orifice/Grate ( Controls 0.00 cfs)  
 2=Reverse Slope Pipe (Orifice Controls 0.48 cfs @ 5.48 fps)  
 4=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)

**Pond 2P: WQv Pond #2**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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**Summary for Pond 3P: Infiltration Basin #1**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 0.03" for 1-Year event  
 Inflow = 0.01 cfs @ 19.17 hrs, Volume= 0.003 af  
 Outflow = 0.00 cfs @ 24.43 hrs, Volume= 0.003 af, Atten= 68%, Lag= 315.4 min  
 Discarded = 0.00 cfs @ 24.43 hrs, Volume= 0.003 af  
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 8.73' @ 24.43 hrs Surf.Area= 220 sf Storage= 101 cf

Plug-Flow detention time= 397.2 min calculated for 0.003 af (100% of inflow)  
 Center-of-Mass det. time= 397.1 min ( 1,695.8 - 1,298.7 )

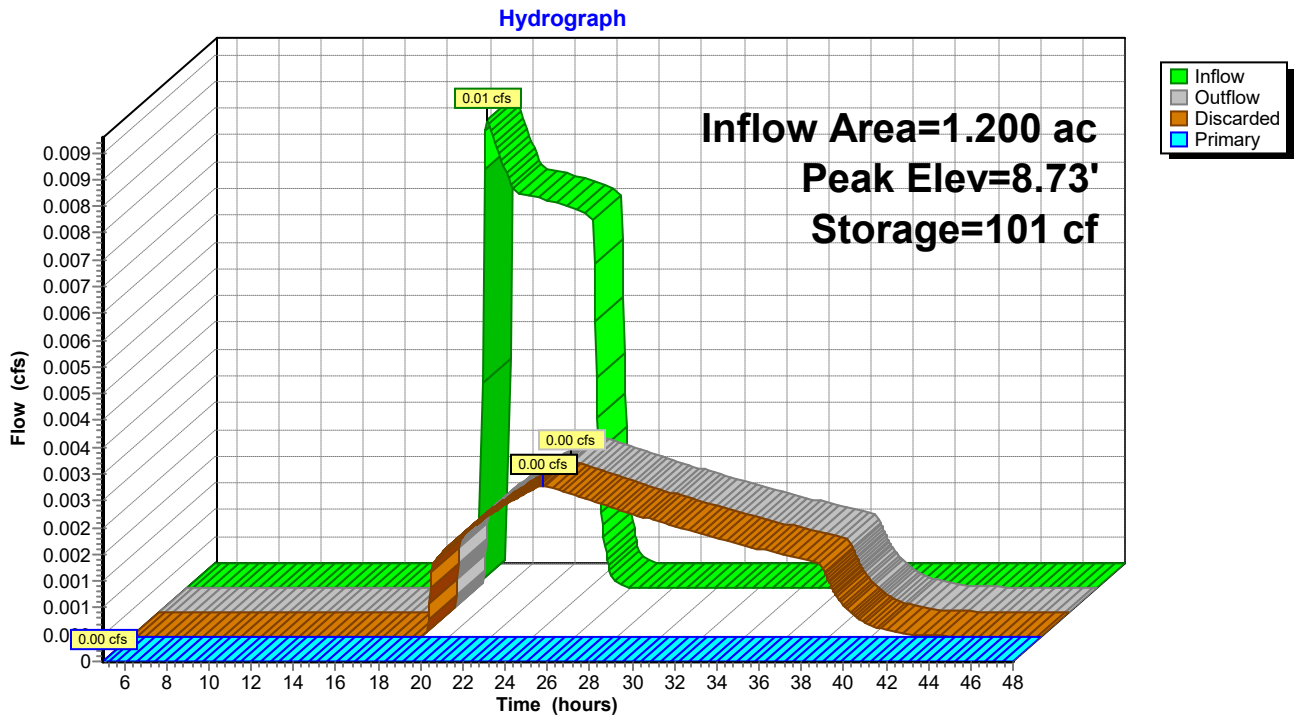
Volume	Invert	Avail.Storage	Storage Description		
#1	8.10'	2,492 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
8.10	109	56.0	0	0	109
12.00	1,415	149.0	2,492	2,492	1,678

Device	Routing	Invert	Outlet Devices
#1	Primary	11.75'	<b>Channel/Reach</b> using Reach 5R: Overflow
#2	Discarded	8.10'	<b>0.500 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 4.00'

**Discarded OutFlow** Max=0.00 cfs @ 24.43 hrs HW=8.73' (Free Discharge)  
 ↑**2=Exfiltration** ( Controls 0.00 cfs)

**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=8.10' (Free Discharge)  
 ↑**1=Channel/Reach** ( Controls 0.00 cfs)

### Pond 3P: Infiltration Basin #1





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**Summary for Pond 4P: Infiltration Basin #2**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 0.31" for 1-Year event  
 Inflow = 0.22 cfs @ 12.59 hrs, Volume= 0.033 af  
 Outflow = 0.01 cfs @ 24.39 hrs, Volume= 0.027 af, Atten= 94%, Lag= 708.1 min  
 Discarded = 0.01 cfs @ 24.39 hrs, Volume= 0.027 af  
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 8.31' @ 24.39 hrs Surf.Area= 782 sf Storage= 992 cf

Plug-Flow detention time= 821.1 min calculated for 0.027 af (81% of inflow)  
 Center-of-Mass det. time= 736.0 min ( 1,725.3 - 989.3 )

Volume	Invert	Avail.Storage	Storage Description		
#1	5.80'	2,495 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
5.80	110	56.0	0	0	110
9.70	1,415	150.0	2,495	2,495	1,702

Device	Routing	Invert	Outlet Devices
#1	Primary	8.50'	<b>Channel/Reach</b> using Reach 6R: Overflow
#2	Discarded	5.80'	<b>0.500 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 3.00'

**Discarded OutFlow** Max=0.01 cfs @ 24.39 hrs HW=8.31' (Free Discharge)  
 ↑**2=Exfiltration** ( Controls 0.01 cfs)

**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=5.80' (Free Discharge)  
 ↑**1=Channel/Reach** ( Controls 0.00 cfs)

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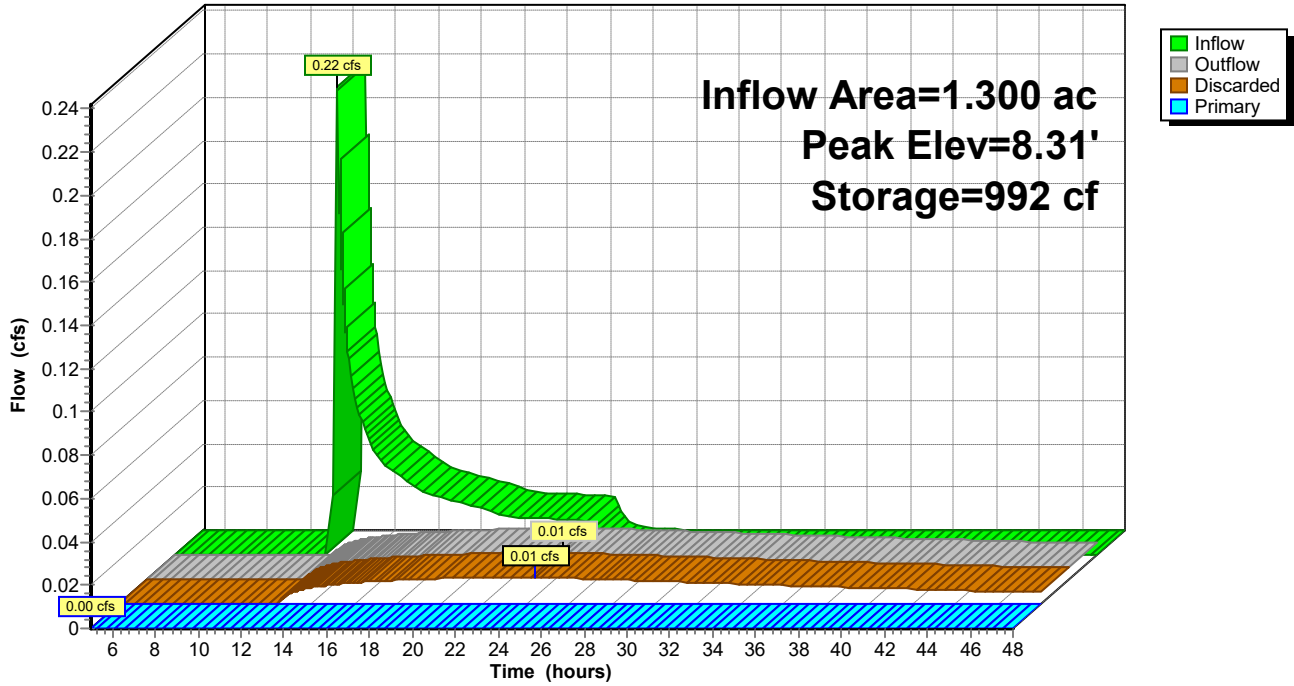
Type II 24-hr 1-Year Rainfall=2.20"

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**Pond 4P: Infiltration Basin #2**

Hydrograph



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**Summary for Pond 5P: Sedimentation Basin #1**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 0.12" for 1-Year event  
 Inflow = 0.04 cfs @ 12.26 hrs, Volume= 0.012 af  
 Outflow = 0.01 cfs @ 19.15 hrs, Volume= 0.003 af, Atten= 75%, Lag= 413.3 min  
 Primary = 0.01 cfs @ 19.15 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 12.00' @ 19.15 hrs Surf.Area= 356 sf Storage= 361 cf

Plug-Flow detention time= 524.8 min calculated for 0.003 af (29% of inflow)  
 Center-of-Mass det. time= 290.9 min ( 1,296.9 - 1,006.1 )

Volume	Invert	Avail.Storage	Storage Description			
#1	10.00'	594 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
10.00	55	29.0	0	0	55	
11.00	166	48.0	106	106	178	
12.00	354	69.8	254	360	390	
12.50	593	89.0	234	594	636	

Device	Routing	Invert	Outlet Devices	
#1	Primary	12.00'	<b>Channel/Reach</b> using Reach 12R: Sediment Basin Overflow	

**Primary OutFlow** Max=0.00 cfs @ 19.15 hrs HW=12.00' (Free Discharge)

↑ **1=Channel/Reach** (Channel Controls 0.00 cfs @ 0.07 fps)

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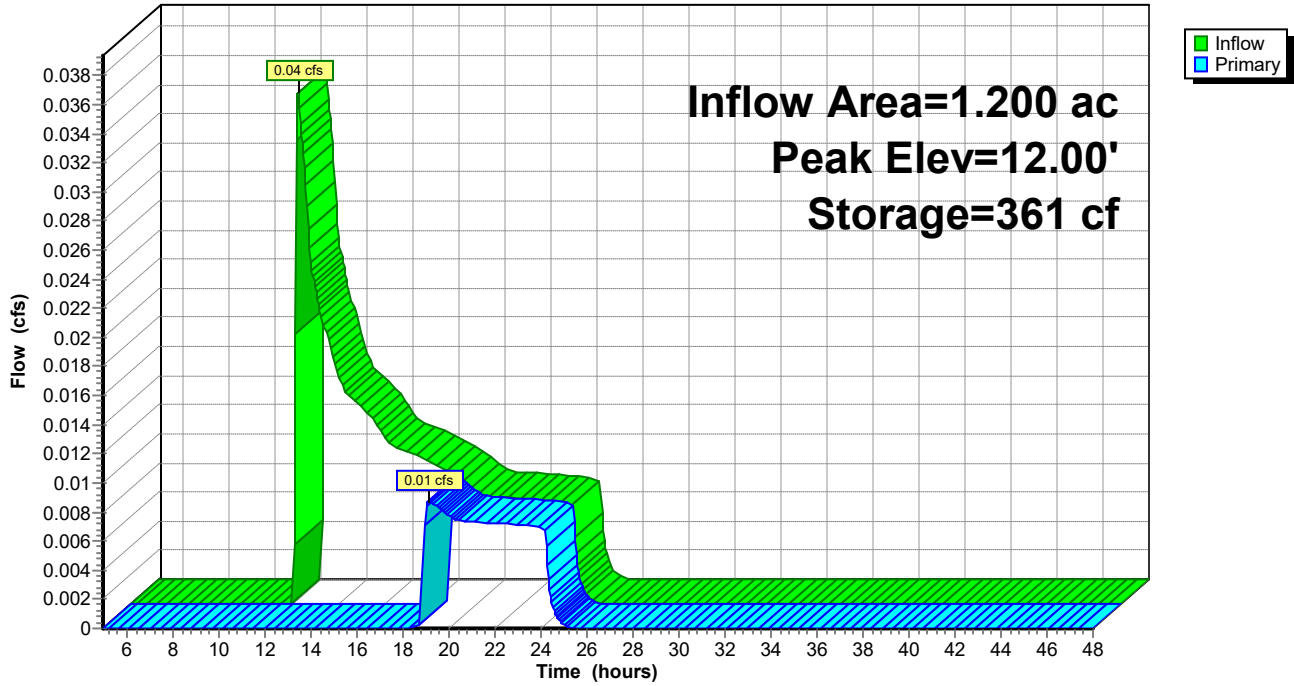
Type II 24-hr 1-Year Rainfall=2.20"

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**Pond 5P: Sedimentation Basin #1**

Hydrograph



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**Summary for Pond 16P: Sedimentation Basin #2**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 0.41" for 1-Year event  
 Inflow = 0.46 cfs @ 12.27 hrs, Volume= 0.045 af  
 Outflow = 0.27 cfs @ 12.56 hrs, Volume= 0.033 af, Atten= 42%, Lag= 17.8 min  
 Primary = 0.27 cfs @ 12.56 hrs, Volume= 0.033 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 9.05' @ 12.55 hrs Surf.Area= 285 sf Storage= 504 cf

Plug-Flow detention time= 174.6 min calculated for 0.033 af (75% of inflow)  
 Center-of-Mass det. time= 63.9 min ( 988.4 - 924.5 )

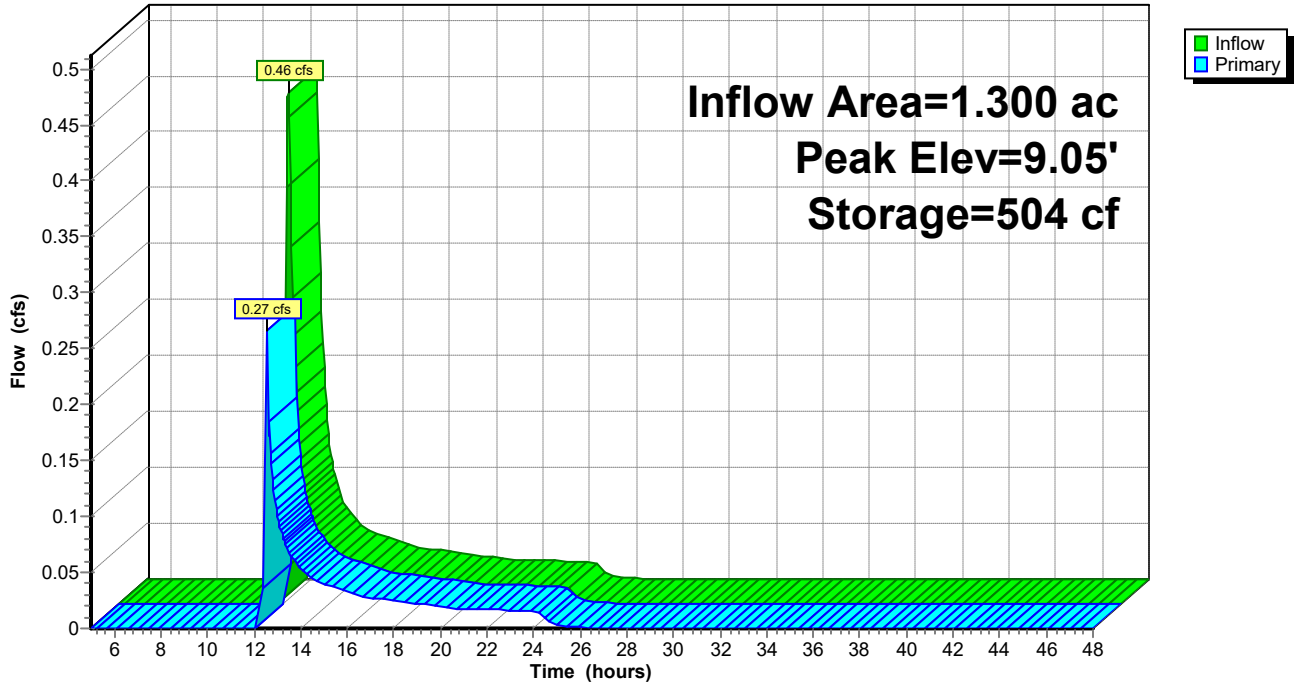
Volume	Invert	Avail.Storage	Storage Description			
#1	5.80'	713 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
5.80	55	29.3	0	0	55	
7.00	120	42.0	102	102	139	
8.00	192	53.0	155	257	235	
9.00	280	64.0	235	492	353	
9.70	355	69.9	222	713	431	

Device	Routing	Invert	Outlet Devices	
#1	Primary	9.00'	<b>Channel/Reach</b> using Reach 17R: Sediment Basin Overflow	

**Primary OutFlow** Max=0.22 cfs @ 12.56 hrs HW=9.04' (Free Discharge)  
 ↑1=Channel/Reach (Channel Controls 0.22 cfs @ 0.34 fps)

Pond 16P: Sedimentation Basin #2

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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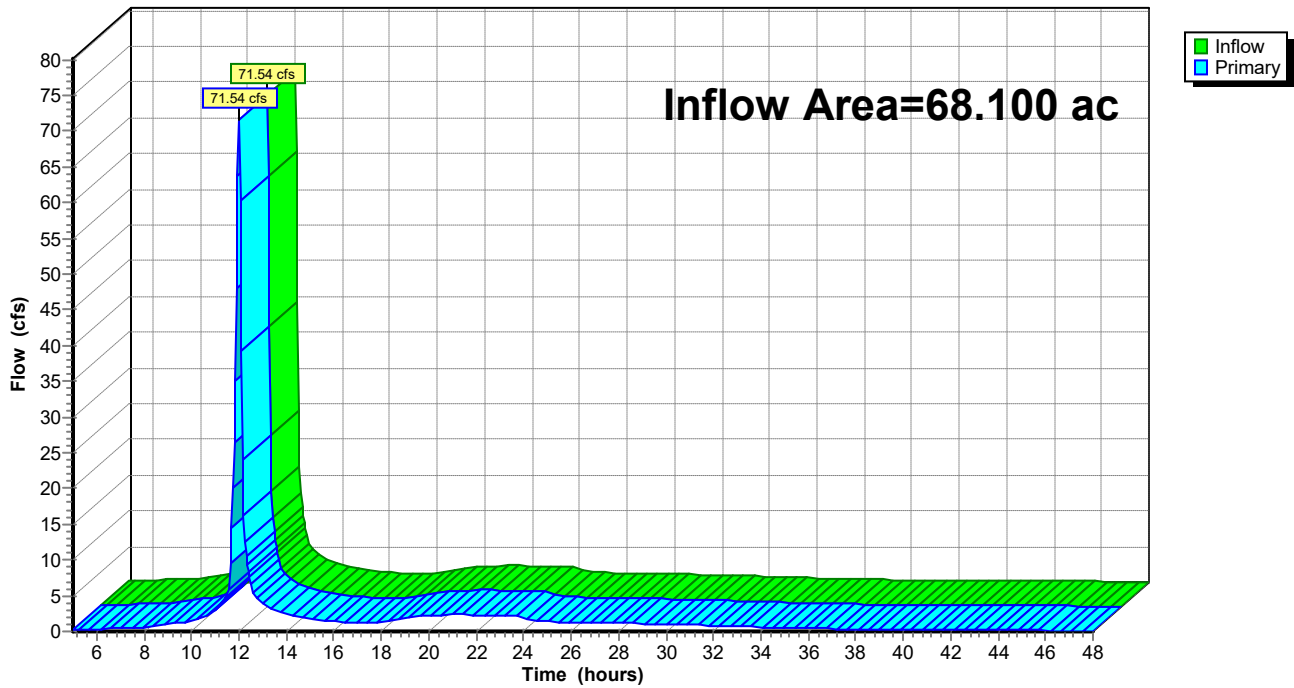
**Summary for Pond AP-1: Analysis Point #1**

Inflow Area = 68.100 ac, 20.36% Impervious, Inflow Depth > 1.03" for 1-Year event  
Inflow = 71.54 cfs @ 12.00 hrs, Volume= 5.837 af  
Primary = 71.54 cfs @ 12.00 hrs, Volume= 5.837 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs

**Pond AP-1: Analysis Point #1**

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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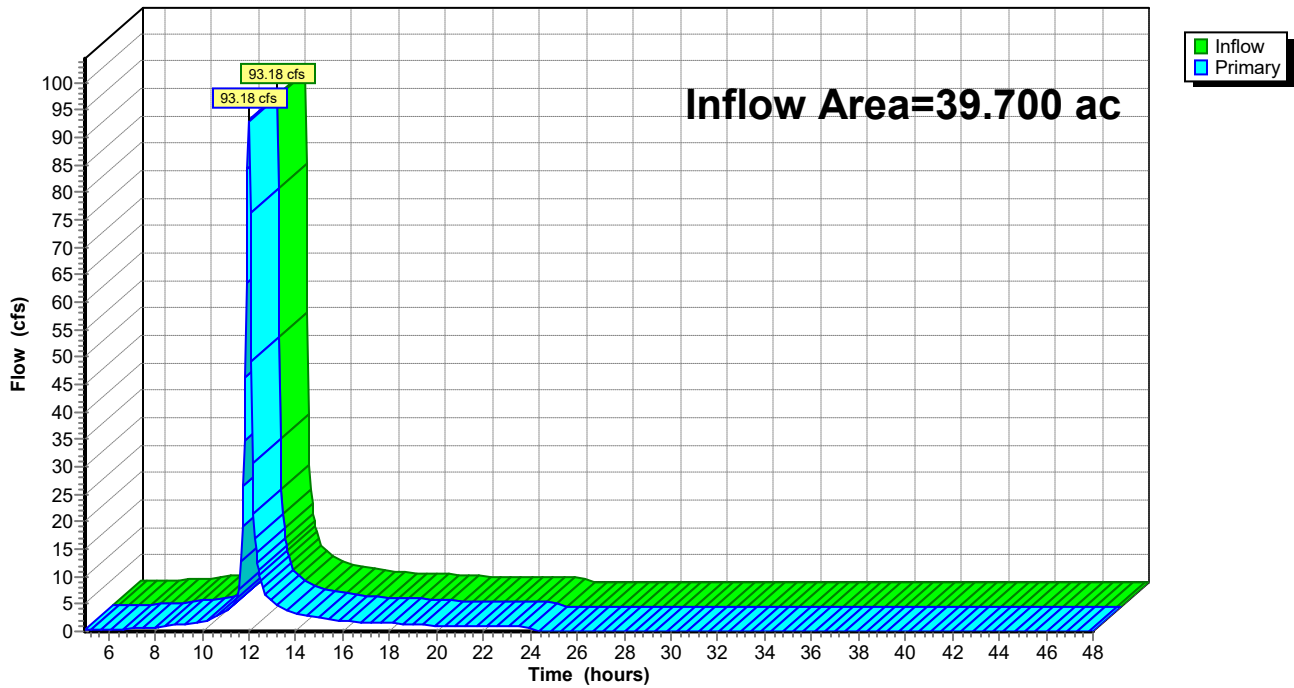
**Summary for Pond AP-2: Analysis Point #2**

Inflow Area = 39.700 ac, 23.10% Impervious, Inflow Depth > 1.58" for 1-Year event  
Inflow = 93.18 cfs @ 11.99 hrs, Volume= 5.241 af  
Primary = 93.18 cfs @ 11.99 hrs, Volume= 5.241 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs

**Pond AP-2: Analysis Point #2**

Hydrograph





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Type II 24-hr 1-Year Rainfall=2.20"

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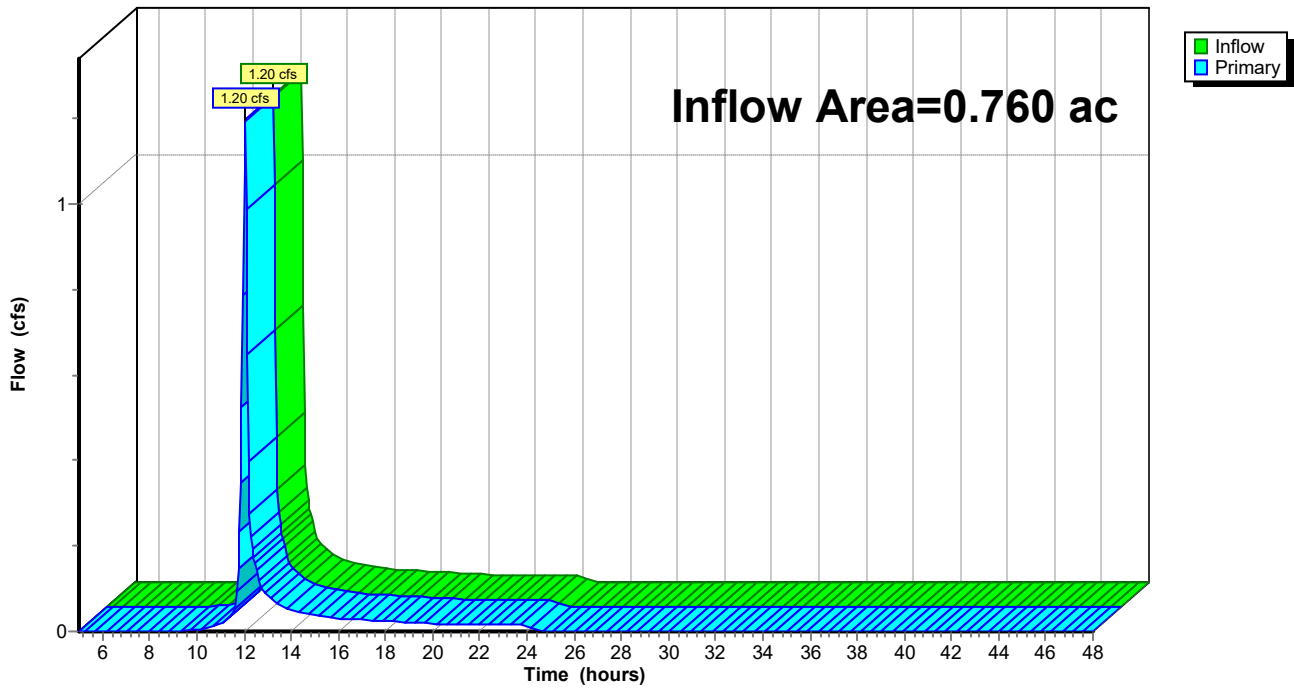
**Summary for Pond AP-3: Analysis Point #3**

Inflow Area = 0.760 ac, 78.95% Impervious, Inflow Depth = 1.00" for 1-Year event  
Inflow = 1.20 cfs @ 12.04 hrs, Volume= 0.064 af  
Primary = 1.20 cfs @ 12.04 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs

**Pond AP-3: Analysis Point #3**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-1: Building A & Storage**

Runoff = 49.84 cfs @ 11.98 hrs, Volume= 2.772 af, Depth> 3.23"

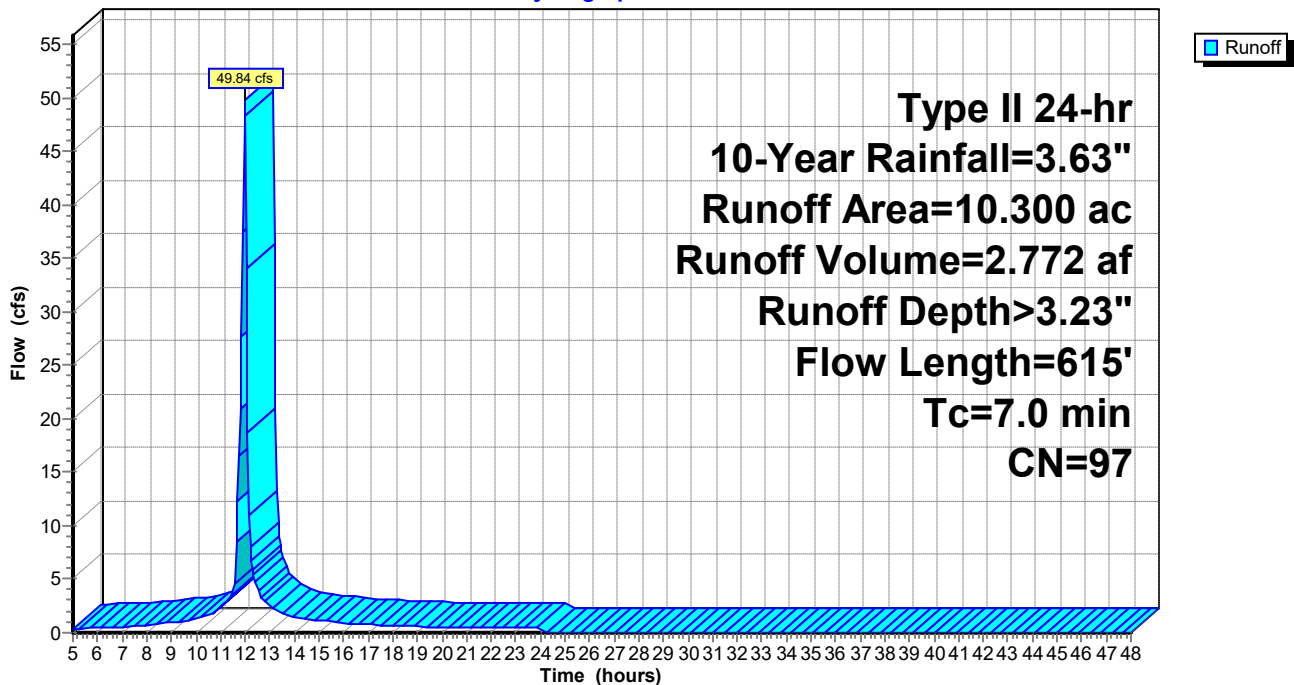
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 6.870	98	Building A
0.100	80	>75% Grass cover, Good, HSG D
* 3.330	95	Dense Graded Aggregate
10.300	97	Weighted Average
3.430		33.30% Pervious Area
6.870		66.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
3.1	300	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.6	215	0.0050	5.91	29.00	<b>Pipe Channel,</b> 30.0" Round Area= 4.9 sf Perim= 7.9' r= 0.63' n= 0.013
7.0	615	Total			

**Subcatchment DR-1: Building A & Storage**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-10: Undisturbed Area**

Runoff = 11.44 cfs @ 13.19 hrs, Volume= 2.752 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 10-Year Rainfall=3.63"

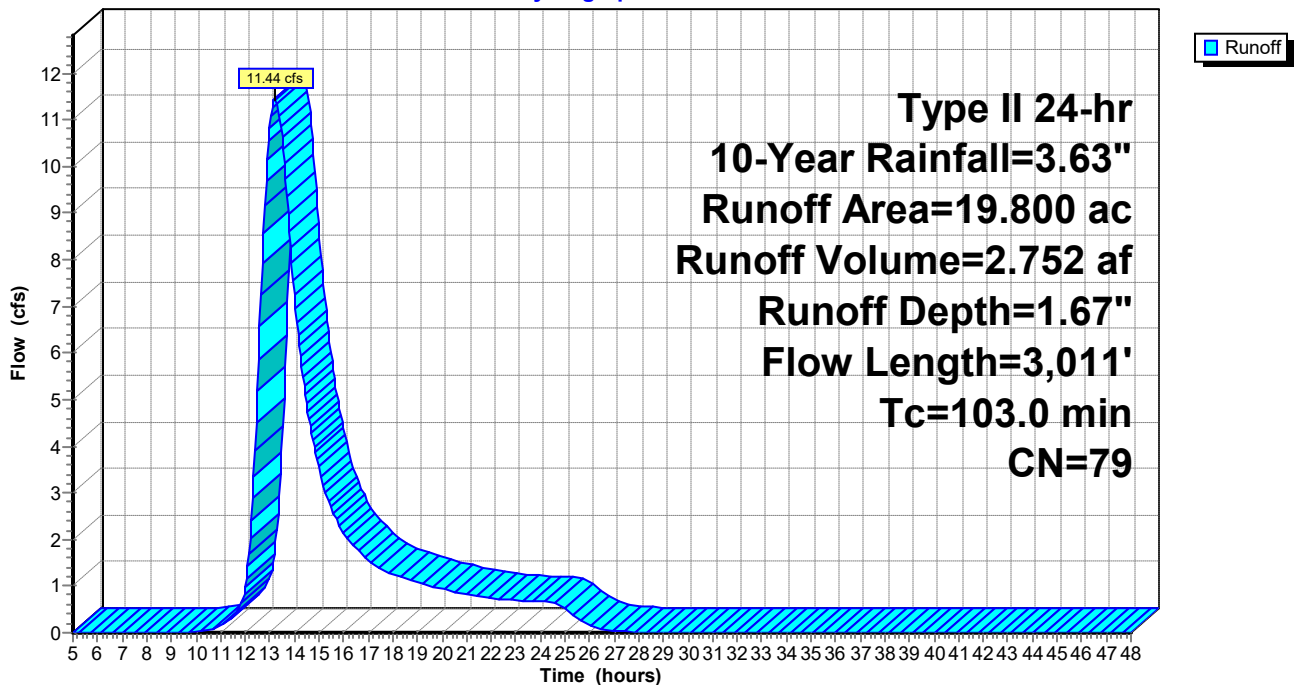
Area (ac)	CN	Description
19.800	79	Woods, Fair, HSG D
19.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	150	0.0800	0.13		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.40"
3.0	200	0.0500	1.12		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.6	250	0.2600	2.55		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
78.7	2,361	0.0100	0.50		<b>Shallow Concentrated Flow, Wetland Flow</b> Woodland Kv= 5.0 fps
0.0	50	0.0500	22.86	161.57	<b>Pipe Channel,</b> 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.012 Corrugated PP, smooth interior
103.0	3,011	Total			

**Subcatchment DR-10: Undisturbed Area**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-11: Hudson River Bank**

Runoff = 8.27 cfs @ 12.09 hrs, Volume= 0.556 af, Depth= 1.67"

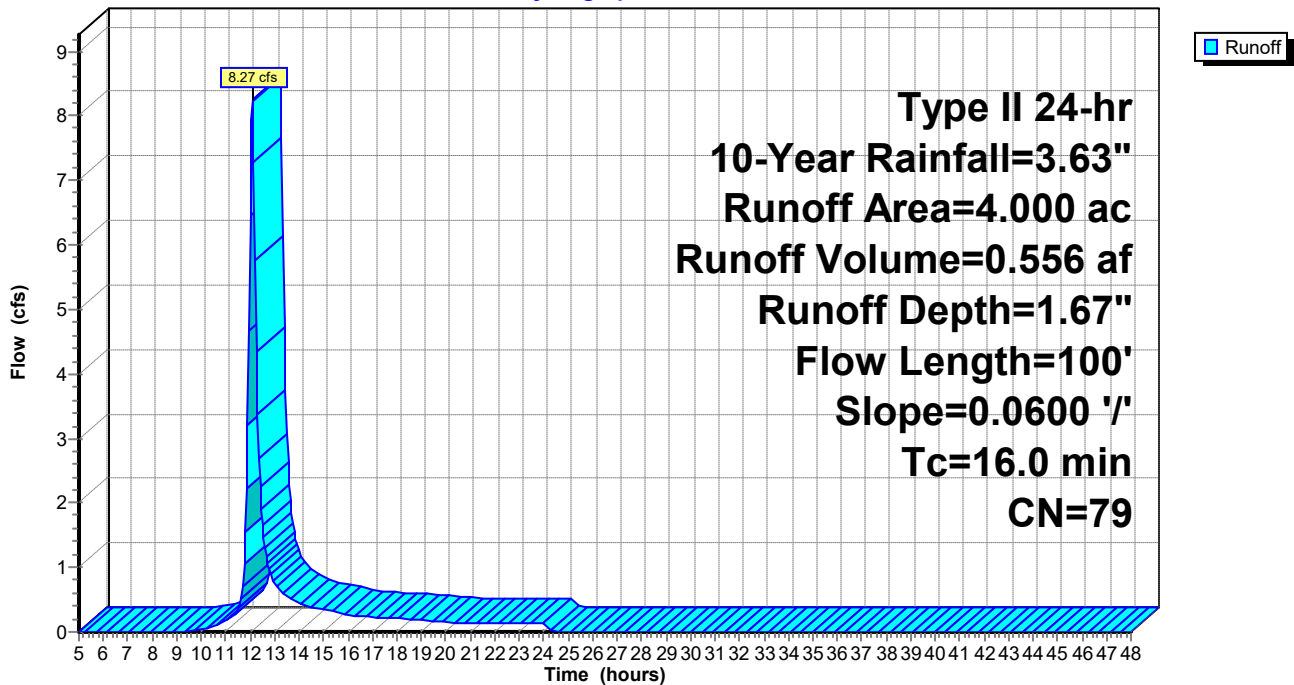
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
4.000	79	Woods, Fair, HSG D
4.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0600	0.10		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.40"

**Subcatchment DR-11: Hudson River Bank**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-12: Normans Kill Bank**

Runoff = 6.12 cfs @ 11.97 hrs, Volume= 0.311 af, Depth> 2.66"

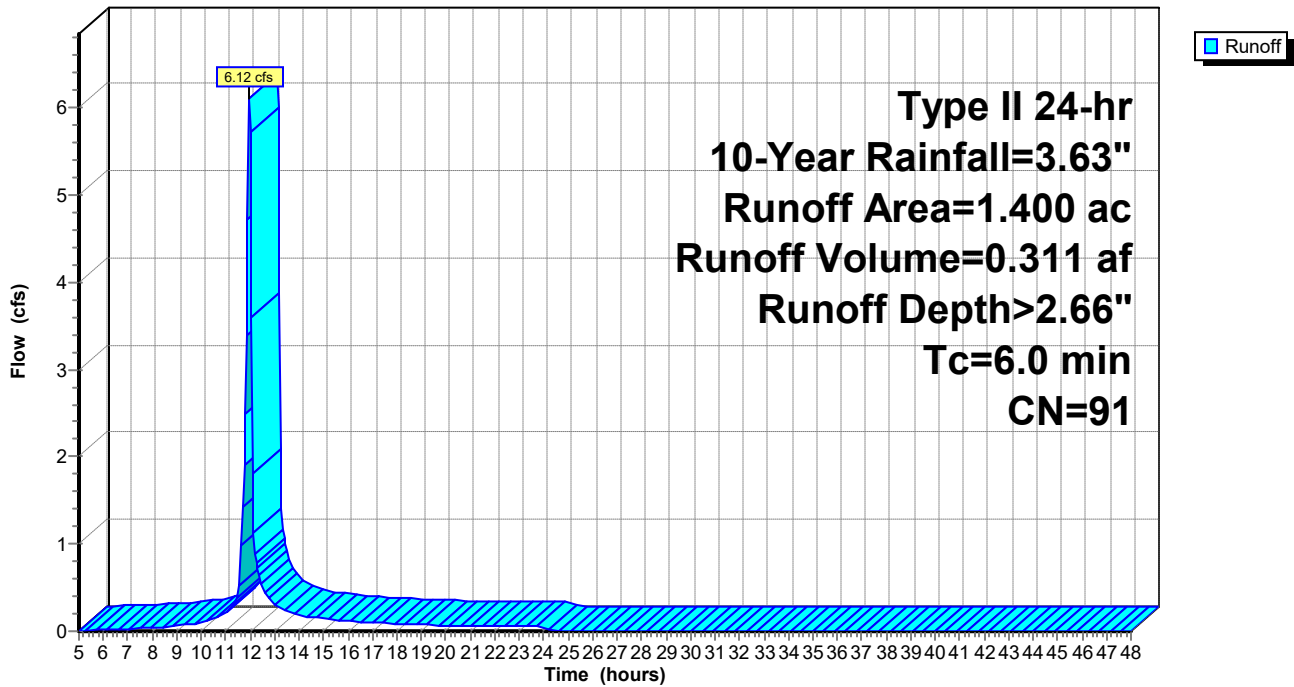
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
0.430	79	Woods, Fair, HSG D
0.970	96	Gravel surface, HSG D
1.400	91	Weighted Average
1.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-12: Normans Kill Bank**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-13: Roadway**

Runoff = 1.16 cfs @ 11.99 hrs, Volume= 0.063 af, Depth= 0.63"

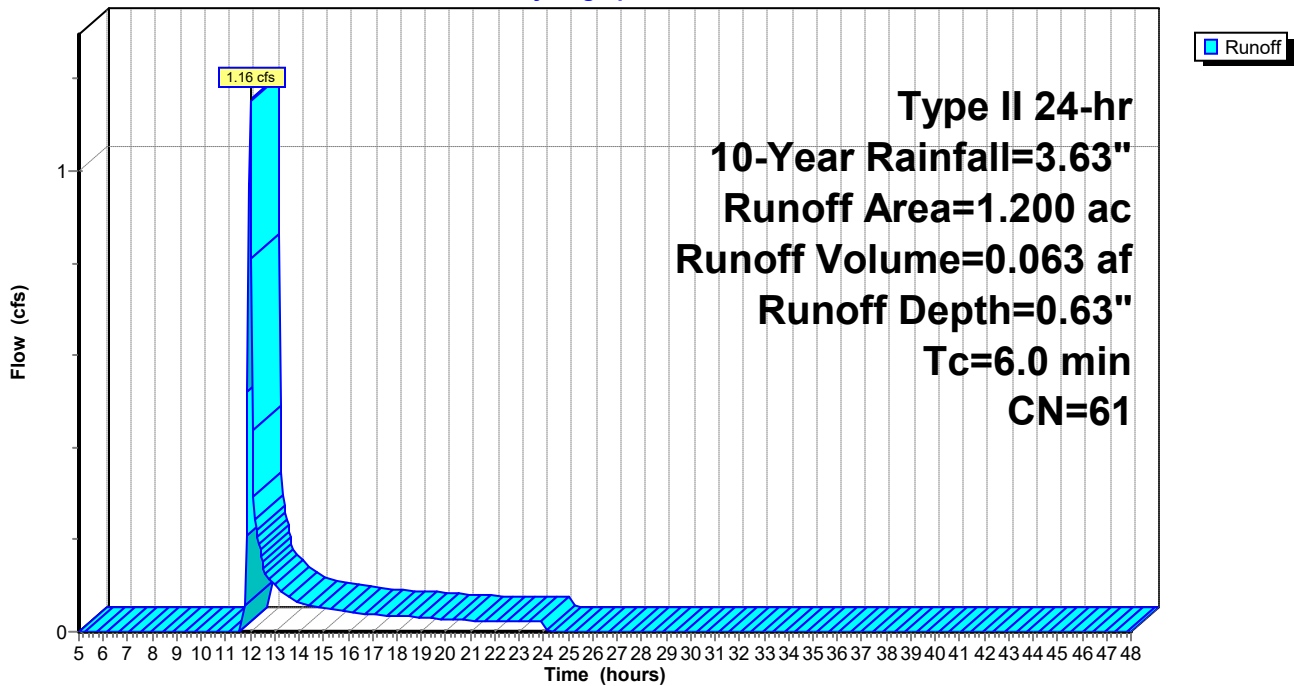
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 0.450	98	Pavement
0.750	39	>75% Grass cover, Good, HSG A
1.200	61	Weighted Average
0.750		62.50% Pervious Area
0.450		37.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-13: Roadway**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-14: Roadway**

Runoff = 2.86 cfs @ 11.98 hrs, Volume= 0.137 af, Depth= 1.27"

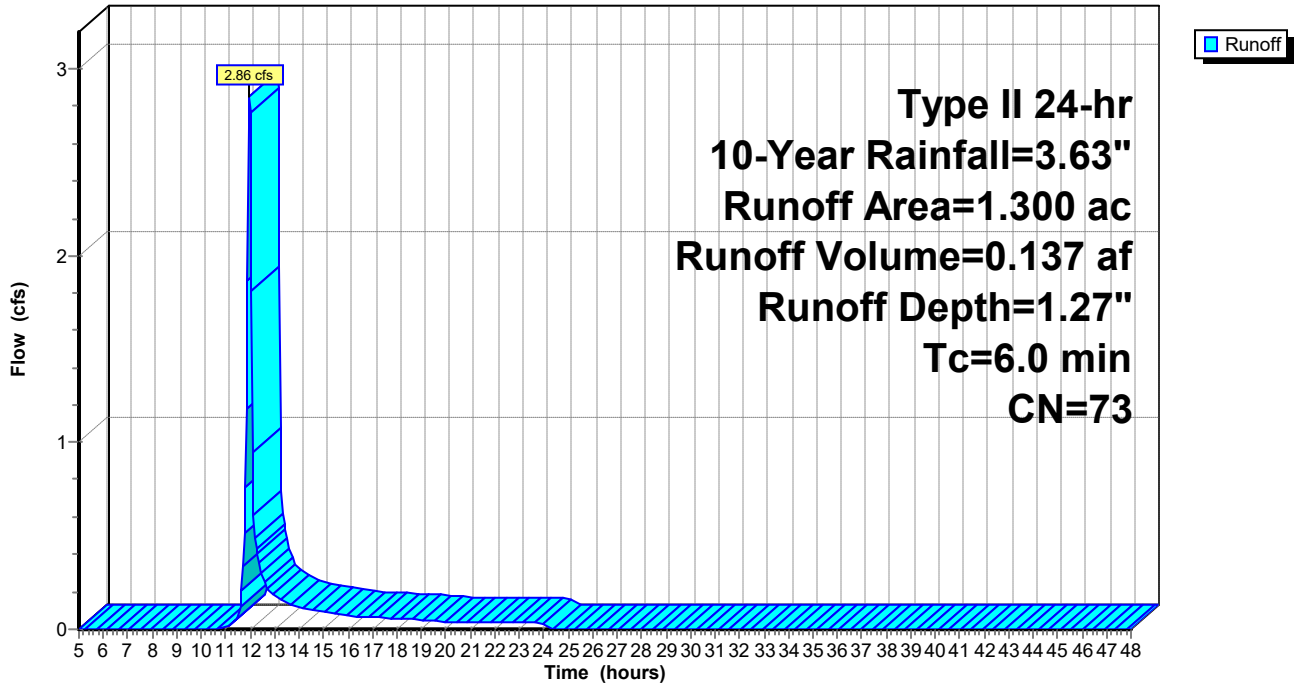
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 0.550	98	New Pavement
0.550	39	>75% Grass cover, Good, HSG A
* 0.200	98	Mill & Fill of Old Pavement
1.300	73	Weighted Average
0.550		42.31% Pervious Area
0.750		57.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-14: Roadway**

Hydrograph



**18641.00-Proposed Condition**

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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-15: Roadway**

Runoff = 4.79 cfs @ 11.96 hrs, Volume= 0.254 af, Depth> 3.05"

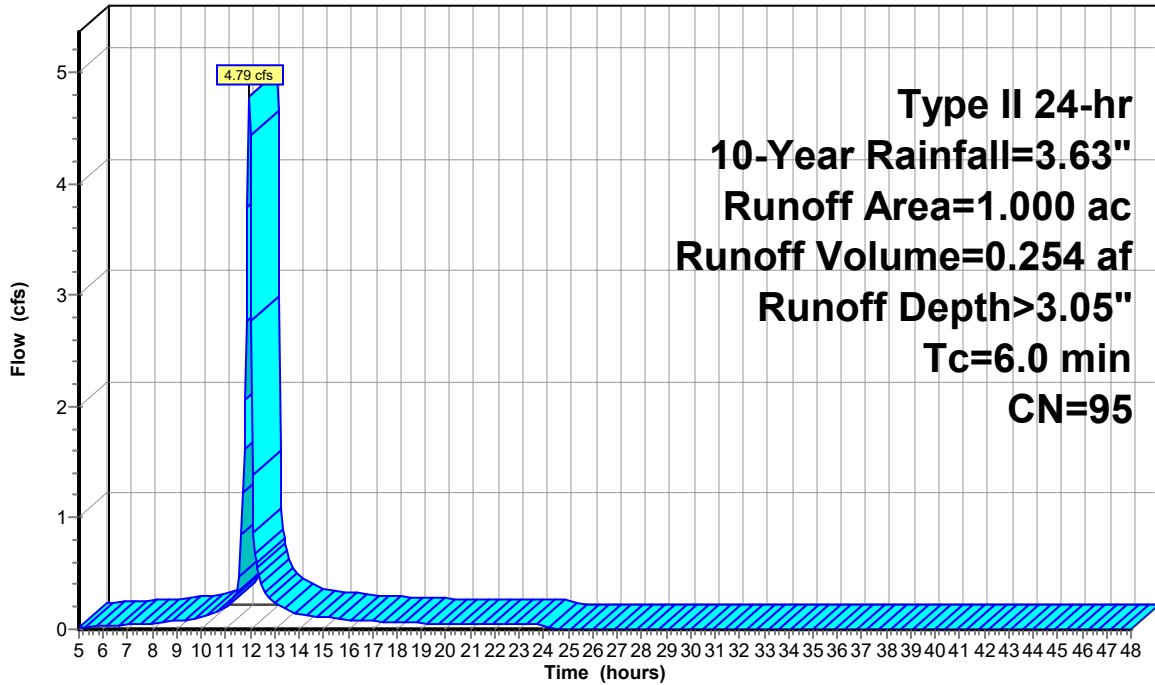
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 0.050	98	New Pavement
0.050	39	>75% Grass cover, Good, HSG A
* 0.900	98	Mill & Fill of Old Pavement
1.000	95	Weighted Average
0.050		5.00% Pervious Area
0.950		95.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-15: Roadway**

Hydrograph



Runoff



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-16: Undisturbed Area**

Runoff = 0.06 cfs @ 15.50 hrs, Volume= 0.050 af, Depth= 0.07"

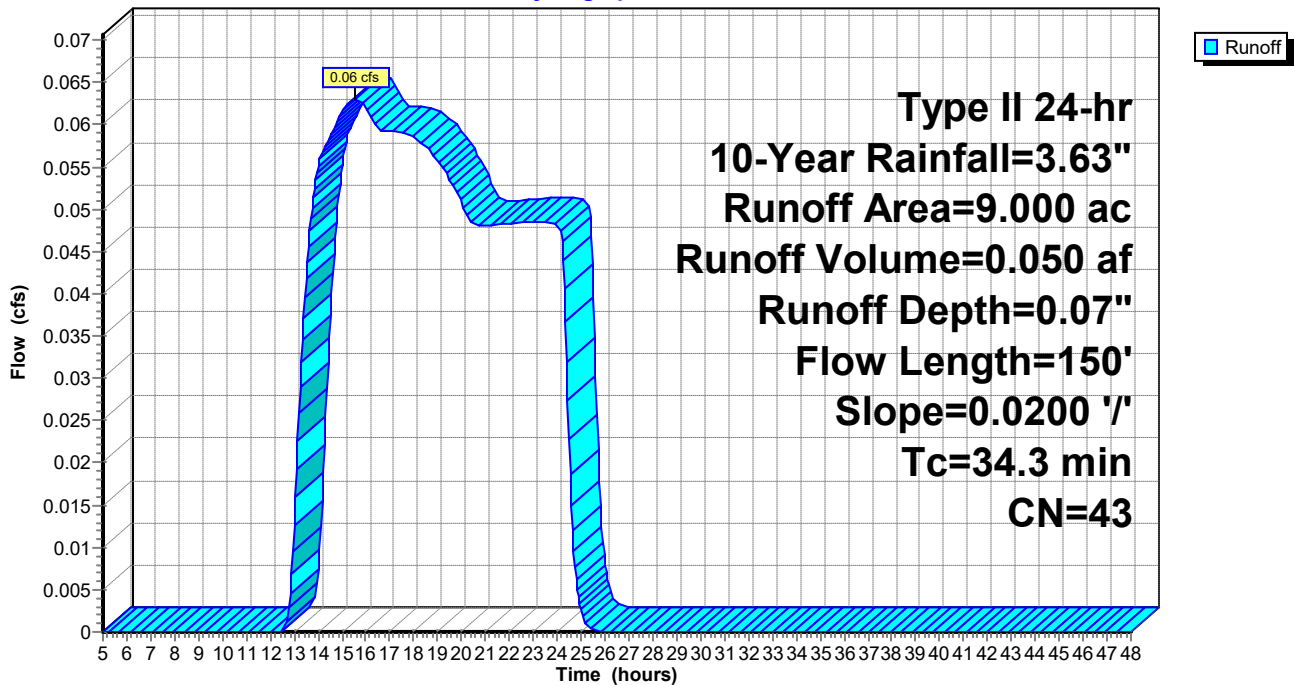
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
9.000	43	Woods/grass comb., Fair, HSG A
9.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.3	150	0.0200	0.07		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.40"

**Subcatchment DR-16: Undisturbed Area**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-17: Roadway**

Runoff = 2.85 cfs @ 11.97 hrs, Volume= 0.140 af, Depth= 2.21"

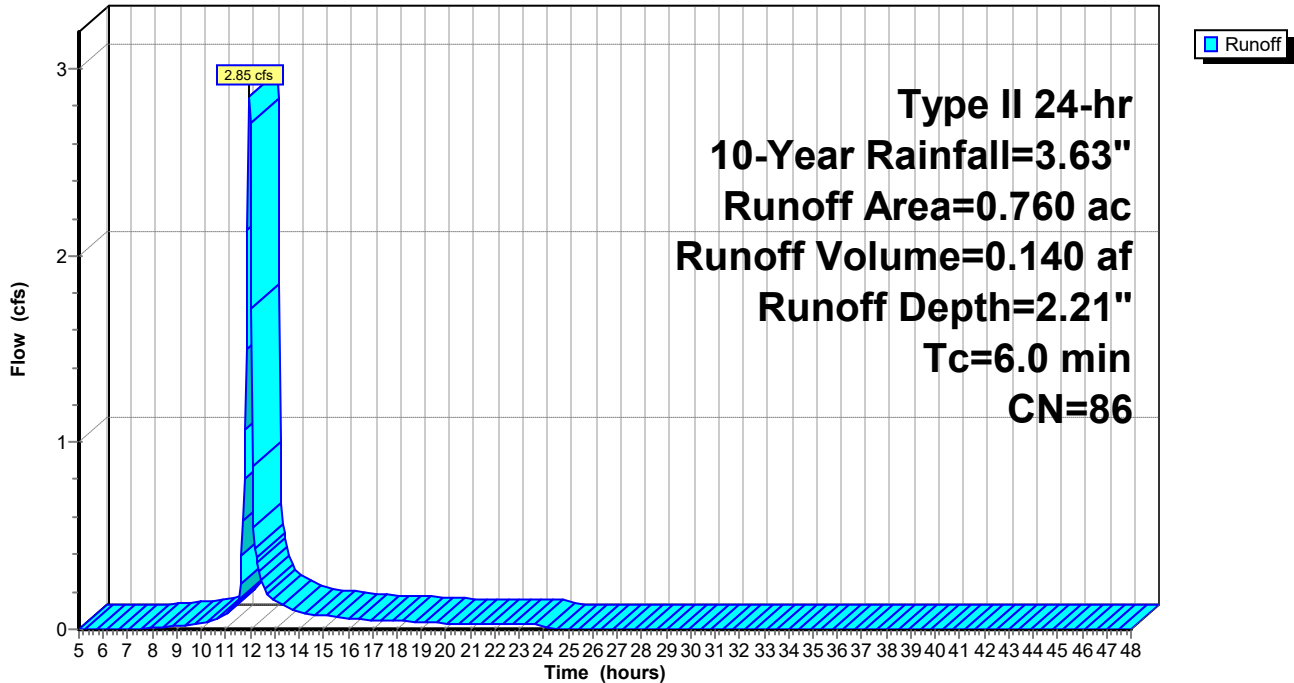
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 0.140	98	Road Widening
* 0.460	98	Roadway
0.160	39	>75% Grass cover, Good, HSG A
0.760	86	Weighted Average
0.160		21.05% Pervious Area
0.600		78.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-17: Roadway**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-2: Storage**

Runoff = 24.00 cfs @ 12.00 hrs, Volume= 1.352 af, Depth> 2.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

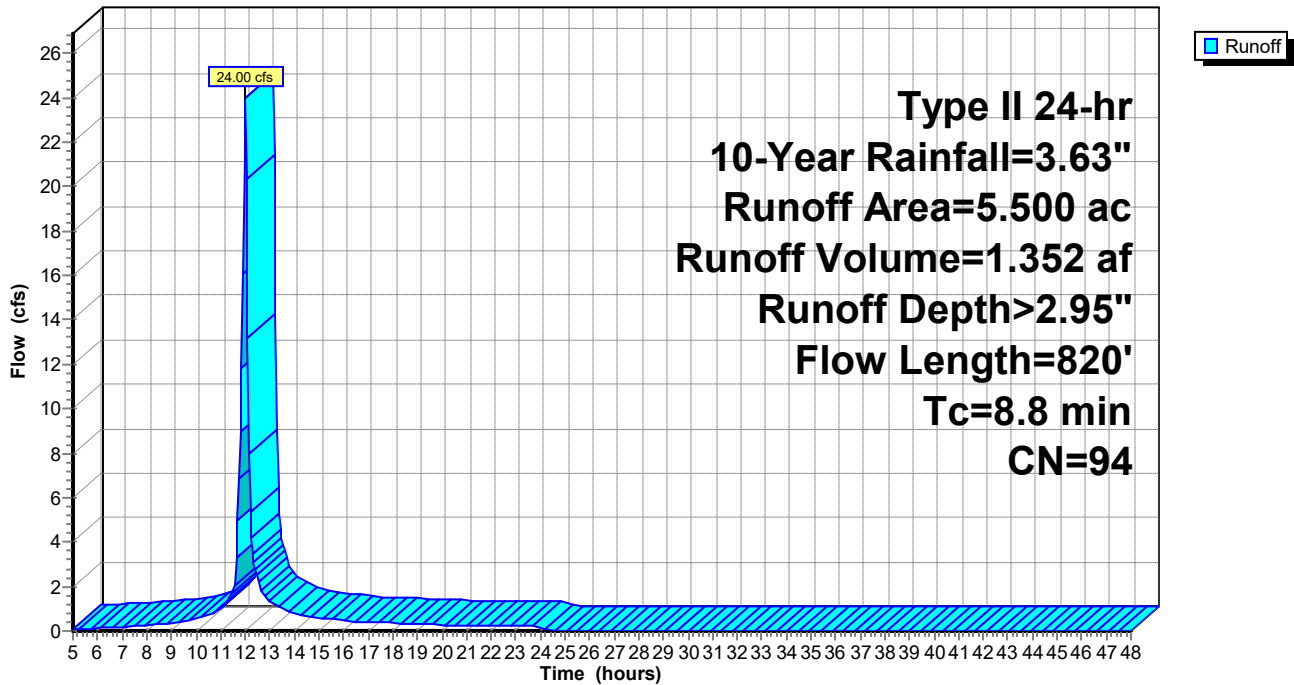
Area (ac)	CN	Description
* 5.300	95	Dense Graded Aggregate
0.200	80	>75% Grass cover, Good, HSG D
5.500	94	Weighted Average
5.500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
4.9	470	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.6	250	0.0050	6.67	47.16	<b>Pipe Channel,</b> 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.013
8.8	820	Total			

**Subcatchment DR-2: Storage**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-3: Rail & Storage**

Runoff = 47.69 cfs @ 12.00 hrs, Volume= 2.793 af, Depth> 3.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

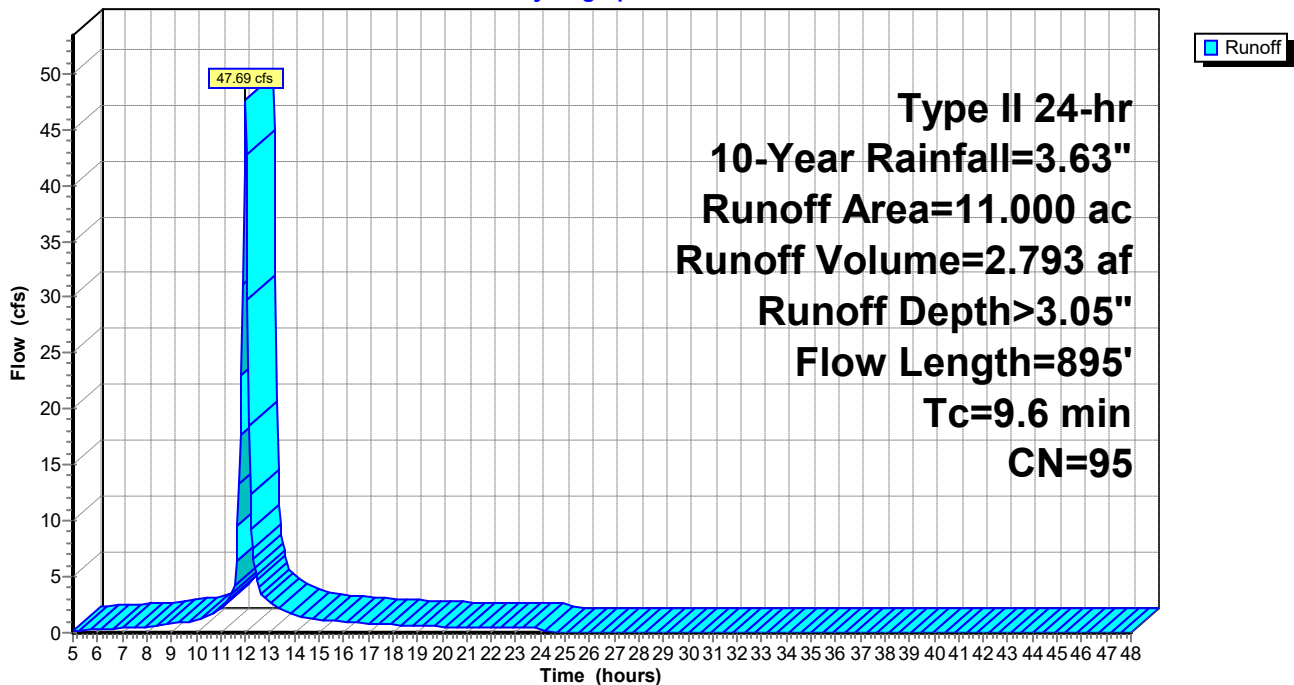
Area (ac)	CN	Description
* 8.300	95	Compacted Gravel
0.400	80	>75% Grass cover, Good, HSG D
* 2.300	98	Rail
11.000	95	Weighted Average
8.700		79.09% Pervious Area
2.300		20.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
5.4	525	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.9	270	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
9.6	895	Total			

**Subcatchment DR-3: Rail & Storage**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-4: Storage**

Runoff = 39.82 cfs @ 11.99 hrs, Volume= 2.188 af, Depth> 2.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

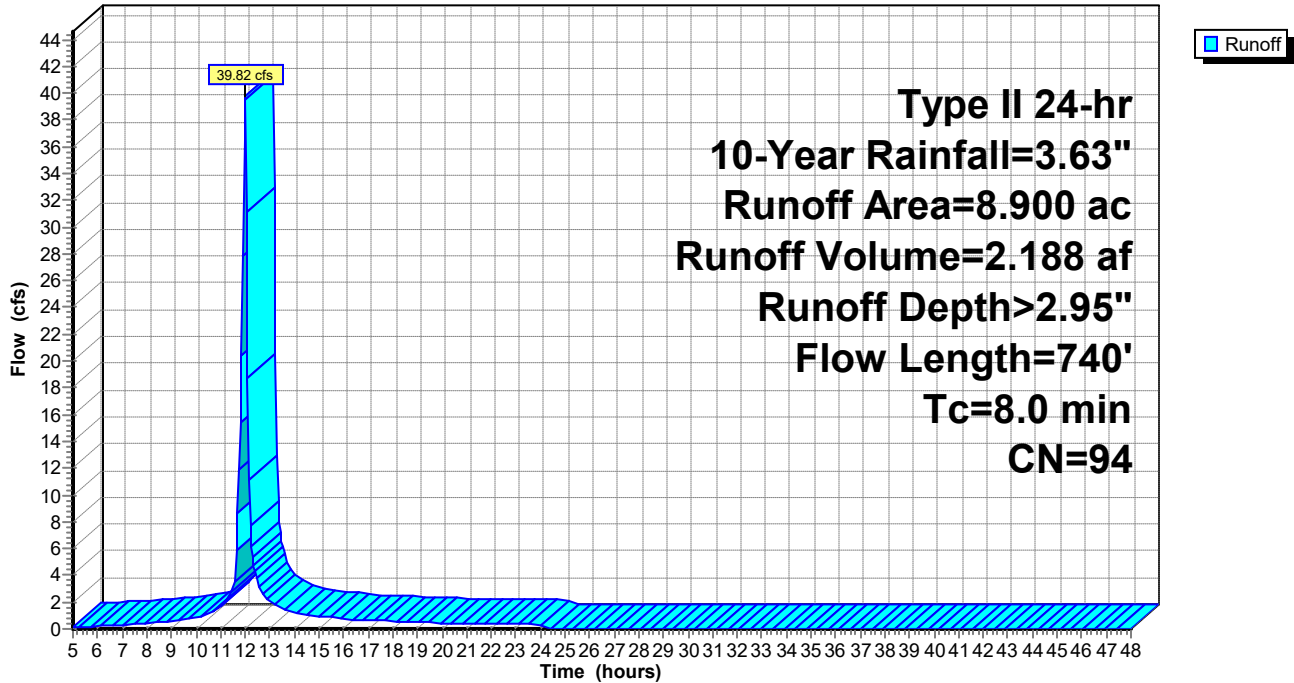
Area (ac)	CN	Description
* 8.600	95	Compacted Gravel
0.300	80	>75% Grass cover, Good, HSG D
8.900	94	Weighted Average
8.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
4.1	400	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.6	240	0.0050	6.67	47.16	<b>Pipe Channel,</b> 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.013 Corrugated PE, smooth interior
8.0	740	Total			

**Subcatchment DR-4: Storage**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-5: Storage**

Runoff = 23.53 cfs @ 11.98 hrs, Volume= 1.279 af, Depth> 2.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

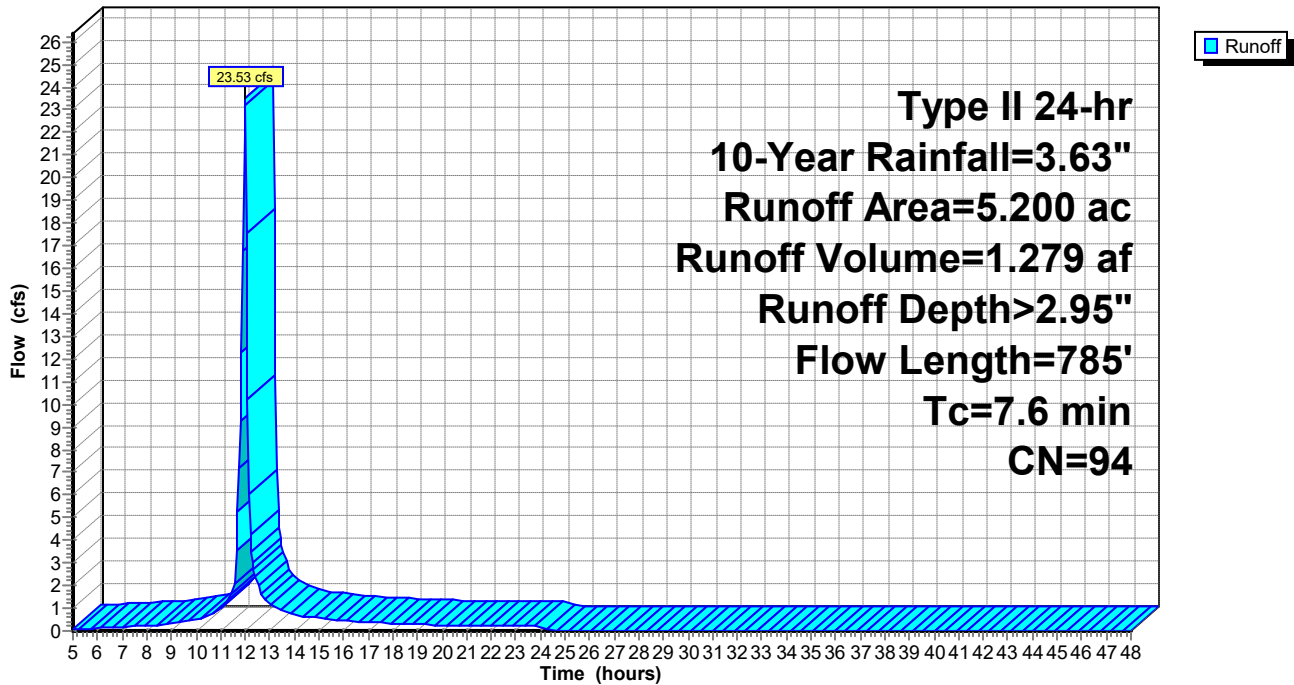
Area (ac)	CN	Description
* 4.900	95	Dense Graded Aggregate
0.300	80	>75% Grass cover, Good, HSG D
5.200	94	Weighted Average
5.200		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
3.0	285	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
1.3	400	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
7.6	785	Total			

**Subcatchment DR-5: Storage**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-6: Buldings B & D**

Runoff = 53.49 cfs @ 12.00 hrs, Volume= 3.088 af, Depth> 3.14"

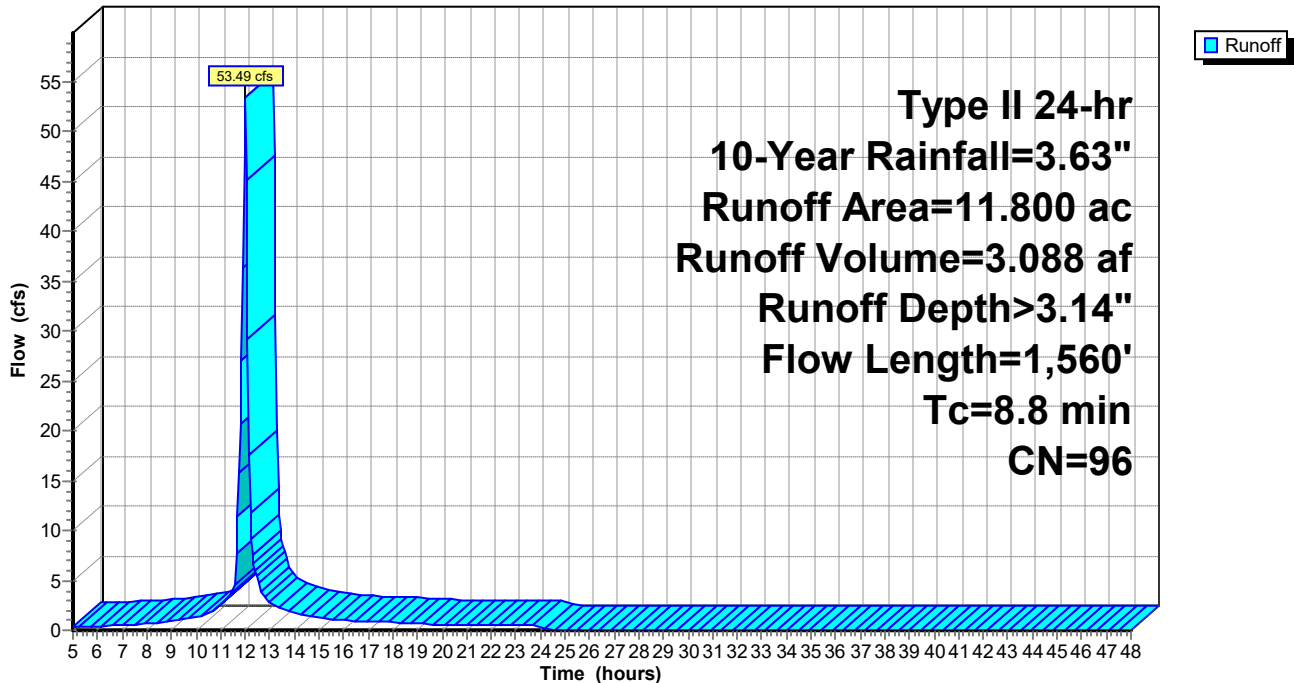
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 2.549	98	Building B
* 1.413	98	Building D
0.200	80	>75% Grass cover, Good, HSG D
* 7.638	95	Dense Graded Aggregate
11.800	96	Weighted Average
7.838		66.42% Pervious Area
3.962		33.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
1.0	100	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
4.5	1,360	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
8.8	1,560	Total			

**Subcatchment DR-6: Buldings B & D**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-7: Building C & Rail**

Runoff = 38.26 cfs @ 12.00 hrs, Volume= 2.277 af, Depth> 3.14"

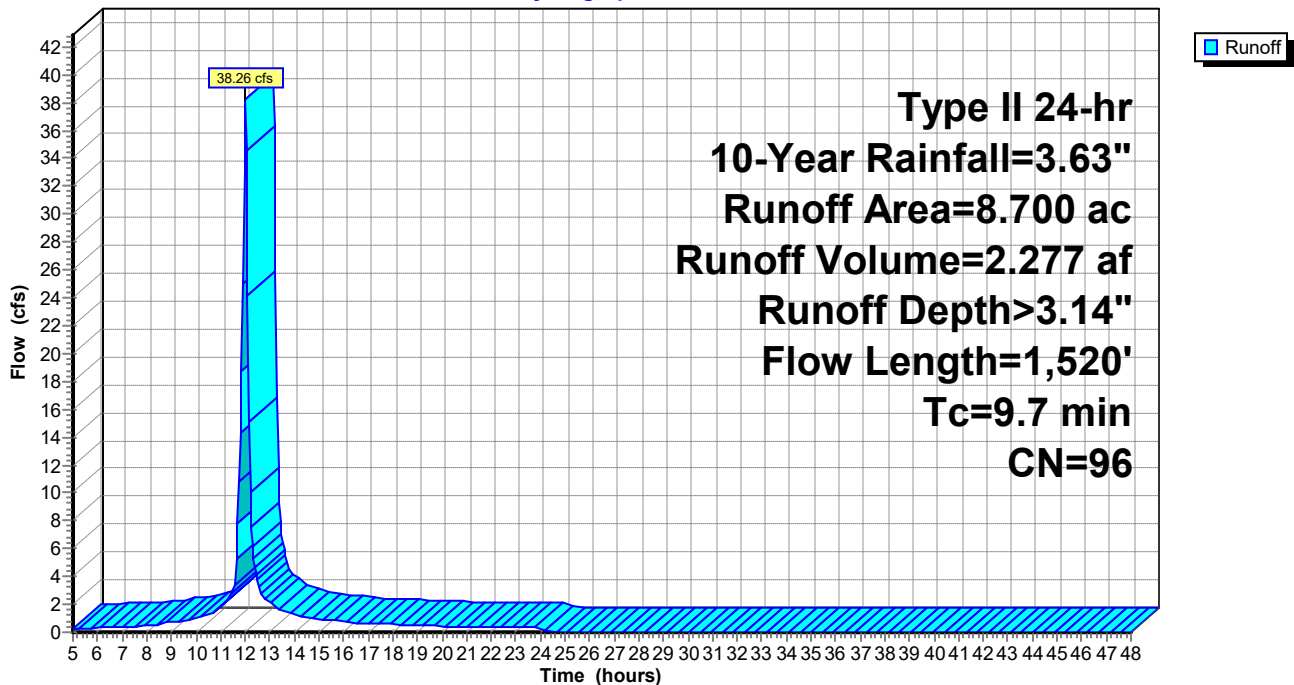
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 3.030	98	Building C
* 0.970	98	Rail
* 4.400	95	Dense Graded Aggregate
0.300	80	>75% Grass cover, Good, HSG D
8.700	96	Weighted Average
4.700		54.02% Pervious Area
4.000		45.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
2.6	250	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
3.8	1,170	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
9.7	1,520	Total			

**Subcatchment DR-7: Building C & Rail**

Hydrograph





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**Summary for Subcatchment DR-8A: Parking**

Runoff = 9.10 cfs @ 11.96 hrs, Volume= 0.482 af, Depth> 3.05"

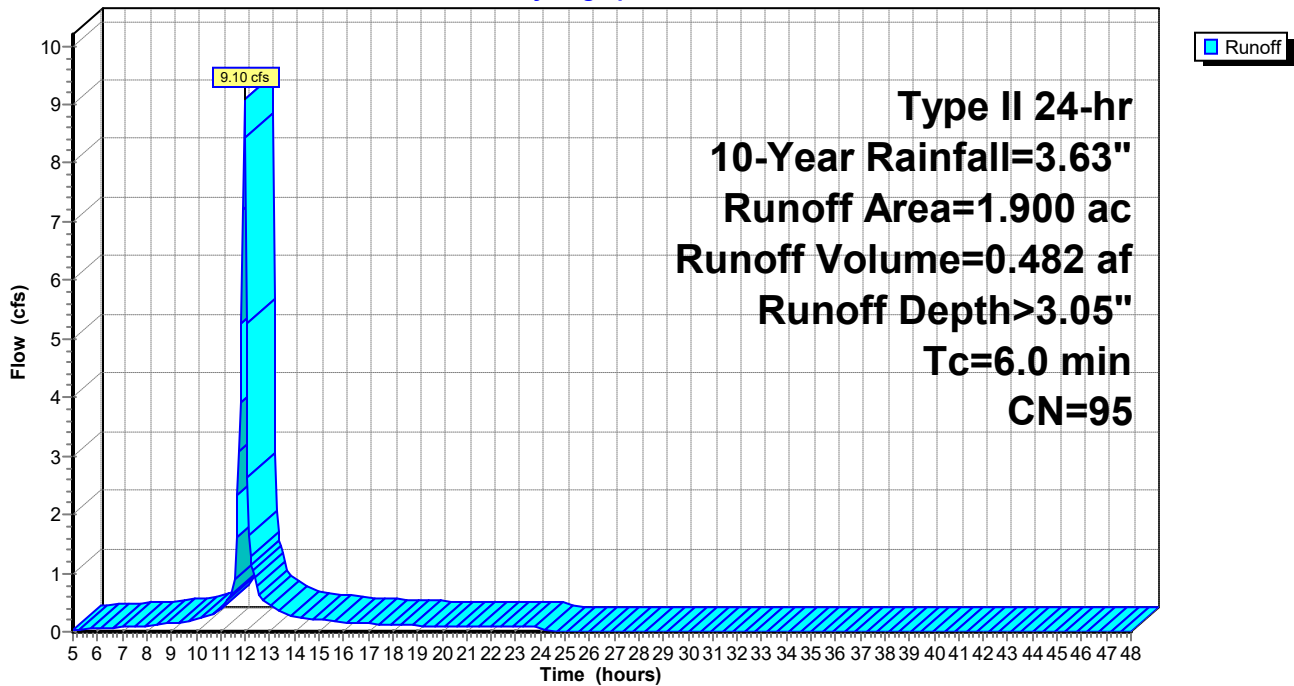
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 1.600	98	Parking
0.300	80	>75% Grass cover, Good, HSG D
1.900	95	Weighted Average
0.300		15.79% Pervious Area
1.600		84.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-8A: Parking**

Hydrograph



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**Summary for Subcatchment DR-8B: Roadway & Pond**

Runoff = 3.63 cfs @ 11.97 hrs, Volume= 0.178 af, Depth= 2.13"

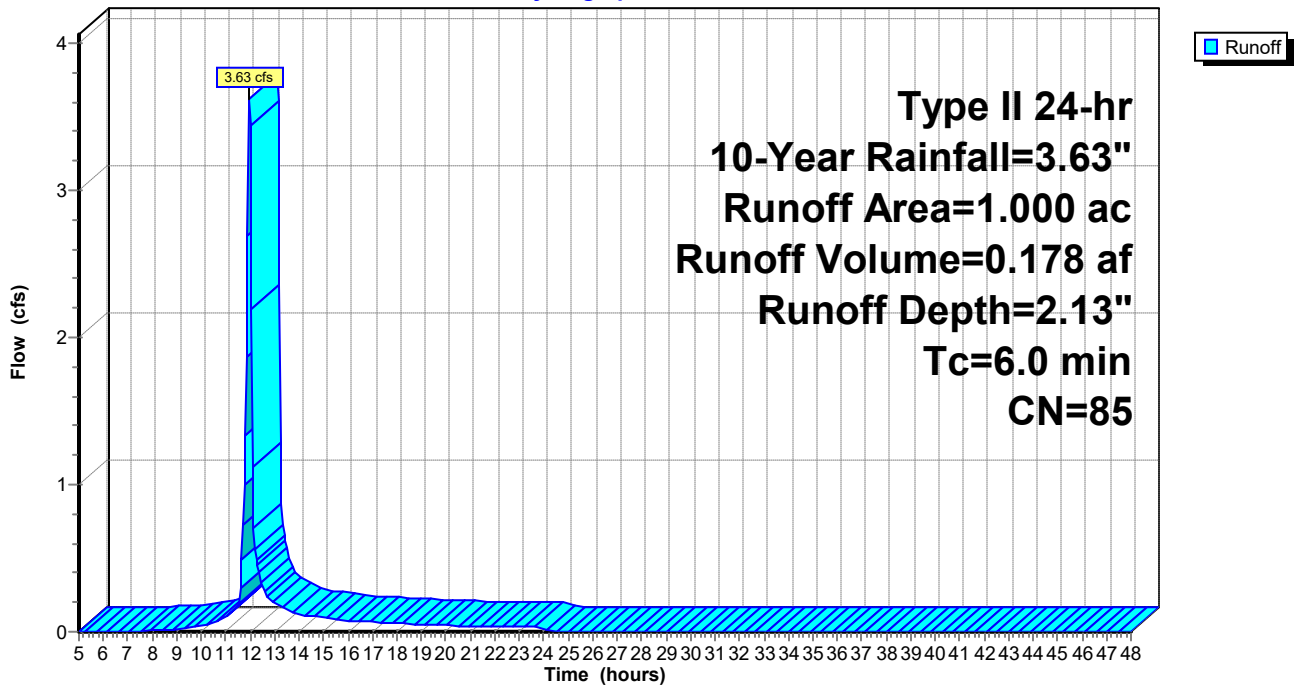
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 0.300	98	Roadway
0.700	80	>75% Grass cover, Good, HSG D
1.000	85	Weighted Average
0.700		70.00% Pervious Area
0.300		30.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-8B: Roadway & Pond**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Subcatchment DR-9A: Parking & Substation**

Runoff = 7.03 cfs @ 12.04 hrs, Volume= 0.457 af, Depth> 3.05"

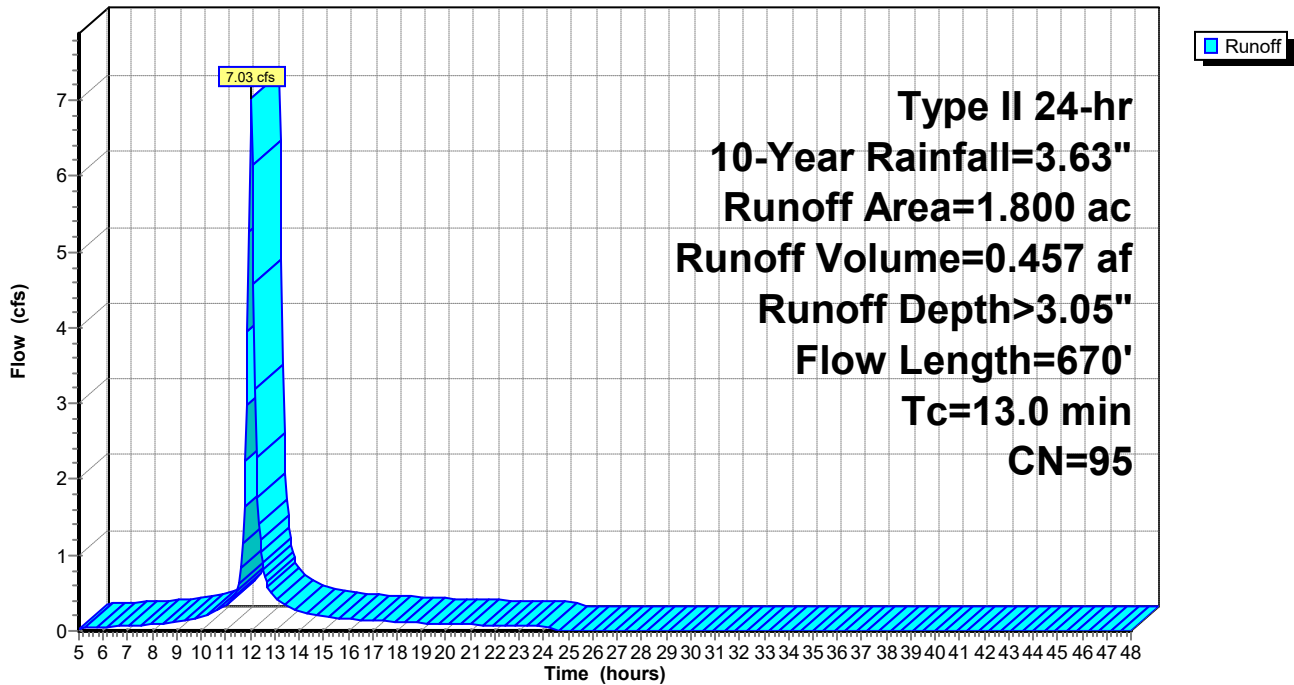
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
0.230	80	>75% Grass cover, Good, HSG D
* 0.200	92	Compacted Gravel
* 1.200	98	Parking and Road
* 0.170	98	Substation
1.800	95	Weighted Average
0.430		23.89% Pervious Area
1.370		76.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0200	1.19		<b>Sheet Flow, Parking Lot Runoff</b> Smooth surfaces n= 0.011 P2= 2.40"
11.6	570	0.0030	0.82		<b>Shallow Concentrated Flow, Grass Lined Ditch to Pond</b> Grassed Waterway Kv= 15.0 fps
13.0	670	Total			

**Subcatchment DR-9A: Parking & Substation**

Hydrograph



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**Summary for Subcatchment DR-9B: Roadway**

Runoff = 15.47 cfs @ 11.96 hrs, Volume= 0.738 af, Depth= 2.21"

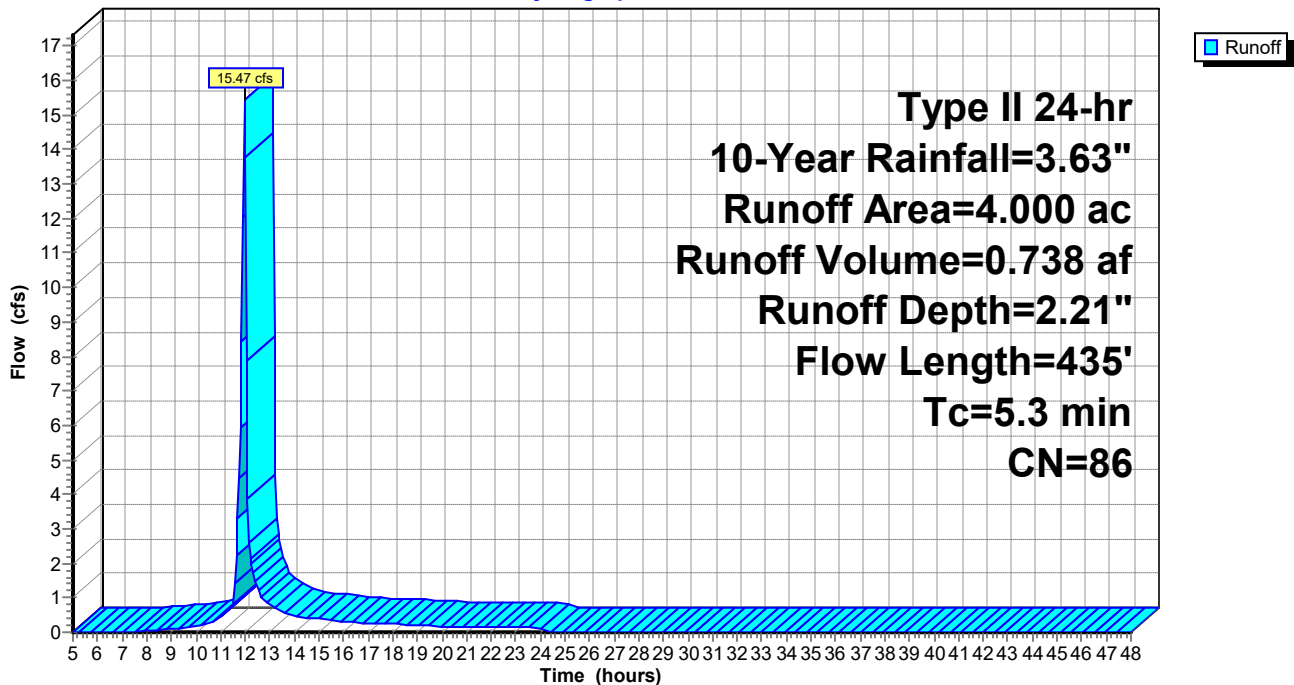
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 1.050	95	Dense Graded Aggregate
* 0.480	98	Roadway
2.470	80	>75% Grass cover, Good, HSG D
4.000	86	Weighted Average
3.520		88.00% Pervious Area
0.480		12.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	100	0.0250	0.46		<b>Sheet Flow, Dense Graded Aggregate Yard</b> n= 0.040 P2= 2.40"
1.3	230	0.0100	3.07	9.20	<b>Channel Flow, Grass lined ditch</b> Area= 3.0 sf Perim= 4.0' r= 0.75' n= 0.040 Earth, cobble bottom, clean sides
0.4	105	0.0050	4.20	7.43	<b>Pipe Channel, driveway culvert</b> 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
5.3	435	Total			

**Subcatchment DR-9B: Roadway**

Hydrograph



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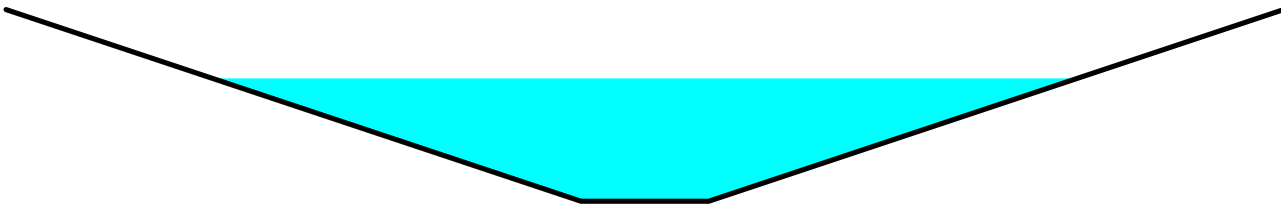
**Summary for Reach 1R: Swale**

Inflow Area = 1.900 ac, 84.21% Impervious, Inflow Depth > 3.05" for 10-Year event  
 Inflow = 9.10 cfs @ 11.96 hrs, Volume= 0.482 af  
 Outflow = 7.58 cfs @ 12.11 hrs, Volume= 0.482 af, Atten= 17%, Lag= 8.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 2.05 fps, Min. Travel Time= 5.6 min  
 Avg. Velocity = 0.60 fps, Avg. Travel Time= 19.1 min

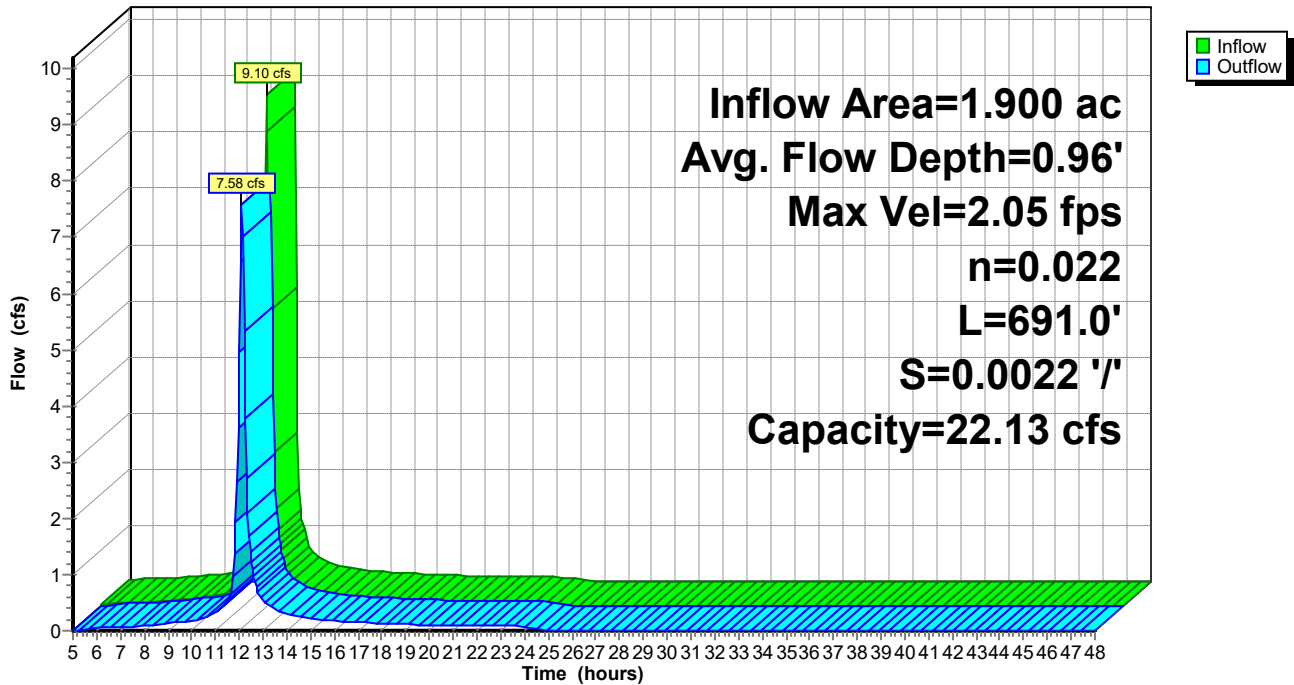
Peak Storage= 2,580 cf @ 12.01 hrs  
 Average Depth at Peak Storage= 0.96' , Surface Width= 6.77'  
 Bank-Full Depth= 1.50' Flow Area= 8.3 sf, Capacity= 22.13 cfs

1.00' x 1.50' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 ' / ' Top Width= 10.00'  
 Length= 691.0' Slope= 0.0022 ' / '  
 Inlet Invert= 15.50', Outlet Invert= 14.00'



**Reach 1R: Swale**

Hydrograph



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**Summary for Reach 1W: Wetland #1**

Inflow Area = 28.500 ac, 13.16% Impervious, Inflow Depth > 1.93" for 10-Year event  
 Inflow = 12.46 cfs @ 13.19 hrs, Volume= 4.580 af  
 Outflow = 5.16 cfs @ 17.95 hrs, Volume= 4.375 af, Atten= 59%, Lag= 285.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.09 fps, Min. Travel Time= 192.2 min  
 Avg. Velocity = 0.04 fps, Avg. Travel Time= 405.2 min

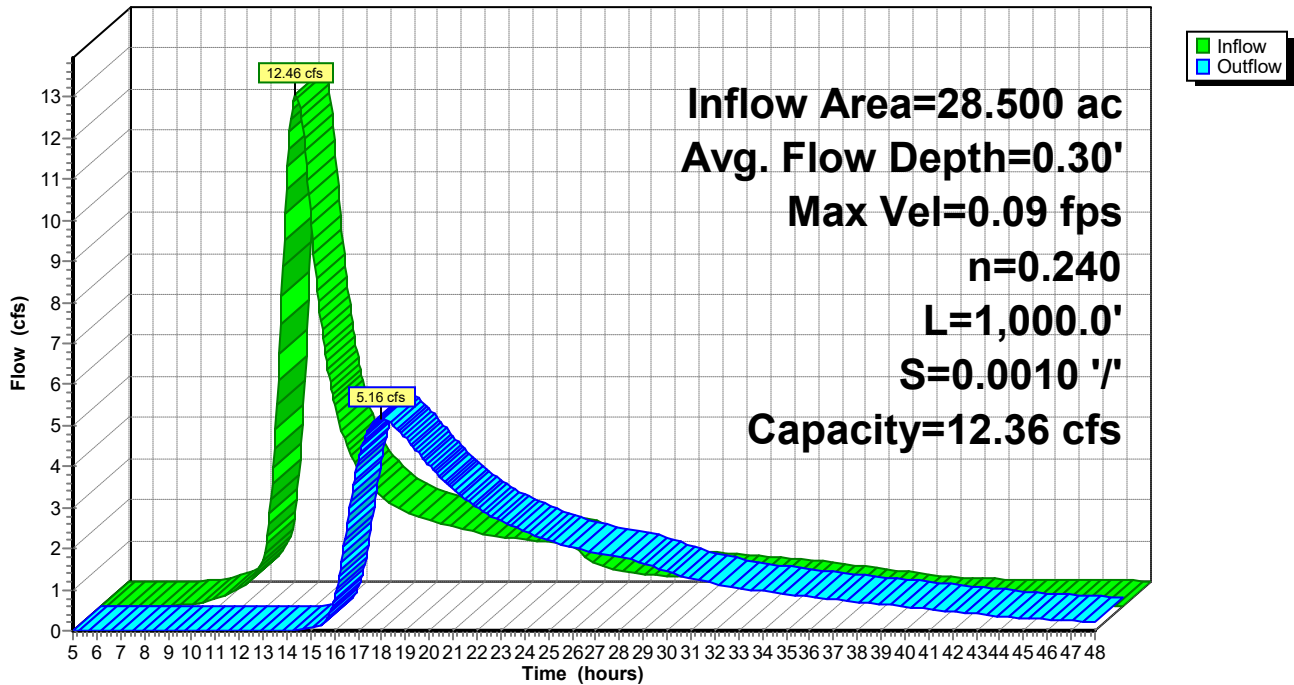
Peak Storage= 59,517 cf @ 14.75 hrs  
 Average Depth at Peak Storage= 0.30' , Surface Width= 201.78'  
 Bank-Full Depth= 0.50' Flow Area= 100.8 sf, Capacity= 12.36 cfs

200.00' x 0.50' deep channel, n= 0.240  
 Side Slope Z-value= 3.0 '/' Top Width= 203.00'  
 Length= 1,000.0' Slope= 0.0010 '/'  
 Inlet Invert= 6.00', Outlet Invert= 5.00'



**Reach 1W: Wetland #1**

**Hydrograph**



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## Summary for Reach 2R: Overflow

Inflow Area = 5.800 ac, 31.90% Impervious, Inflow Depth > 2.44" for 10-Year event  
Inflow = 0.64 cfs @ 14.61 hrs, Volume= 1.181 af  
Outflow = 0.64 cfs @ 14.63 hrs, Volume= 1.181 af, Atten= 0%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 1.22 fps, Min. Travel Time= 0.7 min  
Avg. Velocity = 1.22 fps, Avg. Travel Time= 0.7 min

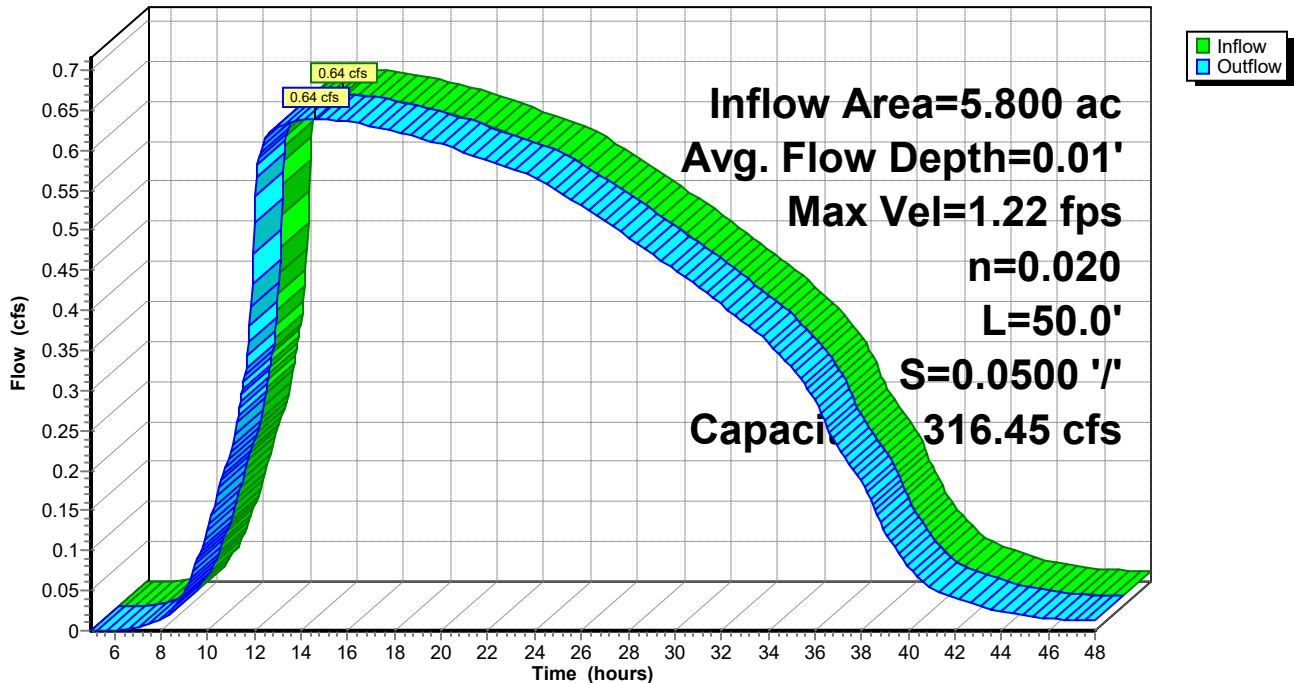
Peak Storage= 26 cf @ 14.62 hrs  
Average Depth at Peak Storage= 0.01' , Surface Width= 80.04'  
Bank-Full Depth= 2.00' Flow Area= 172.0 sf, Capacity= 4,316.45 cfs

80.00' x 2.00' deep channel, n= 0.020 Corrugated PE, corrugated interior  
Side Slope Z-value= 3.0 ' / ' Top Width= 92.00'  
Length= 50.0' Slope= 0.0500 ' / '  
Inlet Invert= 16.50', Outlet Invert= 14.00'



## Reach 2R: Overflow

### Hydrograph



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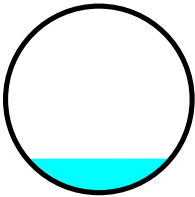
**Summary for Reach 3R: Outlet Pipe**

Inflow Area = 28.500 ac, 13.16% Impervious, Inflow Depth > 1.84" for 10-Year event  
 Inflow = 5.16 cfs @ 17.95 hrs, Volume= 4.375 af  
 Outflow = 5.16 cfs @ 17.96 hrs, Volume= 4.375 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 4.73 fps, Min. Travel Time= 0.2 min  
 Avg. Velocity = 2.80 fps, Avg. Travel Time= 0.4 min

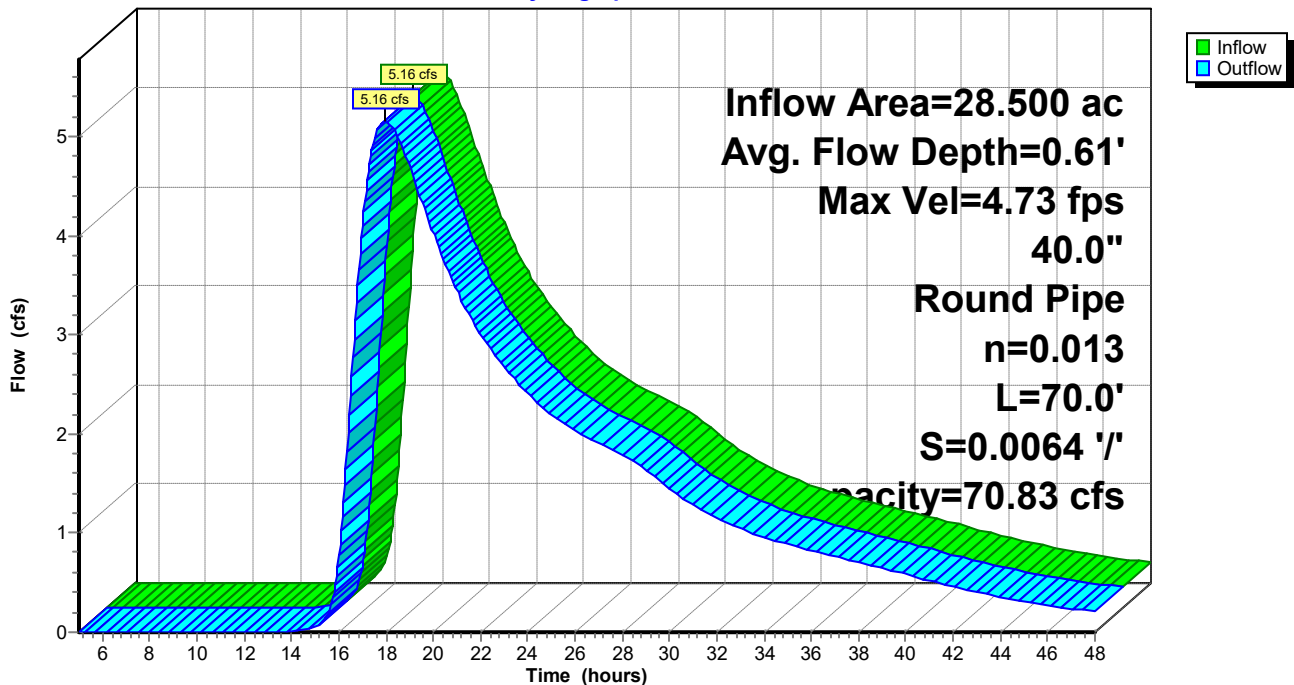
Peak Storage= 76 cf @ 17.96 hrs  
 Average Depth at Peak Storage= 0.61' , Surface Width= 2.58'  
 Bank-Full Depth= 3.33' Flow Area= 8.7 sf, Capacity= 70.83 cfs

40.0" Round Pipe  
 n= 0.013 Corrugated PE, smooth interior  
 Length= 70.0' Slope= 0.0064 '/'  
 Inlet Invert= 4.25', Outlet Invert= 3.80'



**Reach 3R: Outlet Pipe**

Hydrograph





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**Summary for Reach 4R: Overflow**

Inflow Area = 1.000 ac, 95.00% Impervious, Inflow Depth > 3.05" for 10-Year event  
 Inflow = 4.69 cfs @ 11.98 hrs, Volume= 0.254 af  
 Outflow = 4.56 cfs @ 12.00 hrs, Volume= 0.254 af, Atten= 3%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 2.73 fps, Min. Travel Time= 0.6 min  
 Avg. Velocity = 0.70 fps, Avg. Travel Time= 2.4 min

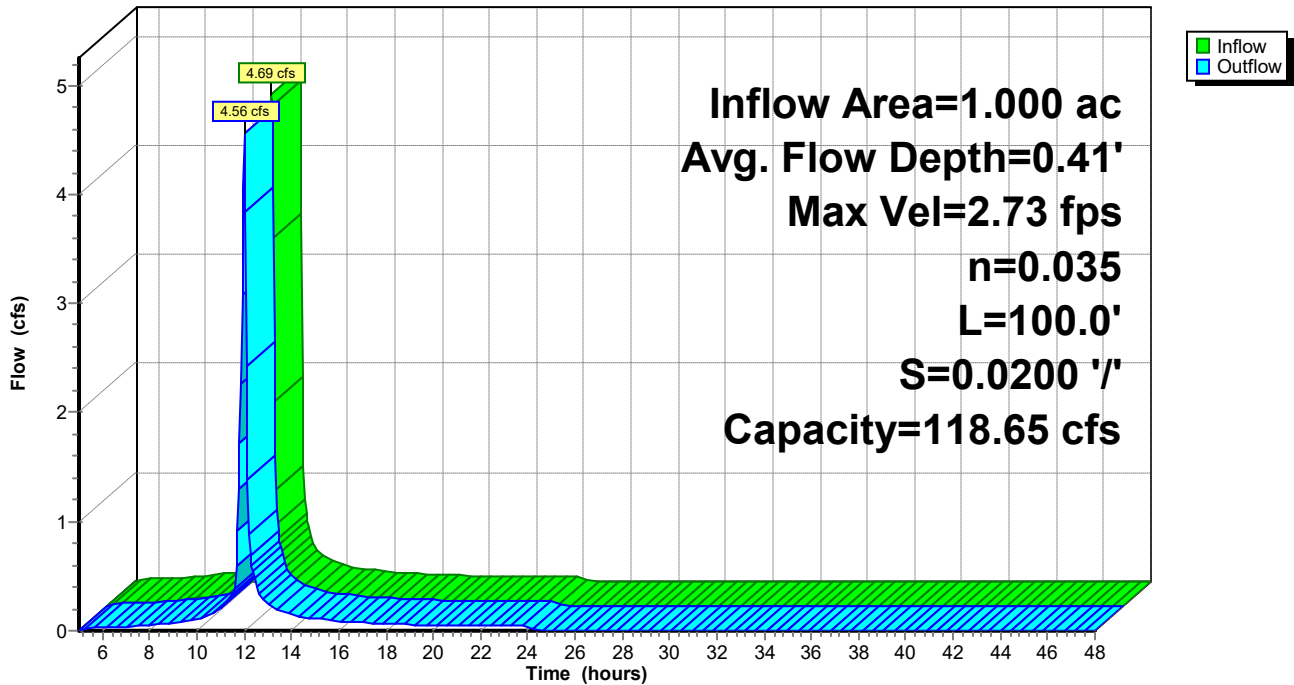
Peak Storage= 171 cf @ 11.99 hrs  
 Average Depth at Peak Storage= 0.41' , Surface Width= 5.43'  
 Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 118.65 cfs

3.00' x 2.00' deep channel, n= 0.035 Riprap, 6-inch  
 Side Slope Z-value= 3.0 '/' Top Width= 15.00'  
 Length= 100.0' Slope= 0.0200 '/'  
 Inlet Invert= 12.00', Outlet Invert= 10.00'



**Reach 4R: Overflow**

Hydrograph



**18641.00-Proposed Condition**

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**Summary for Reach 5R: Overflow**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 0.00" for 10-Year event  
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af  
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min  
Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

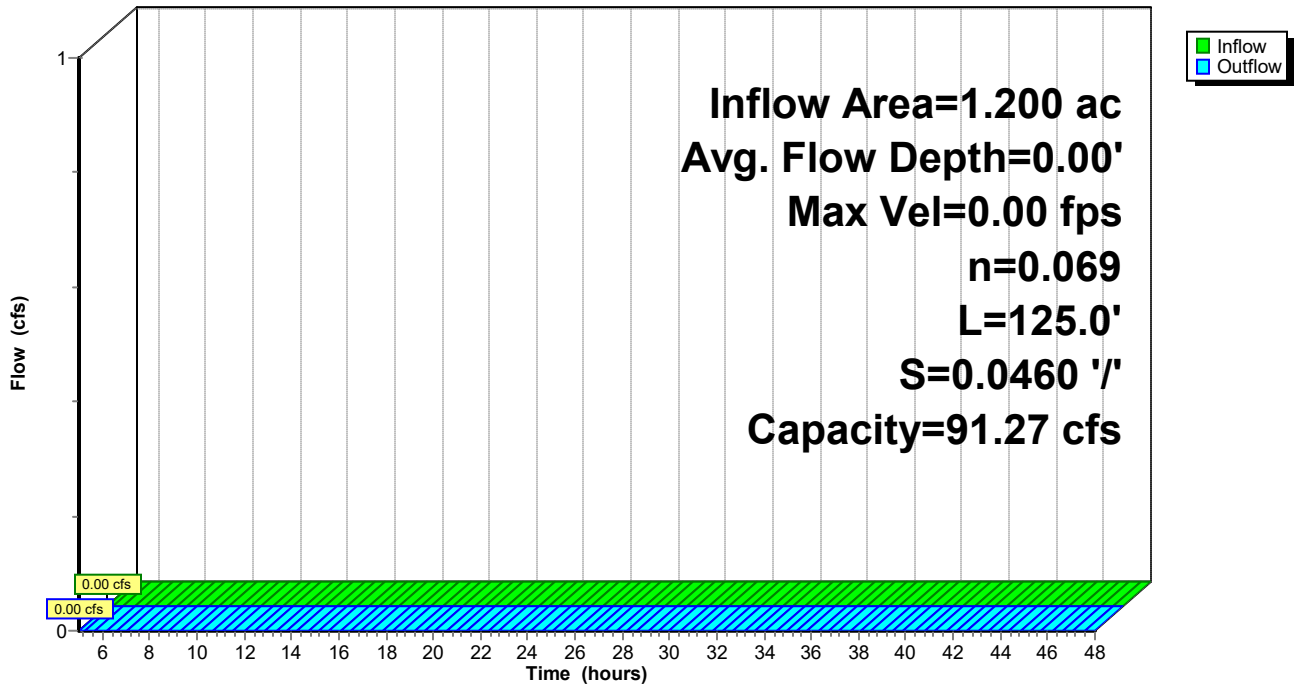
Peak Storage= 0 cf @ 5.00 hrs  
Average Depth at Peak Storage= 0.00'  
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 91.27 cfs

3.00' x 2.00' deep channel, n= 0.069 Riprap, 6-inch  
Side Slope Z-value= 3.0 '/' Top Width= 15.00'  
Length= 125.0' Slope= 0.0460 '/'  
Inlet Invert= 11.75', Outlet Invert= 6.00'



**Reach 5R: Overflow**

Hydrograph



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**Summary for Reach 6R: Overflow**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 0.78" for 10-Year event  
 Inflow = 1.13 cfs @ 12.35 hrs, Volume= 0.085 af  
 Outflow = 1.04 cfs @ 12.38 hrs, Volume= 0.085 af, Atten= 8%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 1.78 fps, Min. Travel Time= 1.0 min  
 Avg. Velocity = 0.60 fps, Avg. Travel Time= 2.9 min

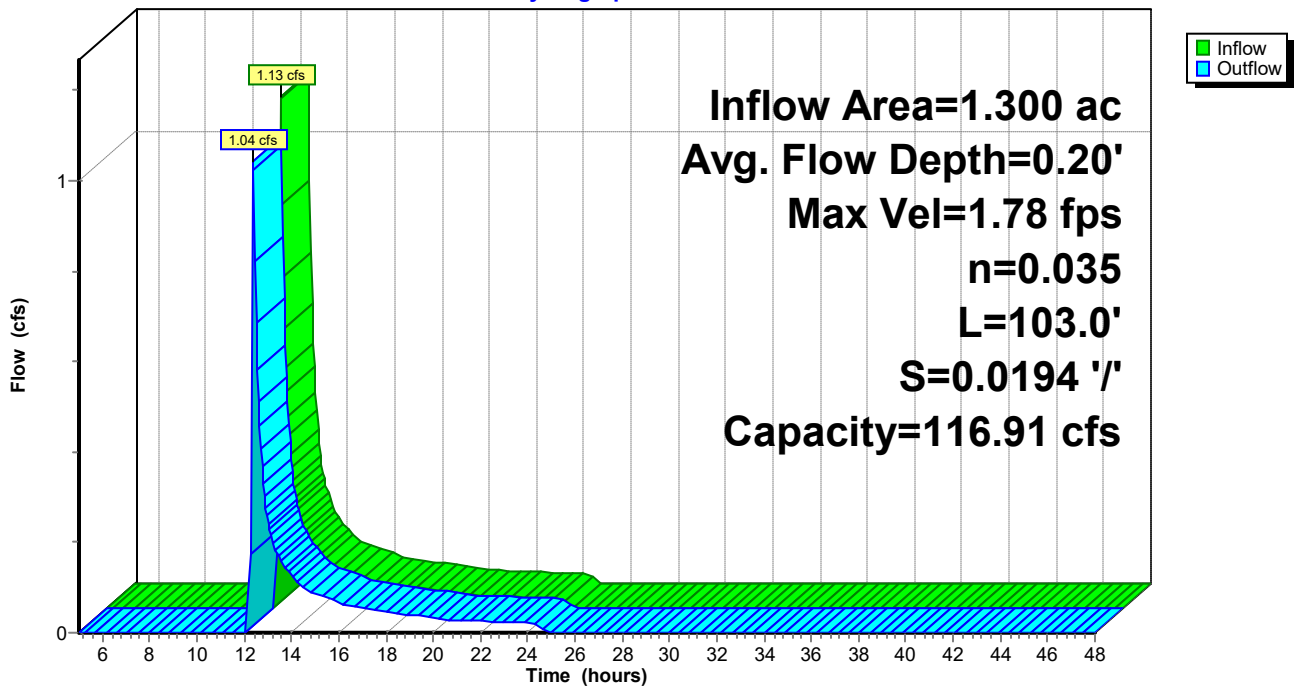
Peak Storage= 73 cf @ 12.36 hrs  
 Average Depth at Peak Storage= 0.20' , Surface Width= 4.18'  
 Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 116.91 cfs

3.00' x 2.00' deep channel, n= 0.035 Riprap, 6-inch  
 Side Slope Z-value= 3.0 ' / ' Top Width= 15.00'  
 Length= 103.0' Slope= 0.0194 ' / '  
 Inlet Invert= 8.50', Outlet Invert= 6.50'



**Reach 6R: Overflow**

Hydrograph



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**Summary for Reach 7R: Overflow**

Inflow Area = 2.900 ac, 65.52% Impervious, Inflow Depth > 2.68" for 10-Year event  
 Inflow = 0.39 cfs @ 14.15 hrs, Volume= 0.648 af  
 Outflow = 0.39 cfs @ 14.22 hrs, Volume= 0.648 af, Atten= 0%, Lag= 4.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.61 fps, Min. Travel Time= 2.7 min  
 Avg. Velocity = 0.43 fps, Avg. Travel Time= 3.9 min

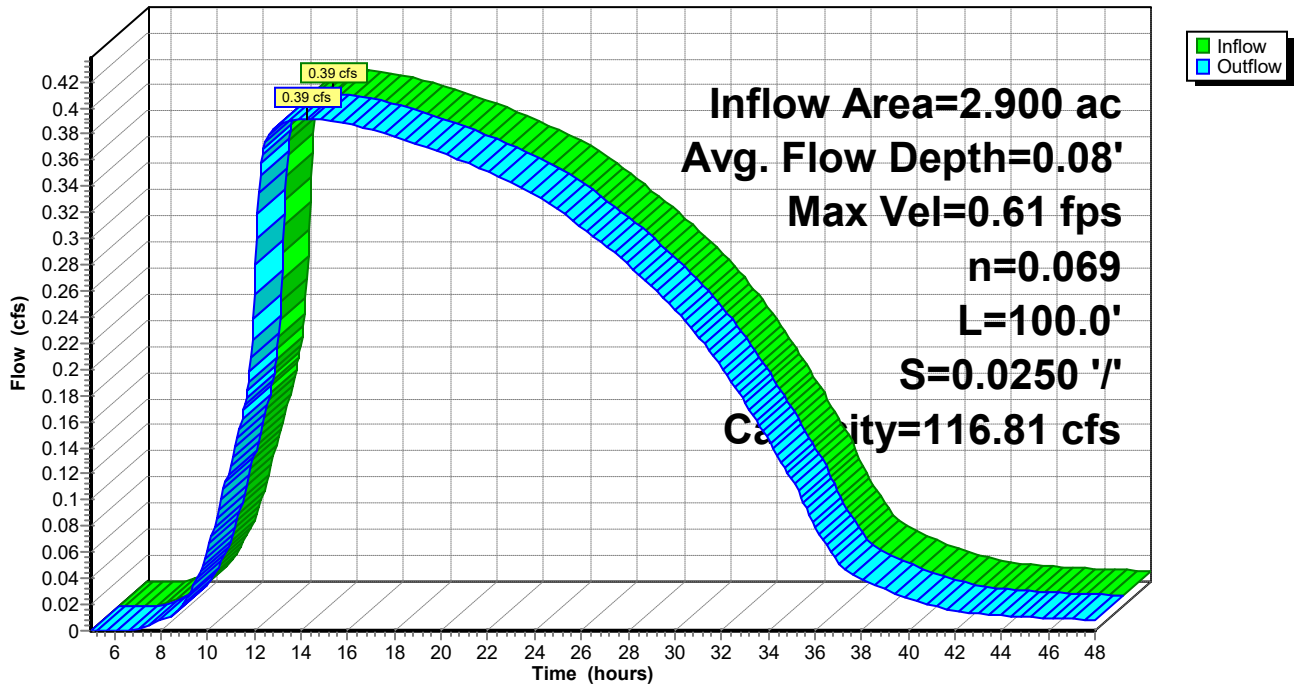
Peak Storage= 64 cf @ 14.18 hrs  
 Average Depth at Peak Storage= 0.08' , Surface Width= 8.47'  
 Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 116.81 cfs

8.00' x 2.00' deep channel, n= 0.069 Riprap, 6-inch  
 Side Slope Z-value= 3.0 '/' Top Width= 20.00'  
 Length= 100.0' Slope= 0.0250 '/'  
 Inlet Invert= 14.50', Outlet Invert= 12.00'



**Reach 7R: Overflow**

Hydrograph



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## Summary for Reach 8R: Dry Swale

Inflow Area = 1.000 ac, 95.00% Impervious, Inflow Depth > 3.05" for 10-Year event  
Inflow = 4.79 cfs @ 11.96 hrs, Volume= 0.254 af  
Outflow = 4.69 cfs @ 11.98 hrs, Volume= 0.254 af, Atten= 2%, Lag= 1.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 2.92 fps, Min. Travel Time= 0.6 min  
Avg. Velocity = 0.77 fps, Avg. Travel Time= 2.3 min

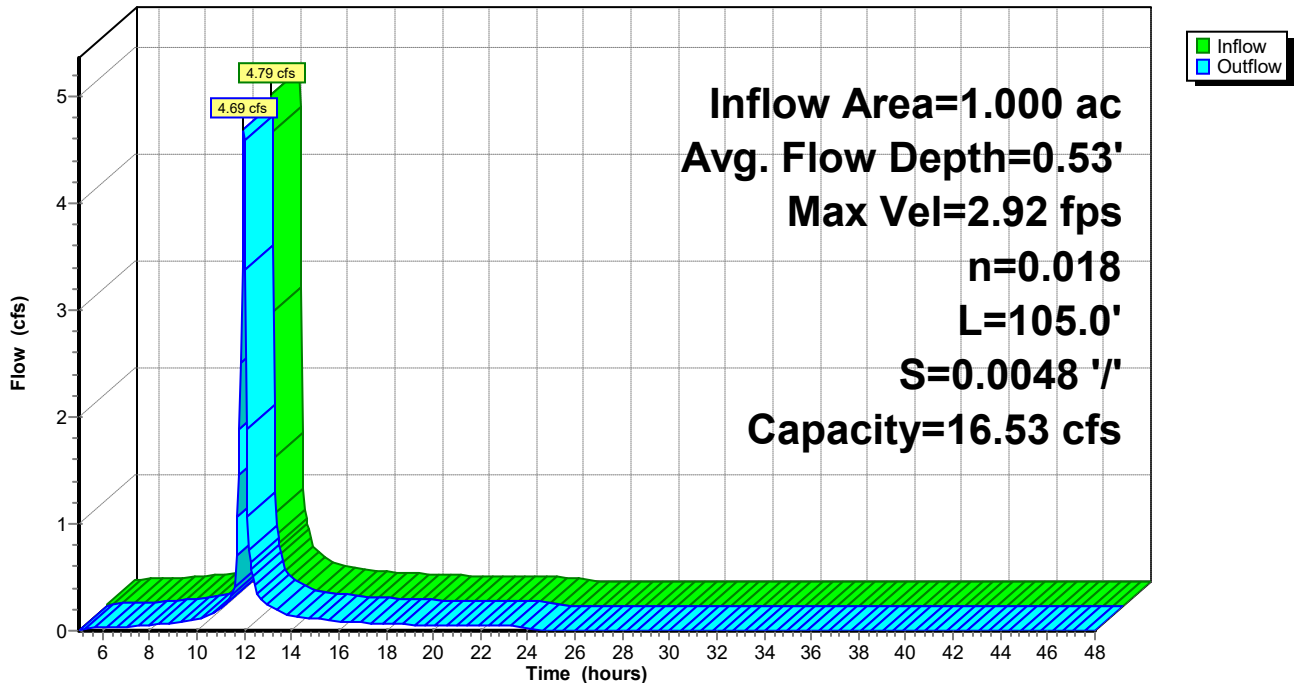
Peak Storage= 169 cf @ 11.97 hrs  
Average Depth at Peak Storage= 0.53' , Surface Width= 4.11'  
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 16.53 cfs

2.00' x 1.00' deep channel, n= 0.018 Earth, clean & straight  
Side Slope Z-value= 2.0 ' / ' Top Width= 6.00'  
Length= 105.0' Slope= 0.0048 ' / '  
Inlet Invert= 10.00', Outlet Invert= 9.50'



Reach 8R: Dry Swale

Hydrograph



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**Summary for Reach 10R: Dry Swale**

Inflow Area = 0.760 ac, 78.95% Impervious, Inflow Depth = 2.21" for 10-Year event  
 Inflow = 2.69 cfs @ 12.01 hrs, Volume= 0.140 af  
 Outflow = 2.62 cfs @ 12.02 hrs, Volume= 0.140 af, Atten= 3%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 4.08 fps, Min. Travel Time= 0.5 min  
 Avg. Velocity = 1.13 fps, Avg. Travel Time= 1.7 min

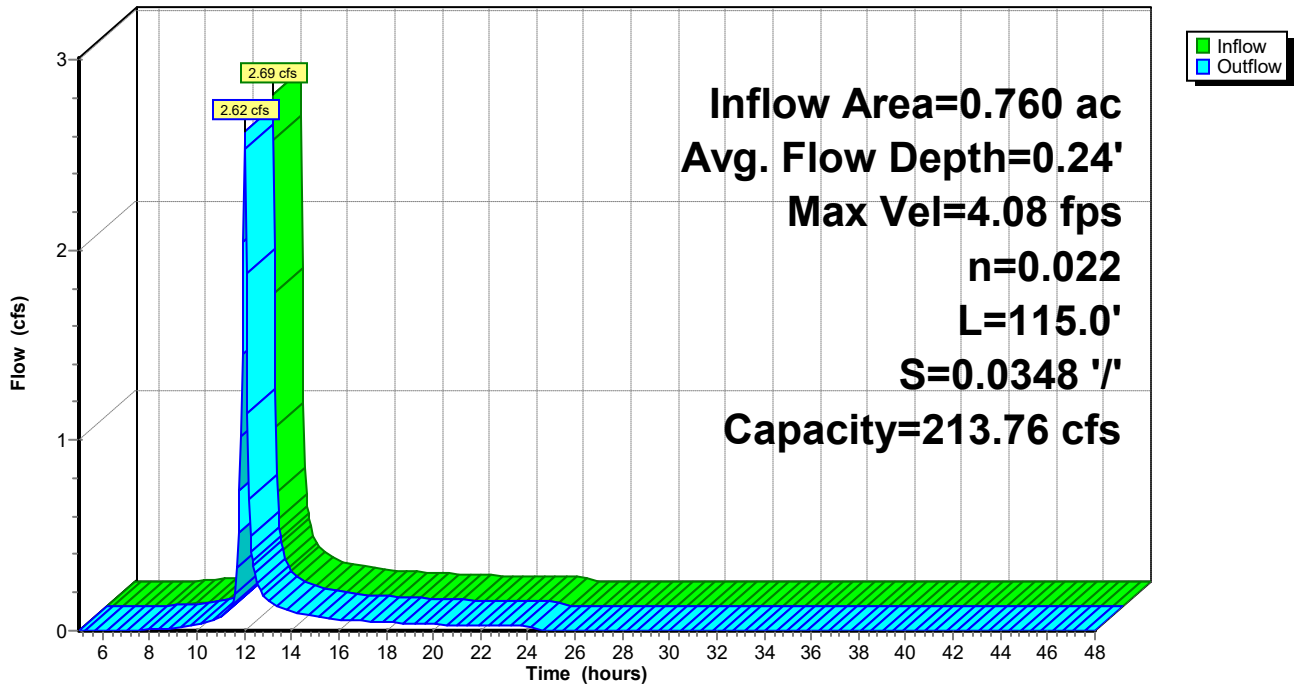
Peak Storage= 75 cf @ 12.01 hrs  
 Average Depth at Peak Storage= 0.24' , Surface Width= 3.44'  
 Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 213.76 cfs

2.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 ' / ' Top Width= 14.00'  
 Length= 115.0' Slope= 0.0348 ' / '  
 Inlet Invert= 37.00', Outlet Invert= 33.00'



**Reach 10R: Dry Swale**

Hydrograph



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**Summary for Reach 12R: Sediment Basin Overflow**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 0.55" for 10-Year event  
 Inflow = 1.05 cfs @ 12.11 hrs, Volume= 0.055 af  
 Outflow = 0.95 cfs @ 12.12 hrs, Volume= 0.055 af, Atten= 10%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.69 fps, Min. Travel Time= 0.1 min  
 Avg. Velocity = 0.19 fps, Avg. Travel Time= 0.5 min

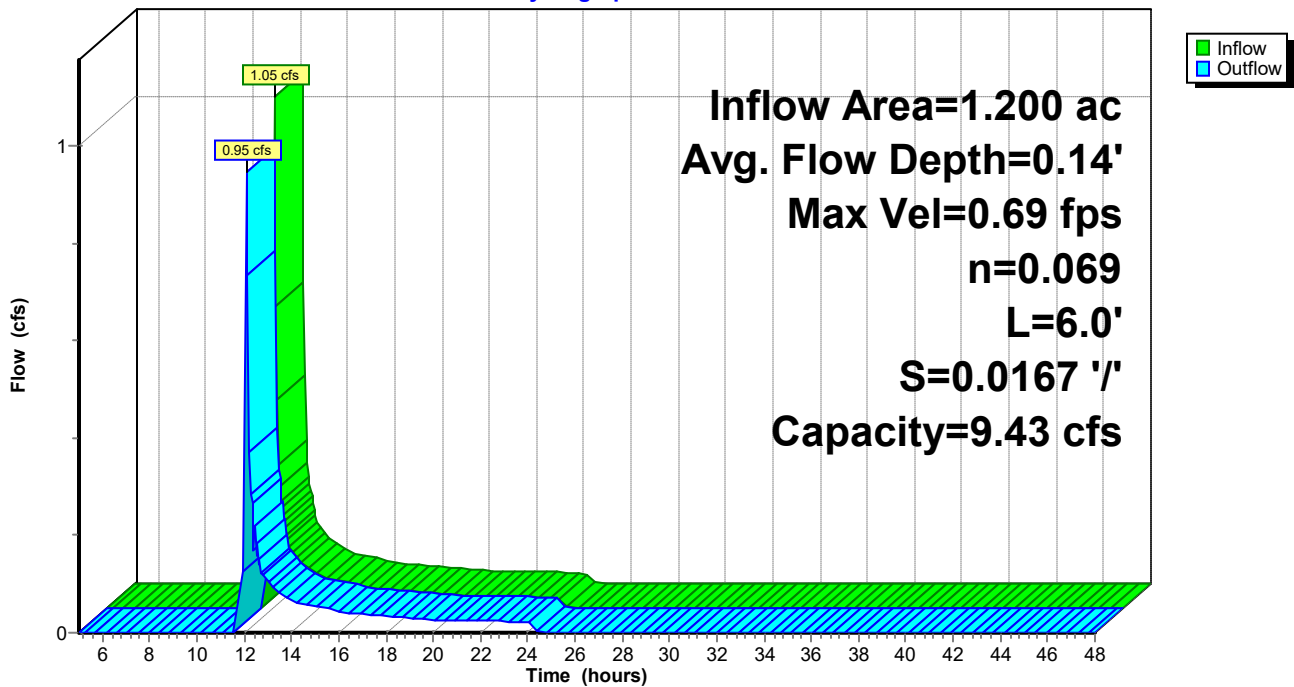
Peak Storage= 9 cf @ 12.12 hrs  
 Average Depth at Peak Storage= 0.14' , Surface Width= 11.11'  
 Bank-Full Depth= 0.50' Flow Area= 6.0 sf, Capacity= 9.43 cfs

10.00' x 0.50' deep channel, n= 0.069 Riprap, 6-inch  
 Side Slope Z-value= 4.0 ' / ' Top Width= 14.00'  
 Length= 6.0' Slope= 0.0167 ' / '  
 Inlet Invert= 12.00', Outlet Invert= 11.90'



**Reach 12R: Sediment Basin Overflow**

Hydrograph



**18641.00-Proposed Condition**

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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Reach 13R: Roadside Swale**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 0.63" for 10-Year event  
 Inflow = 1.16 cfs @ 11.99 hrs, Volume= 0.063 af  
 Outflow = 1.03 cfs @ 12.06 hrs, Volume= 0.063 af, Atten= 11%, Lag= 3.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 2.18 fps, Min. Travel Time= 2.2 min  
 Avg. Velocity = 0.77 fps, Avg. Travel Time= 6.3 min

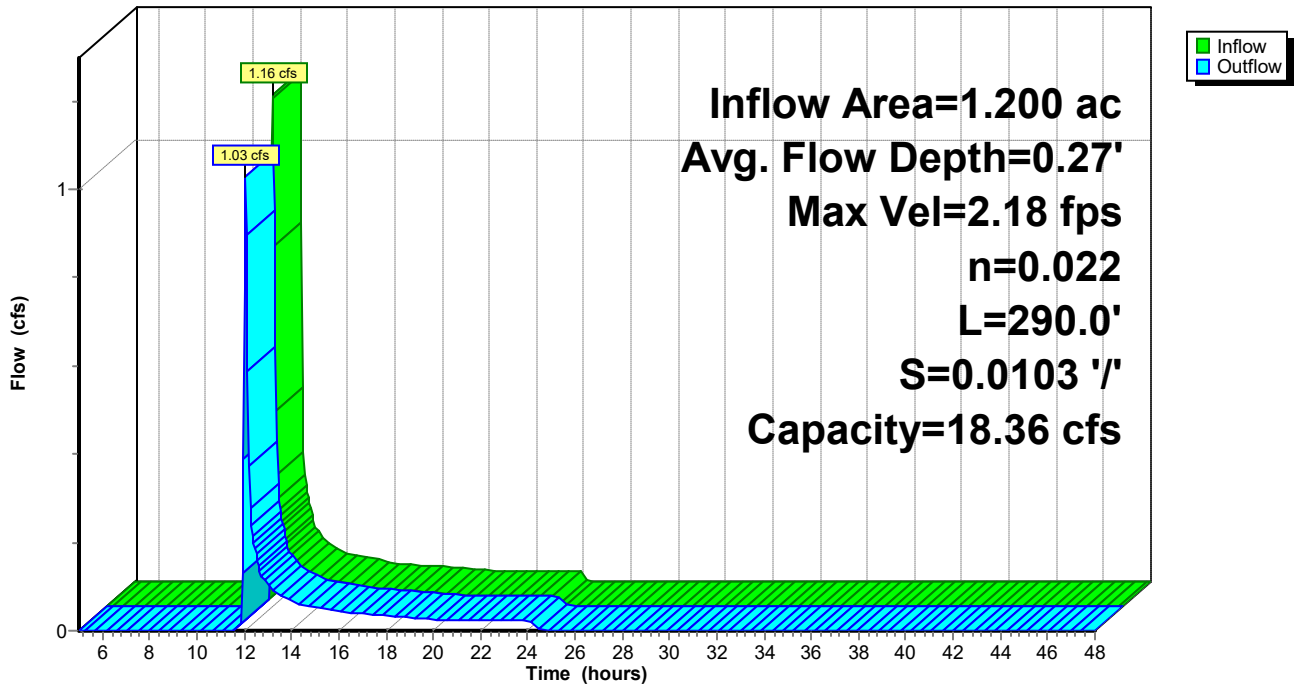
Peak Storage= 141 cf @ 12.02 hrs  
 Average Depth at Peak Storage= 0.27' , Surface Width= 2.62'  
 Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 18.36 cfs

1.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 ' / ' Top Width= 7.00'  
 Length= 290.0' Slope= 0.0103 ' / '  
 Inlet Invert= 15.00', Outlet Invert= 12.00'



**Reach 13R: Roadside Swale**

Hydrograph





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**Summary for Reach 14R: Roadside Swale**

Inflow Area = 0.760 ac, 78.95% Impervious, Inflow Depth = 2.21" for 10-Year event  
 Inflow = 2.85 cfs @ 11.97 hrs, Volume= 0.140 af  
 Outflow = 2.69 cfs @ 12.01 hrs, Volume= 0.140 af, Atten= 6%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 5.12 fps, Min. Travel Time= 1.5 min  
 Avg. Velocity = 1.44 fps, Avg. Travel Time= 5.3 min

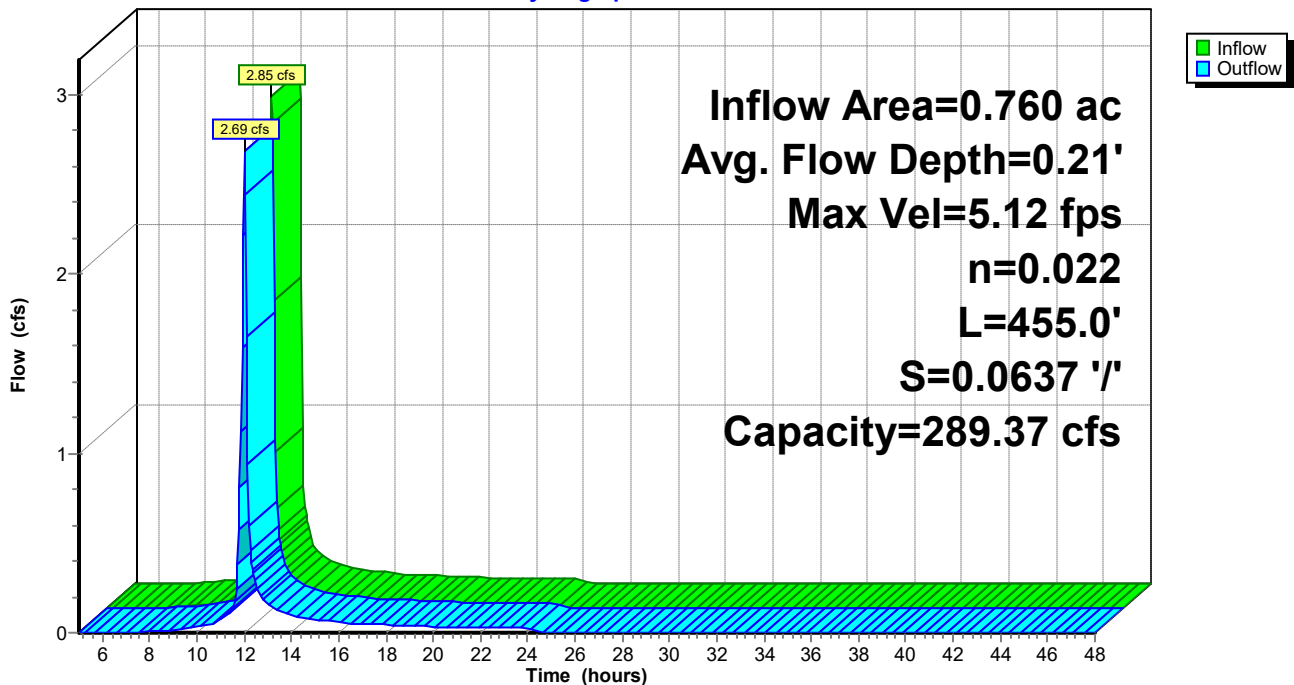
Peak Storage= 250 cf @ 11.99 hrs  
 Average Depth at Peak Storage= 0.21' , Surface Width= 3.25'  
 Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 289.37 cfs

2.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 ' / ' Top Width= 14.00'  
 Length= 455.0' Slope= 0.0637 ' / '  
 Inlet Invert= 66.00', Outlet Invert= 37.00'



**Reach 14R: Roadside Swale**

Hydrograph



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**Summary for Reach 15R: Roadside Swale**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 1.27" for 10-Year event  
 Inflow = 2.86 cfs @ 11.98 hrs, Volume= 0.137 af  
 Outflow = 2.02 cfs @ 12.17 hrs, Volume= 0.137 af, Atten= 29%, Lag= 11.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.95 fps, Min. Travel Time= 7.5 min  
 Avg. Velocity = 0.27 fps, Avg. Travel Time= 26.8 min

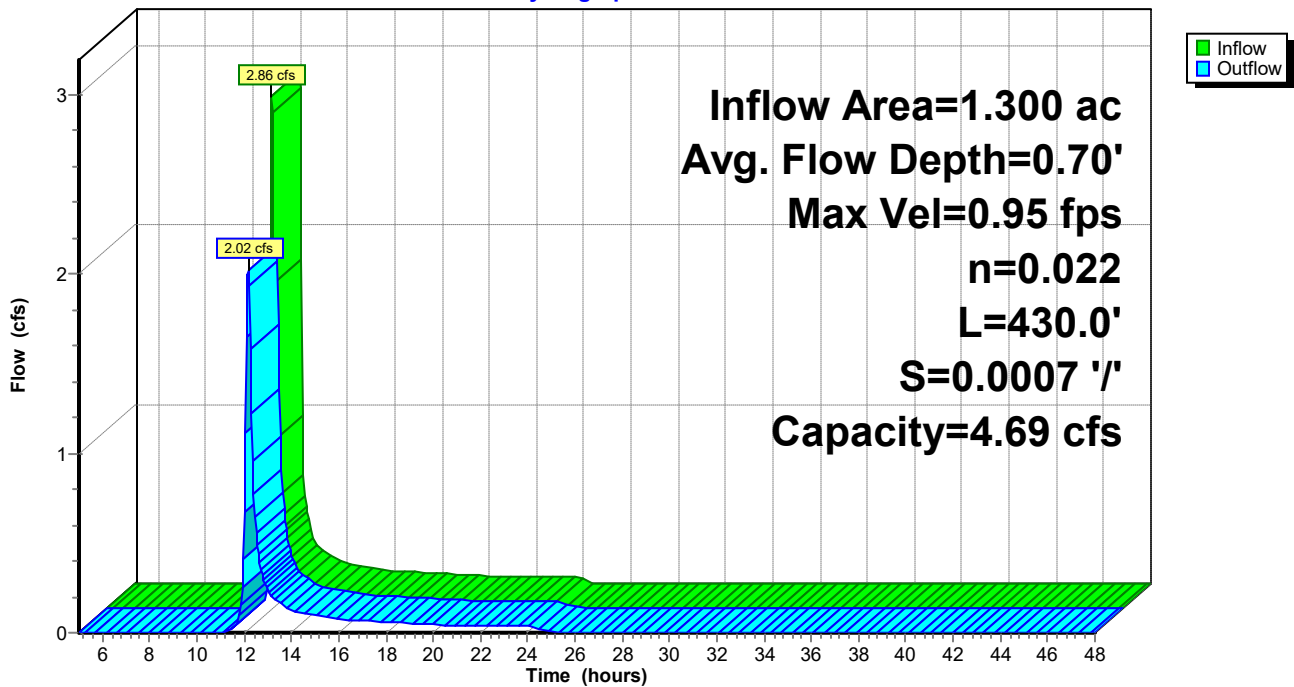
Peak Storage= 939 cf @ 12.04 hrs  
 Average Depth at Peak Storage= 0.70' , Surface Width= 5.22'  
 Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 4.69 cfs

1.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 '/' Top Width= 7.00'  
 Length= 430.0' Slope= 0.0007 '/'  
 Inlet Invert= 10.00', Outlet Invert= 9.71'



**Reach 15R: Roadside Swale**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Reach 17R: Sediment Basin Overflow**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 1.16" for 10-Year event  
 Inflow = 2.04 cfs @ 12.18 hrs, Volume= 0.126 af  
 Outflow = 2.04 cfs @ 12.17 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.80 fps, Min. Travel Time= 0.1 min  
 Avg. Velocity = 0.18 fps, Avg. Travel Time= 0.6 min

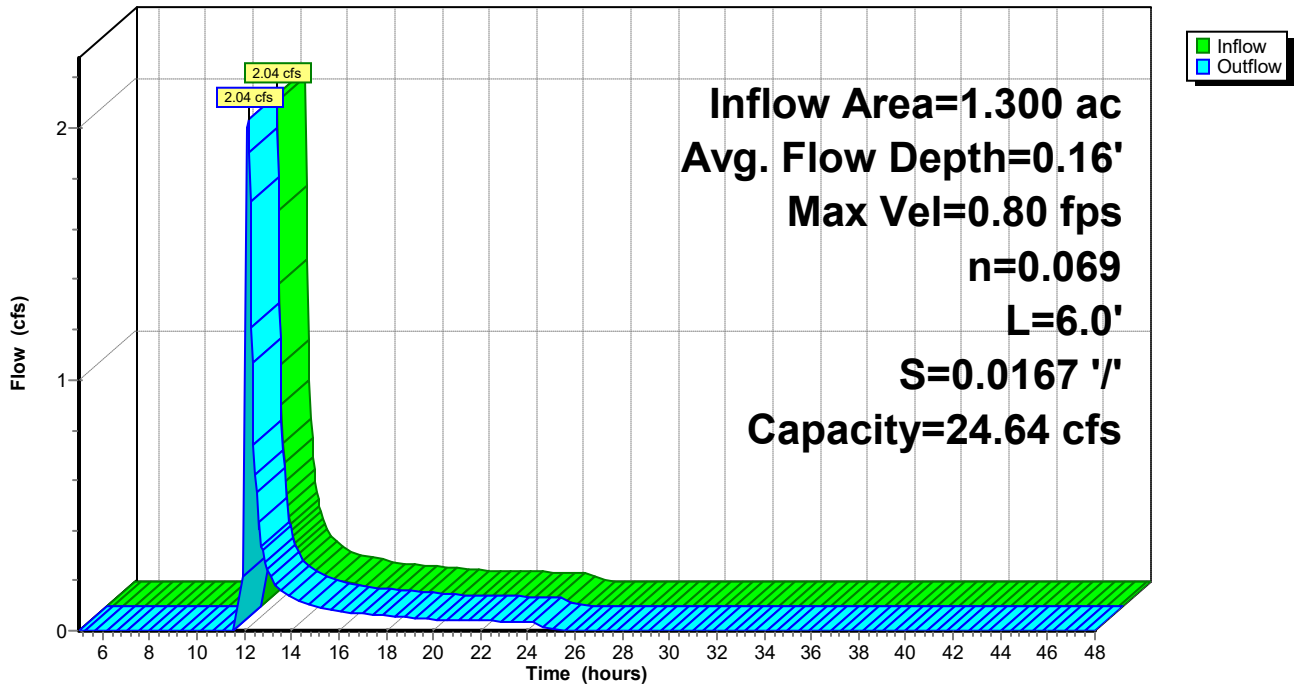
Peak Storage= 15 cf @ 12.16 hrs  
 Average Depth at Peak Storage= 0.16' , Surface Width= 16.30'  
 Bank-Full Depth= 0.70' Flow Area= 12.5 sf, Capacity= 24.64 cfs

15.00' x 0.70' deep channel, n= 0.069 Riprap, 6-inch  
 Side Slope Z-value= 4.0 ' / ' Top Width= 20.60'  
 Length= 6.0' Slope= 0.0167 ' / '  
 Inlet Invert= 9.00', Outlet Invert= 8.90'



**Reach 17R: Sediment Basin Overflow**

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Pond 1P: WQv Pond #1**

Inflow Area = 2.900 ac, 65.52% Impervious, Inflow Depth = 2.73" for 10-Year event  
 Inflow = 8.78 cfs @ 12.07 hrs, Volume= 0.660 af  
 Outflow = 0.39 cfs @ 14.15 hrs, Volume= 0.648 af, Atten= 96%, Lag= 124.8 min  
 Primary = 0.39 cfs @ 14.15 hrs, Volume= 0.648 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Starting Elev= 14.00' Surf.Area= 9,229 sf Storage= 19,003 cf  
 Peak Elev= 15.60' @ 14.15 hrs Surf.Area= 19,469 sf Storage= 36,849 cf (17,846 cf above start)

Plug-Flow detention time= 1,190.4 min calculated for 0.212 af (32% of inflow)  
 Center-of-Mass det. time= 532.7 min ( 1,333.1 - 800.3 )

Volume	Invert	Avail.Storage	Storage Description
#1	10.00'	4,795 cf	<b>Forebay (Prismatic)</b> Listed below (Recalc)
#2	9.00'	57,882 cf	<b>Permanent Pool (Prismatic)</b> Listed below (Recalc)
		62,677 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	232	0	0
11.00	569	401	401
12.00	1,018	794	1,194
13.00	1,467	1,243	2,437
14.00	3,249	2,358	4,795

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
9.00	1,145	0	0
10.00	1,751	1,448	1,448
11.00	2,339	2,045	3,493
12.00	2,959	2,649	6,142
13.00	3,597	3,278	9,420
14.00	5,980	4,789	14,209
14.50	7,240	3,305	17,514
15.00	14,392	5,408	22,922
16.00	17,455	15,924	38,845
17.00	20,619	19,037	57,882

Device	Routing	Invert	Outlet Devices
#1	Primary	14.00'	<b>12.0" Round Culvert</b> L= 50.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 14.00' / 14.00' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	16.00'	<b>24.0" x 24.0" Horiz. Outlet Structure Top Grate</b> C= 0.600 in 24.0" x 24.0" Grate (100% open area) Limited to weir flow at low heads
#3	Device 1	14.00'	<b>4.0" Round Reverse Slope Pipe</b> L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 9.00' / 14.00' S= -0.1250 ' Cc= 0.900

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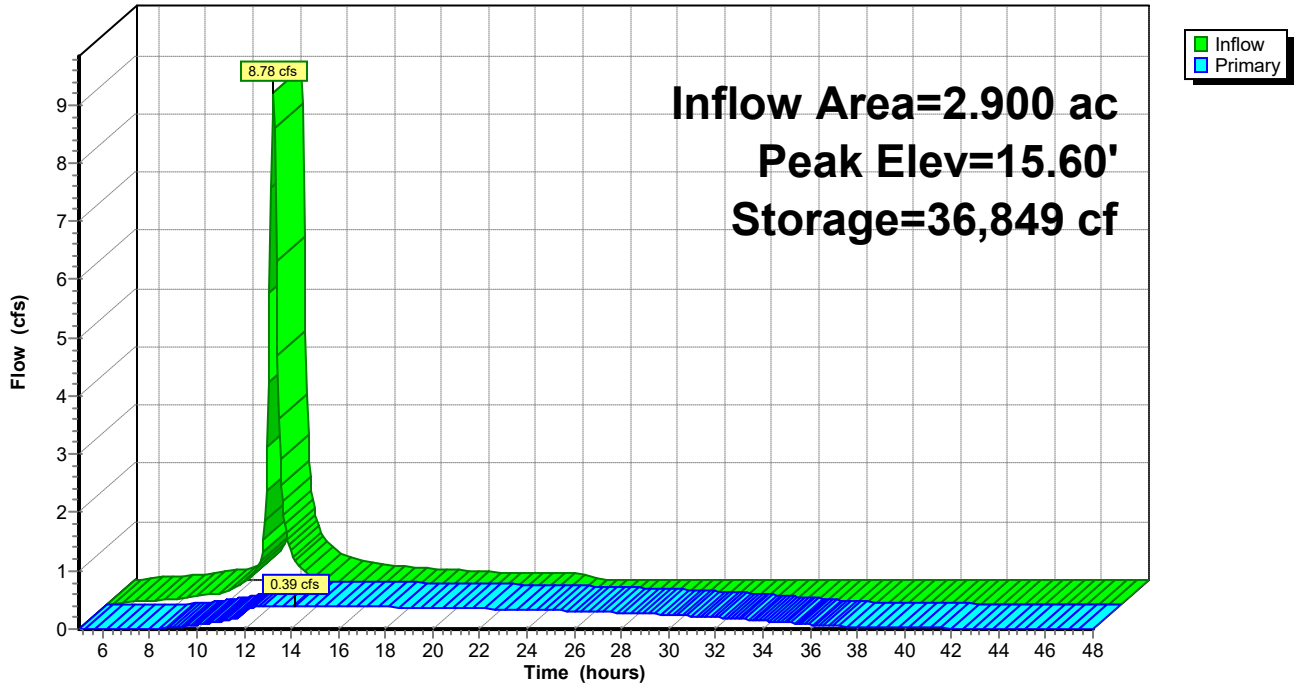
#4	Primary	16.25'	n= 0.010 PVC, smooth interior, Flow Area= 0.09 sf
			<b>6.0' long x 1.0' breadth Broad-Crested Rectangular Weir</b>
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

**Primary OutFlow** Max=0.39 cfs @ 14.15 hrs HW=15.60' (Free Discharge)

- 1=Culvert (Passes 0.39 cfs of 2.78 cfs potential flow)
- 2=Outlet Structure Top Grate (Controls 0.00 cfs)
- 3=Reverse Slope Pipe (Outlet Controls 0.39 cfs @ 4.48 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

**Pond 1P: WQv Pond #1**

Hydrograph



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**Summary for Pond 2P: WQv Pond #2**

Inflow Area = 5.800 ac, 31.90% Impervious, Inflow Depth > 2.47" for 10-Year event  
 Inflow = 21.14 cfs @ 11.97 hrs, Volume= 1.195 af  
 Outflow = 0.64 cfs @ 14.61 hrs, Volume= 1.181 af, Atten= 97%, Lag= 158.4 min  
 Primary = 0.64 cfs @ 14.61 hrs, Volume= 1.181 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Starting Elev= 14.00' Surf.Area= 5,917 sf Storage= 9,000 cf  
 Peak Elev= 16.48' @ 14.61 hrs Surf.Area= 24,654 sf Storage= 41,602 cf (32,602 cf above start)

Plug-Flow detention time= 806.9 min calculated for 0.974 af (82% of inflow)  
 Center-of-Mass det. time= 595.6 min ( 1,397.6 - 802.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	10.00'	4,020 cf	<b>Forebay #1 (Prismatic)</b> Listed below (Recalc)
#2	10.00'	2,575 cf	<b>Forebay #2 (Prismatic)</b> Listed below (Recalc)
#3	10.00'	58,093 cf	<b>Permanent Pool (Prismatic)</b> Listed below (Recalc)
		64,688 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	141	0	0
11.00	330	236	236
12.00	562	446	682
13.00	866	714	1,396
14.00	2,023	1,445	2,840
14.50	2,696	1,180	4,020

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	82	0	0
11.00	202	142	142
12.00	351	277	419
13.00	535	443	862
14.00	1,323	929	1,791
14.50	1,815	785	2,575

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	375	0	0
11.00	653	514	514
12.00	957	805	1,319
13.00	1,286	1,122	2,441
14.00	2,571	1,929	4,369
14.50	3,307	1,470	5,839
15.00	13,814	4,280	10,119
16.00	17,852	15,833	25,952
17.00	22,659	20,256	46,207
17.50	24,884	11,886	58,093

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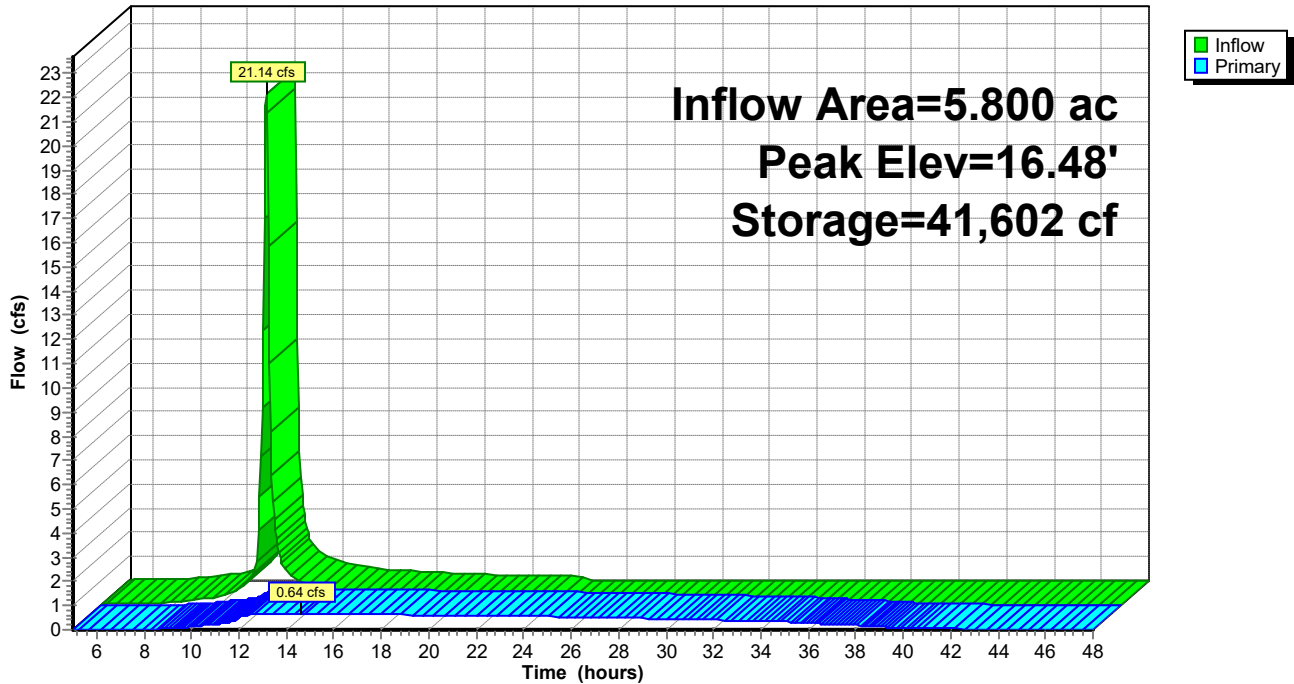
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Device	Routing	Invert	Outlet Devices
#1	Device 3	16.50'	<b>24.0" x 24.0" Horiz. Orifice/Grate</b> C= 0.600 in 24.0" x 24.0" Grate (100% open area) Limited to weir flow at low heads
#2	Device 3	14.00'	<b>4.0" Vert. Reverse Slope Pipe</b> C= 0.600 Limited to weir flow at low heads
#3	Primary	14.00'	<b>12.0" Round Outlet Structure Discard Pipe</b> L= 40.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 14.00' / 14.00' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	16.60'	<b>5.0' long x 0.5' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

**Primary OutFlow** Max=0.64 cfs @ 14.61 hrs HW=16.48' (Free Discharge)  
 3=Outlet Structure Discard Pipe (Passes 0.64 cfs of 4.61 cfs potential flow)  
 1=Orifice/Grate ( Controls 0.00 cfs)  
 2=Reverse Slope Pipe (Orifice Controls 0.64 cfs @ 7.32 fps)  
 4=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)

**Pond 2P: WQv Pond #2**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Pond 3P: Infiltration Basin #1**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 0.55" for 10-Year event  
 Inflow = 0.95 cfs @ 12.12 hrs, Volume= 0.055 af  
 Outflow = 0.02 cfs @ 24.19 hrs, Volume= 0.039 af, Atten= 98%, Lag= 724.3 min  
 Discarded = 0.02 cfs @ 24.19 hrs, Volume= 0.039 af  
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 11.41' @ 24.19 hrs Surf.Area= 1,125 sf Storage= 1,750 cf

Plug-Flow detention time= 913.8 min calculated for 0.039 af (72% of inflow)  
 Center-of-Mass det. time= 797.0 min ( 1,732.3 - 935.2 )

Volume	Invert	Avail.Storage	Storage Description		
#1	8.10'	2,492 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
8.10	109	56.0	0	0	109
12.00	1,415	149.0	2,492	2,492	1,678

Device	Routing	Invert	Outlet Devices
#1	Primary	11.75'	<b>Channel/Reach</b> using Reach 5R: Overflow
#2	Discarded	8.10'	<b>0.500 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 4.00'

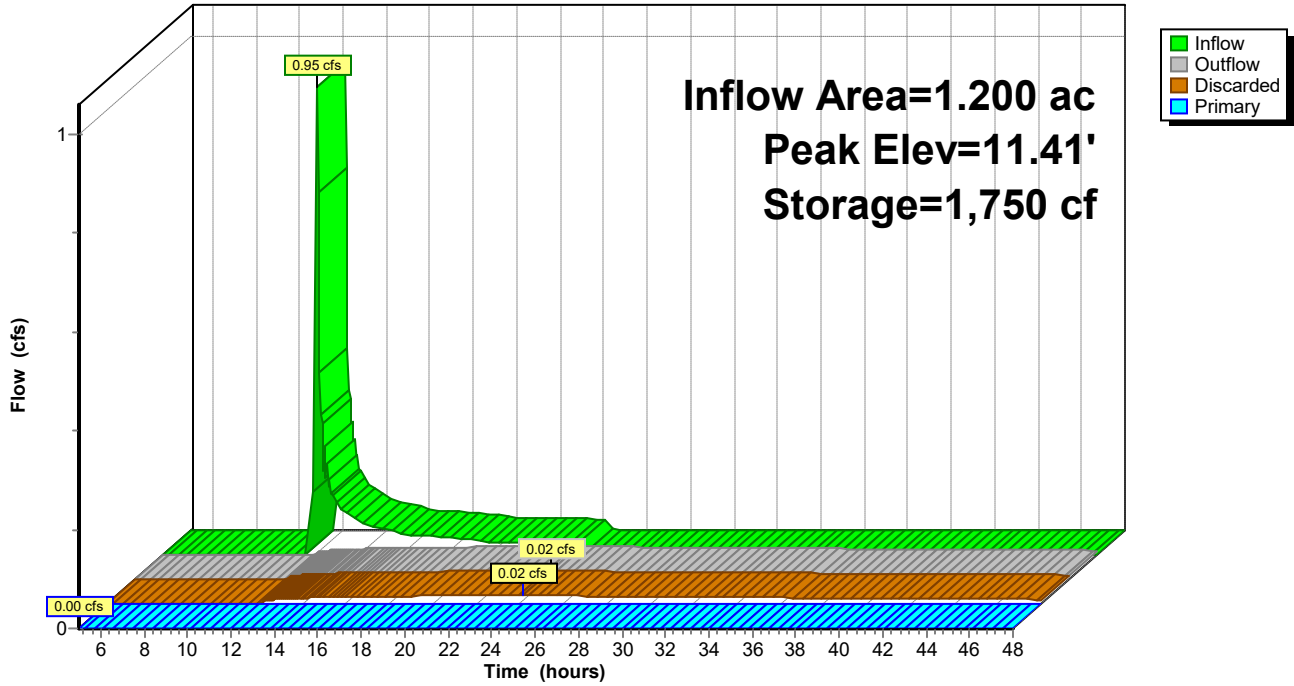
**Discarded OutFlow** Max=0.02 cfs @ 24.19 hrs HW=11.41' (Free Discharge)  
 ↑**2=Exfiltration** ( Controls 0.02 cfs)

**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=8.10' (Free Discharge)  
 ↑**1=Channel/Reach** ( Controls 0.00 cfs)



Pond 3P: Infiltration Basin #1

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Pond 4P: Infiltration Basin #2**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 1.16" for 10-Year event  
 Inflow = 2.04 cfs @ 12.17 hrs, Volume= 0.126 af  
 Outflow = 1.15 cfs @ 12.35 hrs, Volume= 0.118 af, Atten= 44%, Lag= 10.7 min  
 Discarded = 0.02 cfs @ 12.34 hrs, Volume= 0.033 af  
 Primary = 1.13 cfs @ 12.35 hrs, Volume= 0.085 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 8.68' @ 12.34 hrs Surf.Area= 933 sf Storage= 1,310 cf

Plug-Flow detention time= 262.2 min calculated for 0.118 af (94% of inflow)  
 Center-of-Mass det. time= 227.0 min ( 1,118.2 - 891.2 )

Volume	Invert	Avail.Storage	Storage Description			
#1	5.80'	2,495 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
5.80	110	56.0	0	0	110	
9.70	1,415	150.0	2,495	2,495	1,702	

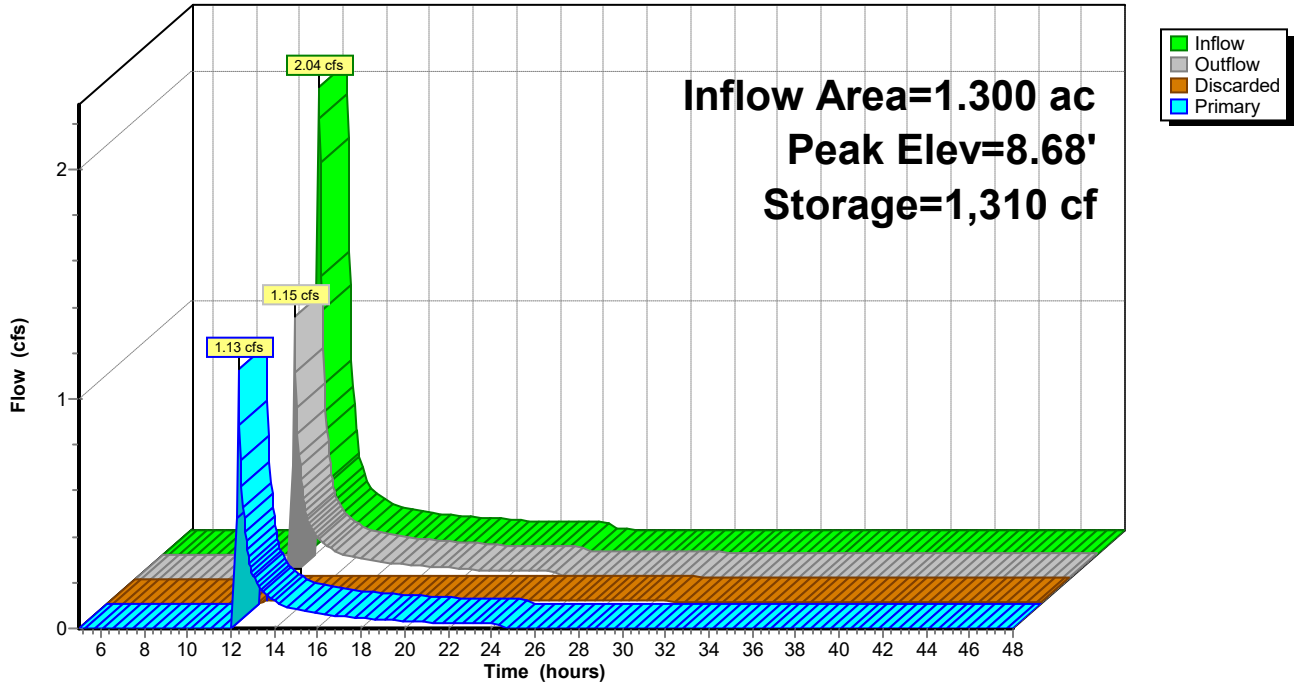
Device	Routing	Invert	Outlet Devices
#1	Primary	8.50'	<b>Channel/Reach</b> using Reach 6R: Overflow
#2	Discarded	5.80'	<b>0.500 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 3.00'

**Discarded OutFlow** Max=0.02 cfs @ 12.34 hrs HW=8.68' (Free Discharge)  
 ↑**2=Exfiltration** ( Controls 0.02 cfs)

**Primary OutFlow** Max=1.10 cfs @ 12.35 hrs HW=8.68' (Free Discharge)  
 ↑**1=Channel/Reach** (Channel Controls 1.10 cfs @ 1.71 fps)

Pond 4P: Infiltration Basin #2

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Pond 5P: Sedimentation Basin #1**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 0.63" for 10-Year event  
 Inflow = 1.03 cfs @ 12.06 hrs, Volume= 0.063 af  
 Outflow = 1.05 cfs @ 12.11 hrs, Volume= 0.055 af, Atten= 0%, Lag= 3.2 min  
 Primary = 1.05 cfs @ 12.11 hrs, Volume= 0.055 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 12.15' @ 12.12 hrs Surf.Area= 420 sf Storage= 419 cf

Plug-Flow detention time= 93.2 min calculated for 0.055 af (87% of inflow)  
 Center-of-Mass det. time= 29.9 min ( 934.7 - 904.8 )

Volume	Invert	Avail.Storage	Storage Description			
#1	10.00'	594 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
10.00	55	29.0	0	0	55	
11.00	166	48.0	106	106	178	
12.00	354	69.8	254	360	390	
12.50	593	89.0	234	594	636	

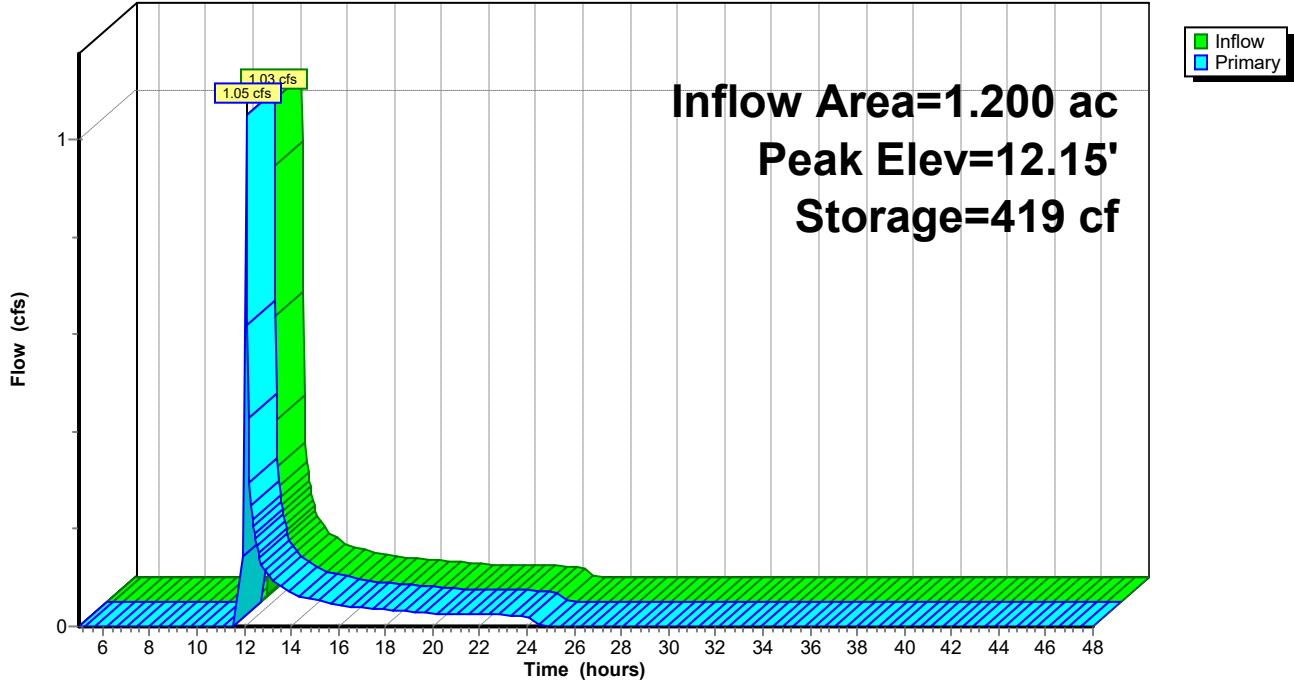
Device	Routing	Invert	Outlet Devices	
#1	Primary	12.00'	<b>Channel/Reach</b> using Reach 12R: Sediment Basin Overflow	

**Primary OutFlow** Max=0.92 cfs @ 12.11 hrs HW=12.13' (Free Discharge)

↑1=Channel/Reach (Channel Controls 0.92 cfs @ 0.68 fps)

Pond 5P: Sedimentation Basin #1

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 10-Year Rainfall=3.63"

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**Summary for Pond 16P: Sedimentation Basin #2**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 1.27" for 10-Year event  
 Inflow = 2.02 cfs @ 12.17 hrs, Volume= 0.137 af  
 Outflow = 2.04 cfs @ 12.18 hrs, Volume= 0.126 af, Atten= 0%, Lag= 1.1 min  
 Primary = 2.04 cfs @ 12.18 hrs, Volume= 0.126 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 9.16' @ 12.18 hrs Surf.Area= 297 sf Storage= 538 cf

Plug-Flow detention time= 58.9 min calculated for 0.126 af (92% of inflow)  
 Center-of-Mass det. time= 15.1 min ( 890.7 - 875.7 )

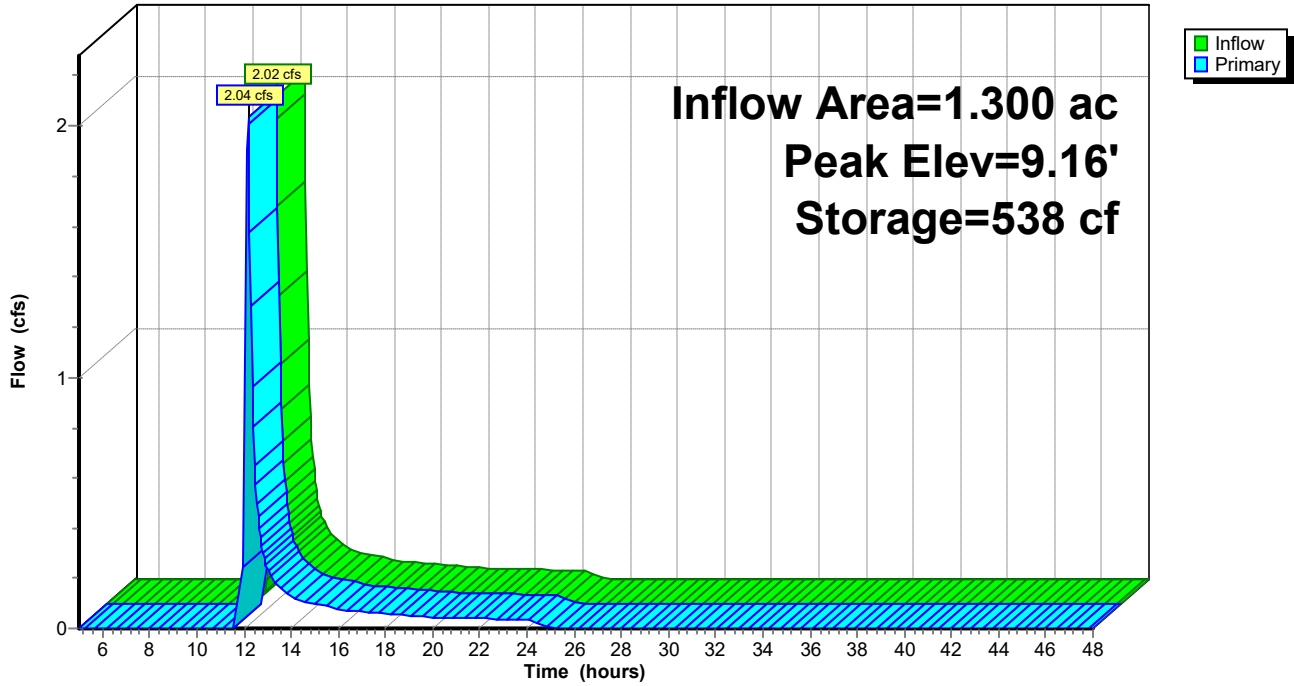
Volume	Invert	Avail.Storage	Storage Description			
#1	5.80'	713 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
5.80	55	29.3	0	0	55	
7.00	120	42.0	102	102	139	
8.00	192	53.0	155	257	235	
9.00	280	64.0	235	492	353	
9.70	355	69.9	222	713	431	

Device	Routing	Invert	Outlet Devices	
#1	Primary	9.00'	<b>Channel/Reach</b> using Reach 17R: Sediment Basin Overflow	

**Primary OutFlow** Max=1.97 cfs @ 12.18 hrs HW=9.16' (Free Discharge)  
 ↳ **1=Channel/Reach** (Channel Controls 1.97 cfs @ 0.79 fps)

Pond 16P: Sedimentation Basin #2

Hydrograph



**18641.00-Proposed Condition**

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Type II 24-hr 10-Year Rainfall=3.63"

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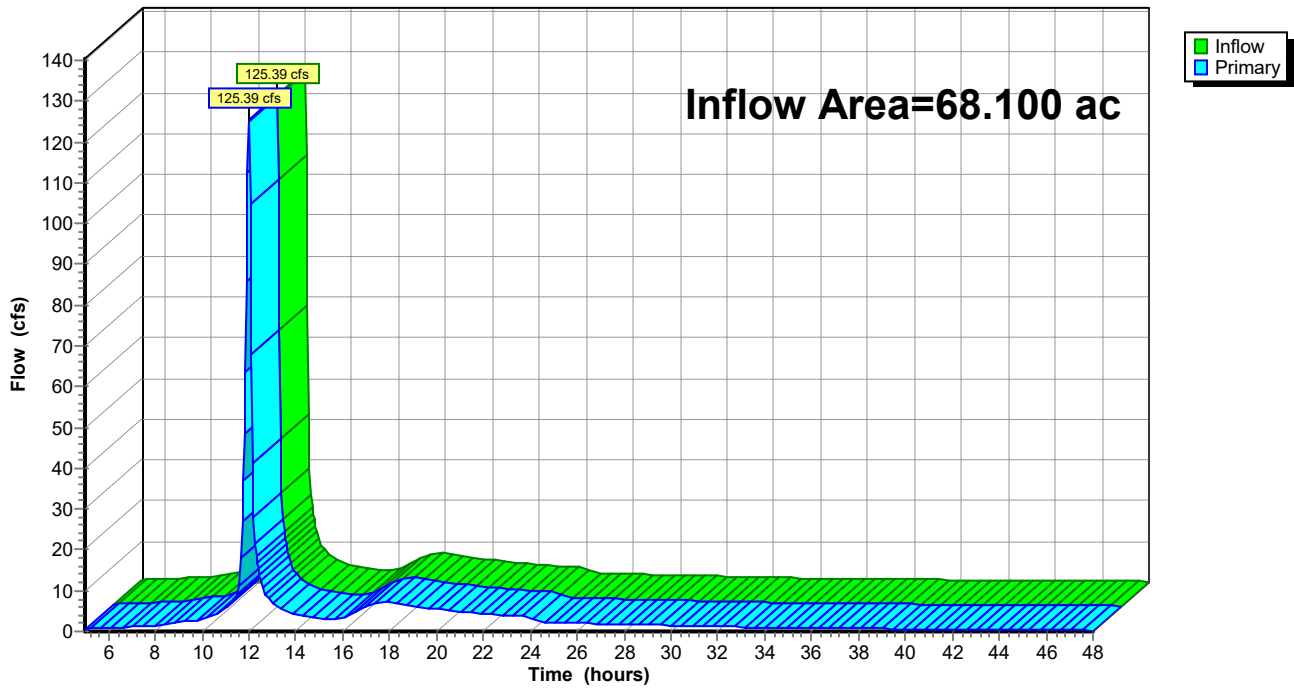
**Summary for Pond AP-1: Analysis Point #1**

Inflow Area = 68.100 ac, 20.36% Impervious, Inflow Depth > 2.06" for 10-Year event  
Inflow = 125.39 cfs @ 11.99 hrs, Volume= 11.718 af  
Primary = 125.39 cfs @ 11.99 hrs, Volume= 11.718 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs

**Pond AP-1: Analysis Point #1**

Hydrograph





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Type II 24-hr 10-Year Rainfall=3.63"

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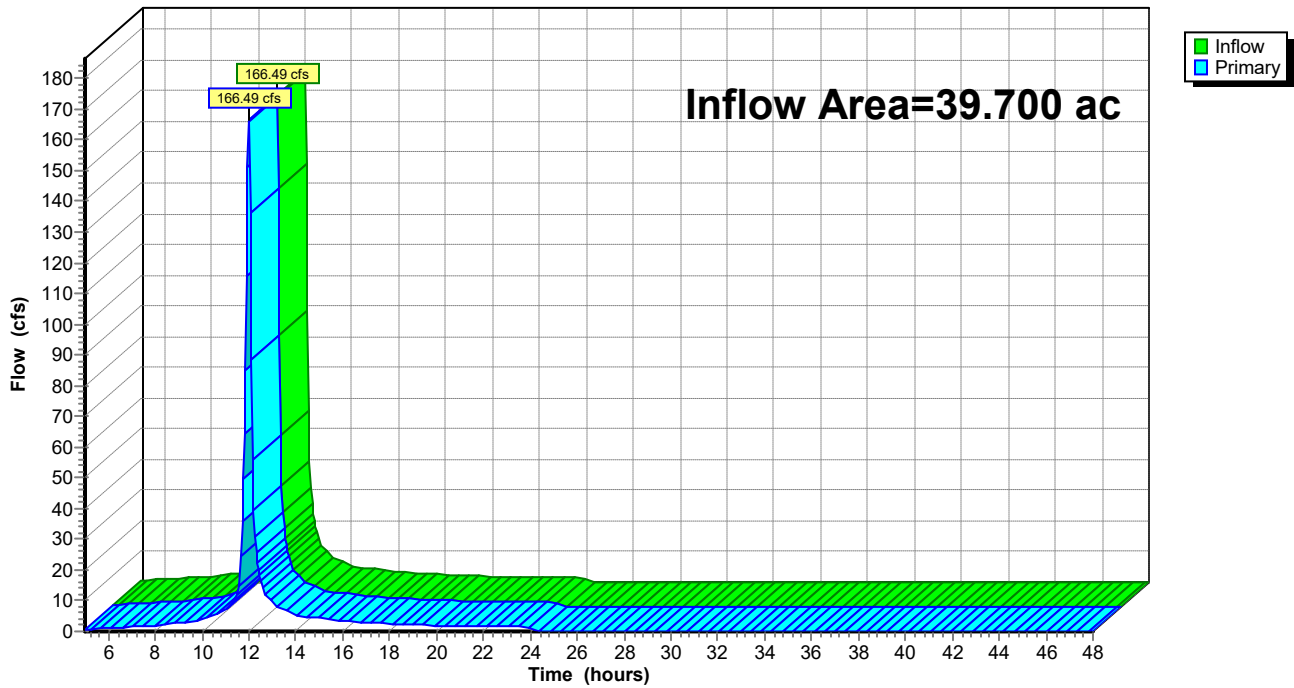
**Summary for Pond AP-2: Analysis Point #2**

Inflow Area = 39.700 ac, 23.10% Impervious, Inflow Depth > 2.92" for 10-Year event  
Inflow = 166.49 cfs @ 11.99 hrs, Volume= 9.662 af  
Primary = 166.49 cfs @ 11.99 hrs, Volume= 9.662 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs

**Pond AP-2: Analysis Point #2**

Hydrograph



**18641.00-Proposed Condition**

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Type II 24-hr 10-Year Rainfall=3.63"

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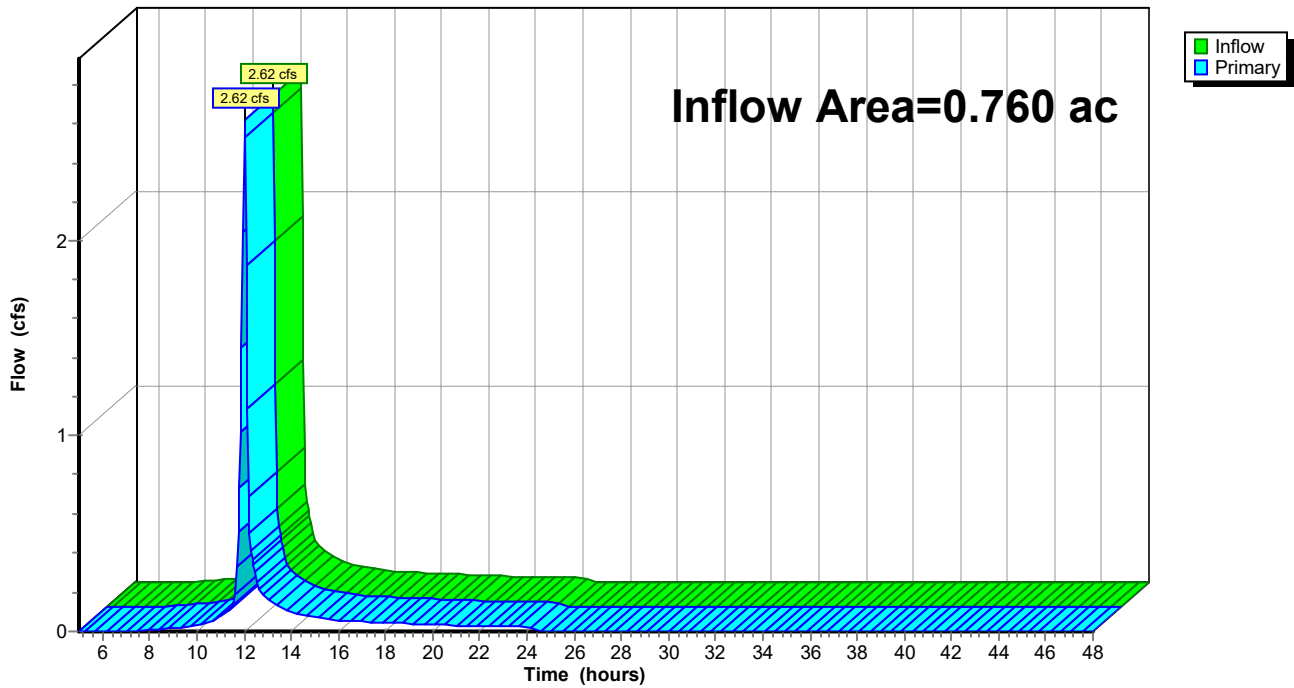
**Summary for Pond AP-3: Analysis Point #3**

Inflow Area = 0.760 ac, 78.95% Impervious, Inflow Depth = 2.21" for 10-Year event  
Inflow = 2.62 cfs @ 12.02 hrs, Volume= 0.140 af  
Primary = 2.62 cfs @ 12.02 hrs, Volume= 0.140 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs

**Pond AP-3: Analysis Point #3**

Hydrograph



**18641.00-Proposed Condition**

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Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-1: Building A & Storage**

Runoff = 84.97 cfs @ 11.98 hrs, Volume= 4.805 af, Depth> 5.60"

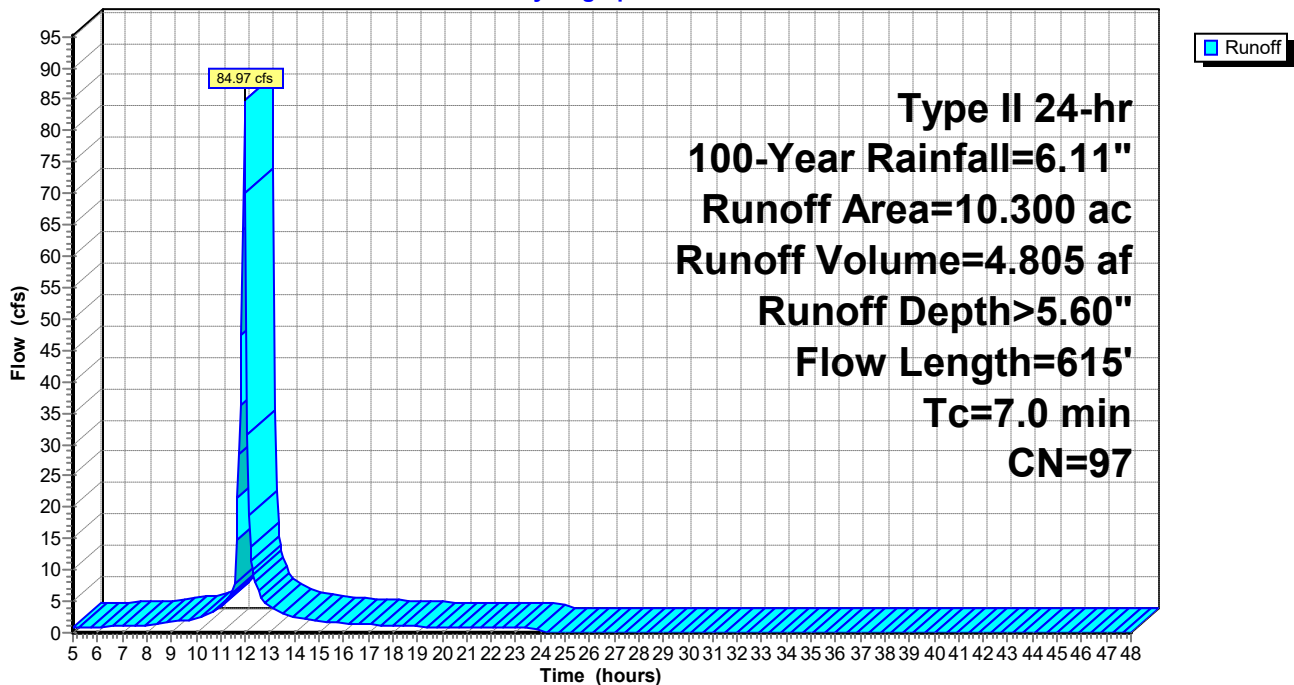
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 6.870	98	Building A
0.100	80	>75% Grass cover, Good, HSG D
* 3.330	95	Dense Graded Aggregate
10.300	97	Weighted Average
3.430		33.30% Pervious Area
6.870		66.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
3.1	300	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.6	215	0.0050	5.91	29.00	<b>Pipe Channel,</b> 30.0" Round Area= 4.9 sf Perim= 7.9' r= 0.63' n= 0.013
7.0	615	Total			

**Subcatchment DR-1: Building A & Storage**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-10: Undisturbed Area**

Runoff = 26.67 cfs @ 13.16 hrs, Volume= 6.234 af, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

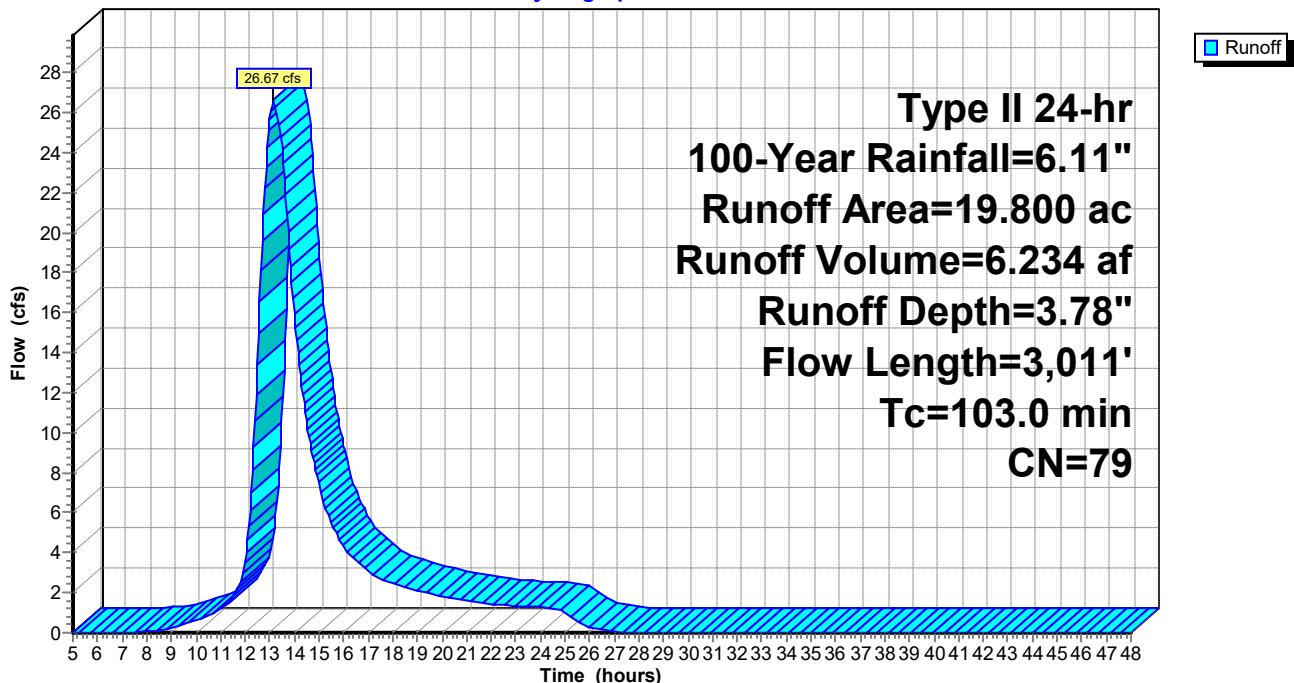
Area (ac)	CN	Description
19.800	79	Woods, Fair, HSG D
19.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	150	0.0800	0.13		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.40"
3.0	200	0.0500	1.12		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
1.6	250	0.2600	2.55		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
78.7	2,361	0.0100	0.50		<b>Shallow Concentrated Flow, Wetland Flow</b> Woodland Kv= 5.0 fps
0.0	50	0.0500	22.86	161.57	<b>Pipe Channel,</b> 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.012 Corrugated PP, smooth interior
103.0	3,011	Total			

**Subcatchment DR-10: Undisturbed Area**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-11: Hudson River Bank**

Runoff = 18.71 cfs @ 12.08 hrs, Volume= 1.259 af, Depth= 3.78"

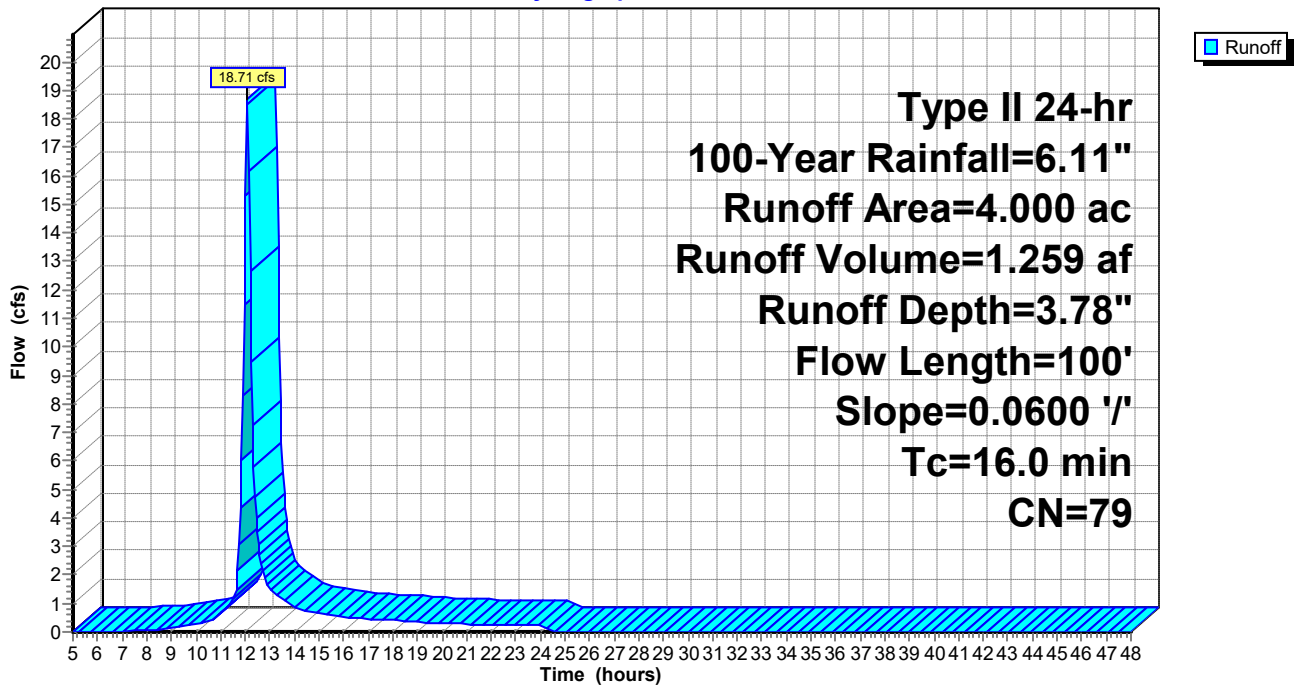
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
4.000	79	Woods, Fair, HSG D
4.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0600	0.10		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.40"

**Subcatchment DR-11: Hudson River Bank**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-12: Normans Kill Bank**

Runoff = 11.17 cfs @ 11.96 hrs, Volume= 0.588 af, Depth> 5.04"

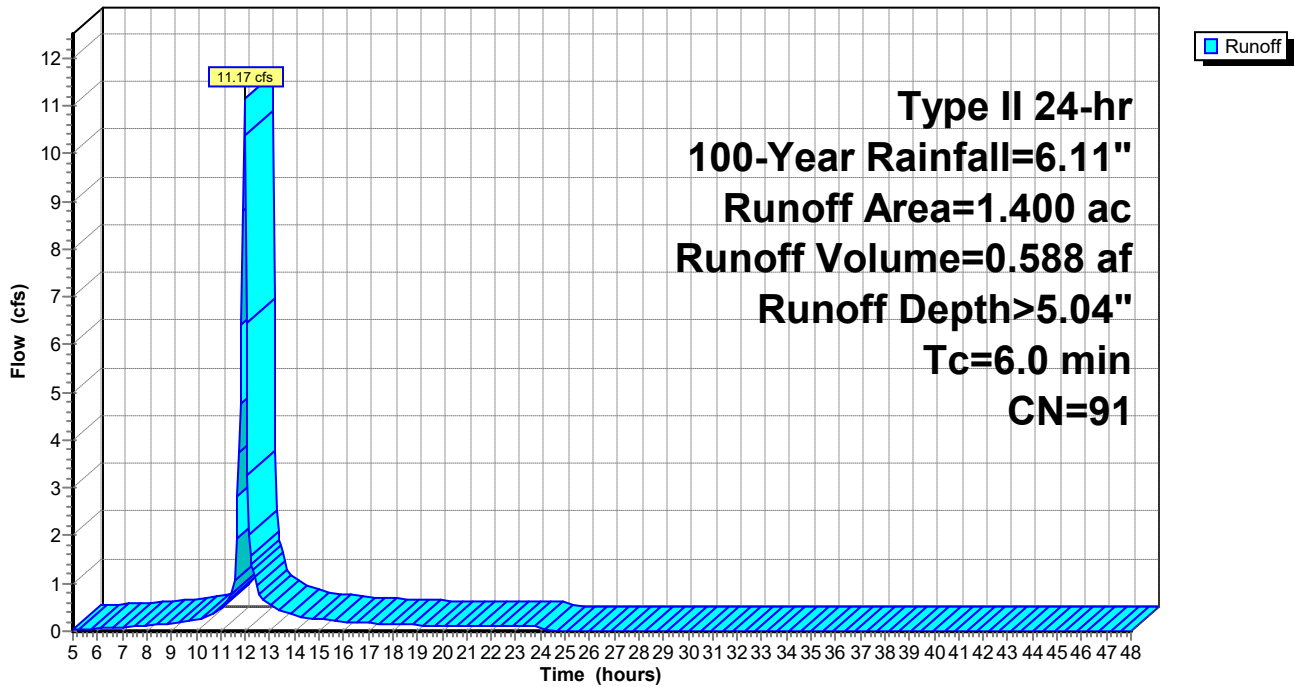
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
0.430	79	Woods, Fair, HSG D
0.970	96	Gravel surface, HSG D
1.400	91	Weighted Average
1.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-12: Normans Kill Bank**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-13: Roadway**

Runoff = 4.32 cfs @ 11.98 hrs, Volume= 0.208 af, Depth= 2.08"

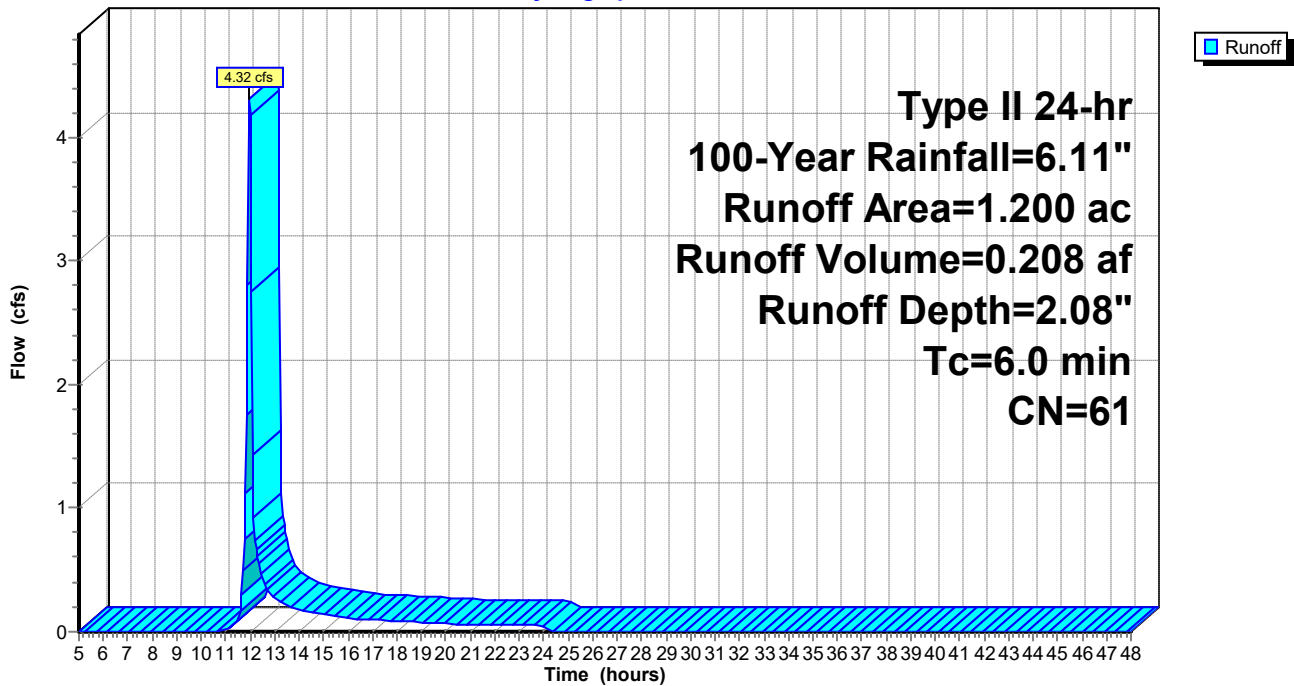
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 0.450	98	Pavement
0.750	39	>75% Grass cover, Good, HSG A
1.200	61	Weighted Average
0.750		62.50% Pervious Area
0.450		37.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-13: Roadway**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-14: Roadway**

Runoff = 7.10 cfs @ 11.97 hrs, Volume= 0.345 af, Depth= 3.18"

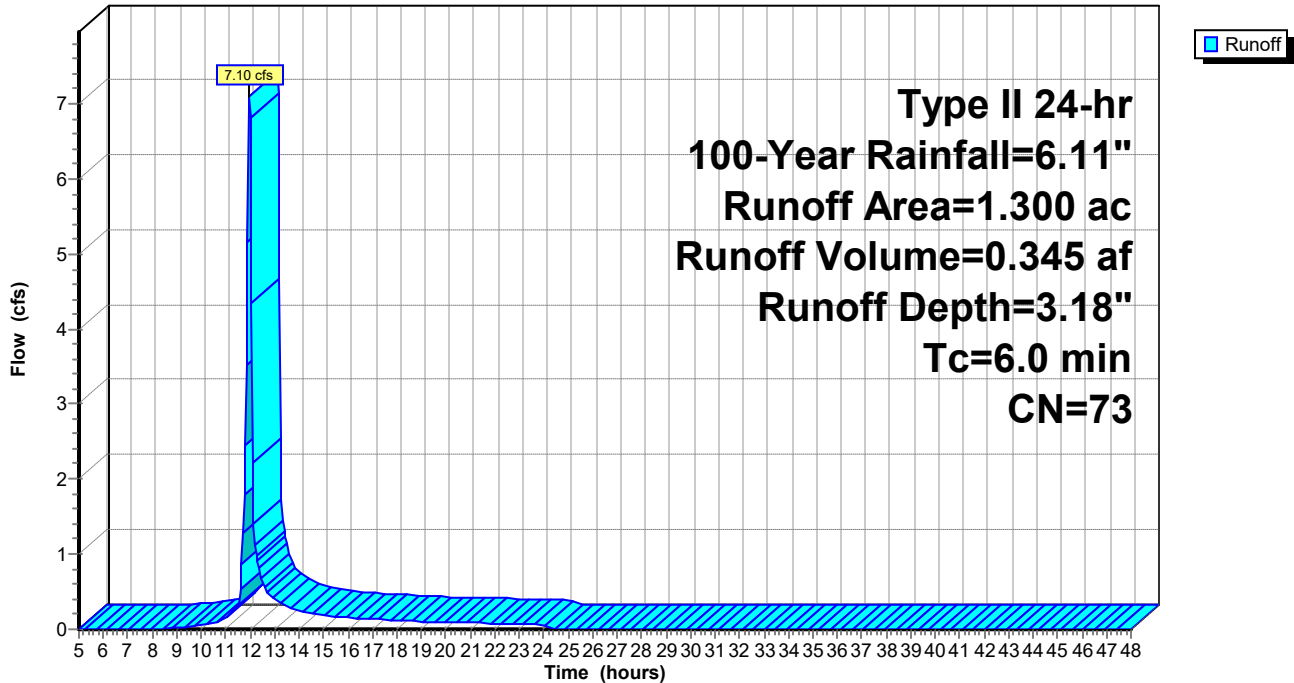
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

	Area (ac)	CN	Description
*	0.550	98	New Pavement
	0.550	39	>75% Grass cover, Good, HSG A
*	0.200	98	Mill & Fill of Old Pavement
	1.300	73	Weighted Average
	0.550		42.31% Pervious Area
	0.750		57.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-14: Roadway**

Hydrograph





**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-15: Roadway**

Runoff = 8.32 cfs @ 11.96 hrs, Volume= 0.453 af, Depth> 5.43"

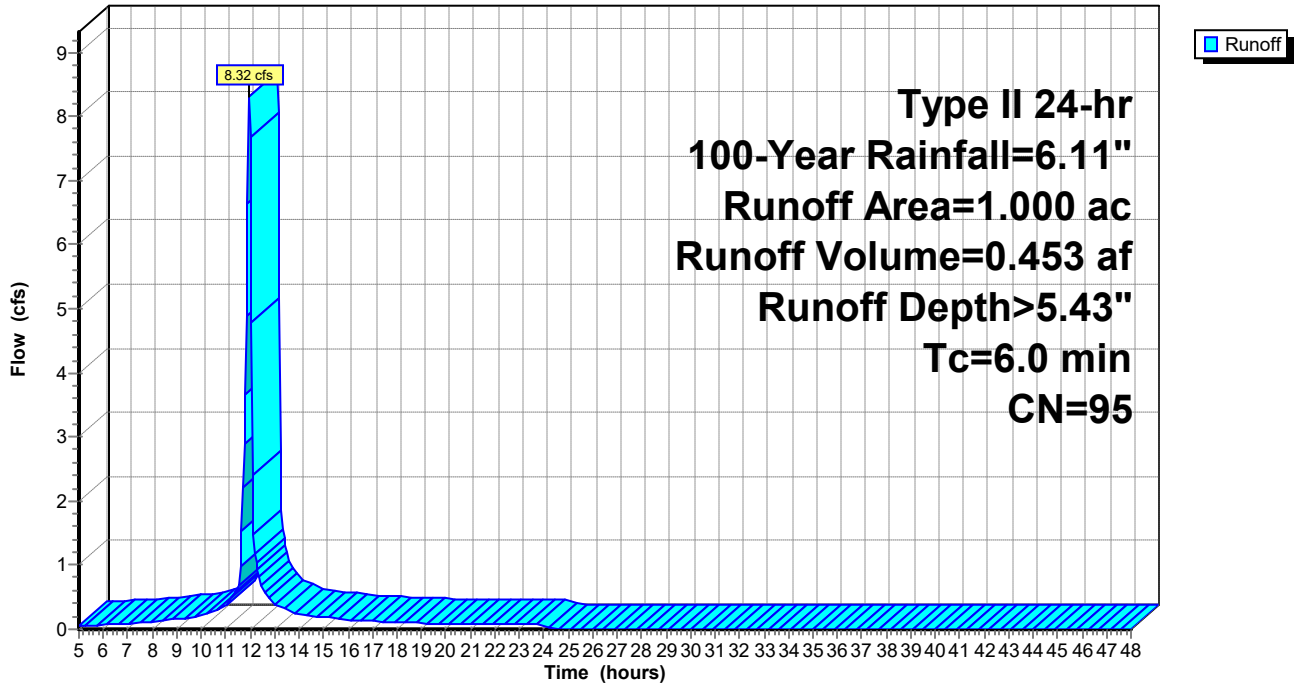
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 0.050	98	New Pavement
0.050	39	>75% Grass cover, Good, HSG A
* 0.900	98	Mill & Fill of Old Pavement
1.000	95	Weighted Average
0.050		5.00% Pervious Area
0.950		95.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min

**Subcatchment DR-15: Roadway**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-16: Undisturbed Area**

Runoff = 2.86 cfs @ 12.41 hrs, Volume= 0.537 af, Depth= 0.72"

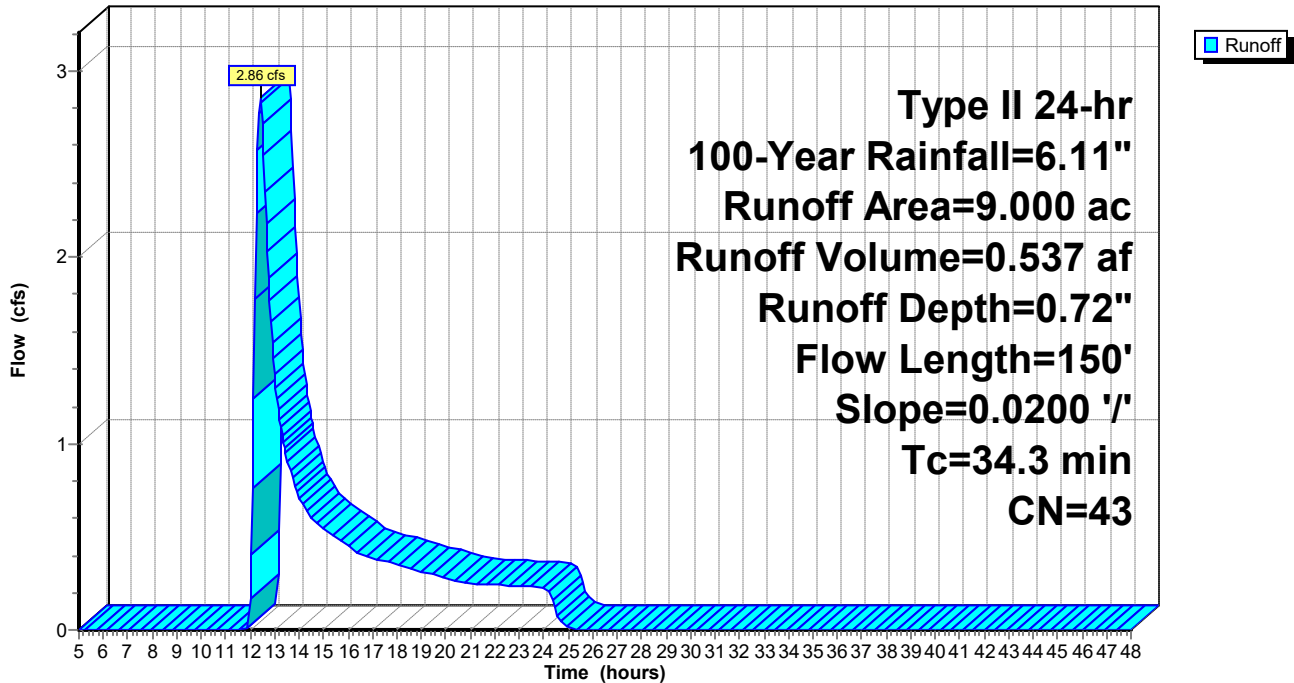
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
9.000	43	Woods/grass comb., Fair, HSG A
9.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.3	150	0.0200	0.07		<b>Sheet Flow,</b> Woods: Light underbrush n= 0.400 P2= 2.40"

**Subcatchment DR-16: Undisturbed Area**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-17: Roadway**

Runoff = 5.62 cfs @ 11.97 hrs, Volume= 0.286 af, Depth> 4.51"

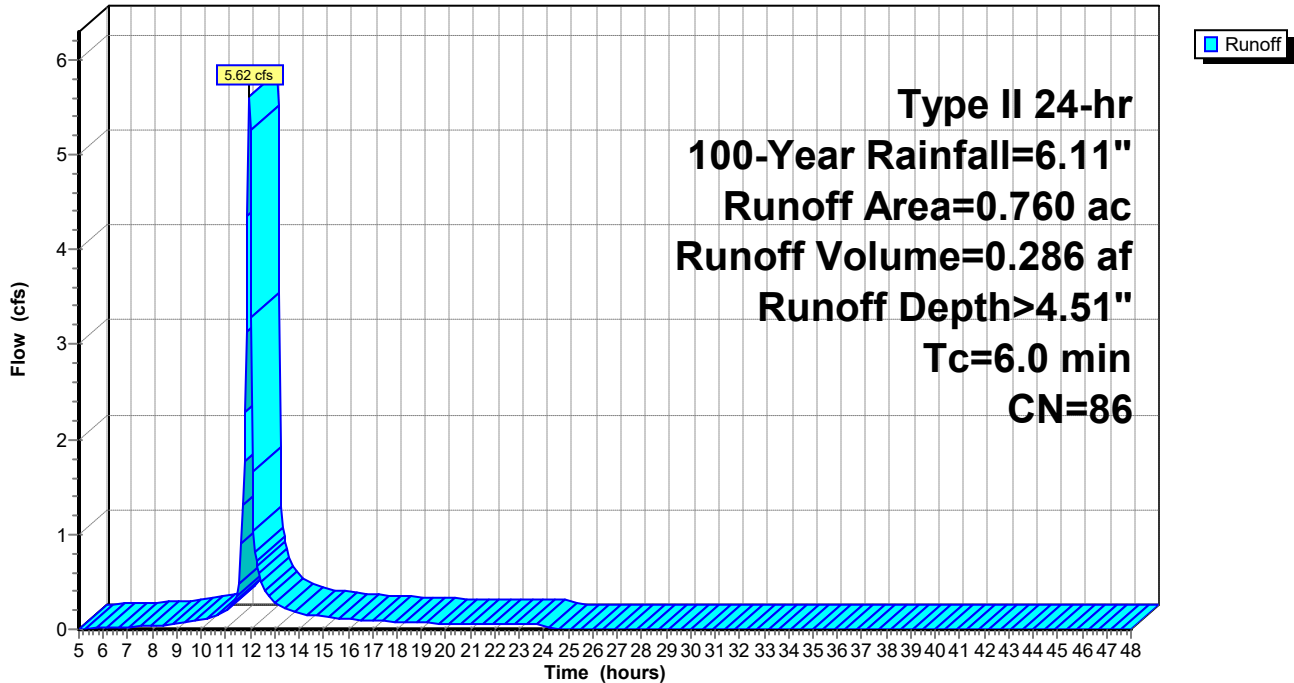
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 0.140	98	Road Widening
* 0.460	98	Roadway
0.160	39	>75% Grass cover, Good, HSG A
0.760	86	Weighted Average
0.160		21.05% Pervious Area
0.600		78.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-17: Roadway**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-2: Storage**

Runoff = 42.20 cfs @ 12.00 hrs, Volume= 2.447 af, Depth> 5.34"

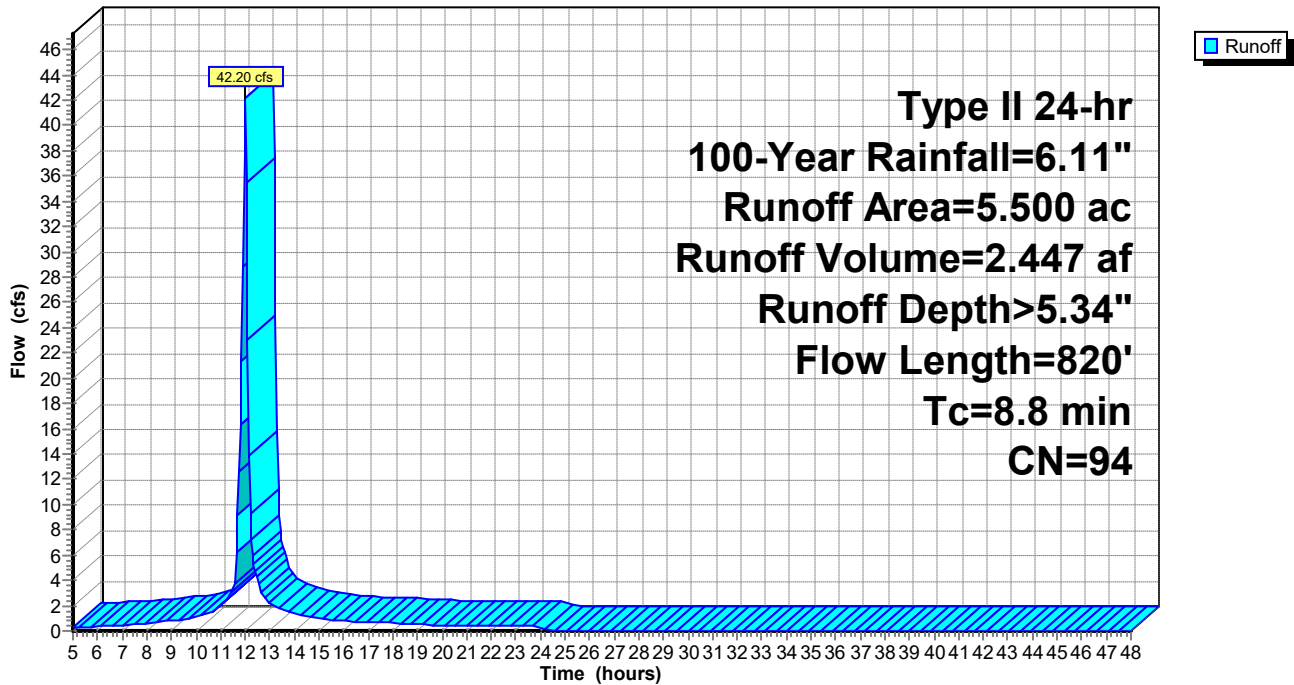
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 5.300	95	Dense Graded Aggregate
0.200	80	>75% Grass cover, Good, HSG D
5.500	94	Weighted Average
5.500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
4.9	470	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.6	250	0.0050	6.67	47.16	<b>Pipe Channel,</b> 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.013
8.8	820	Total			

**Subcatchment DR-2: Storage**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-3: Rail & Storage**

Runoff = 82.94 cfs @ 12.00 hrs, Volume= 4.980 af, Depth> 5.43"

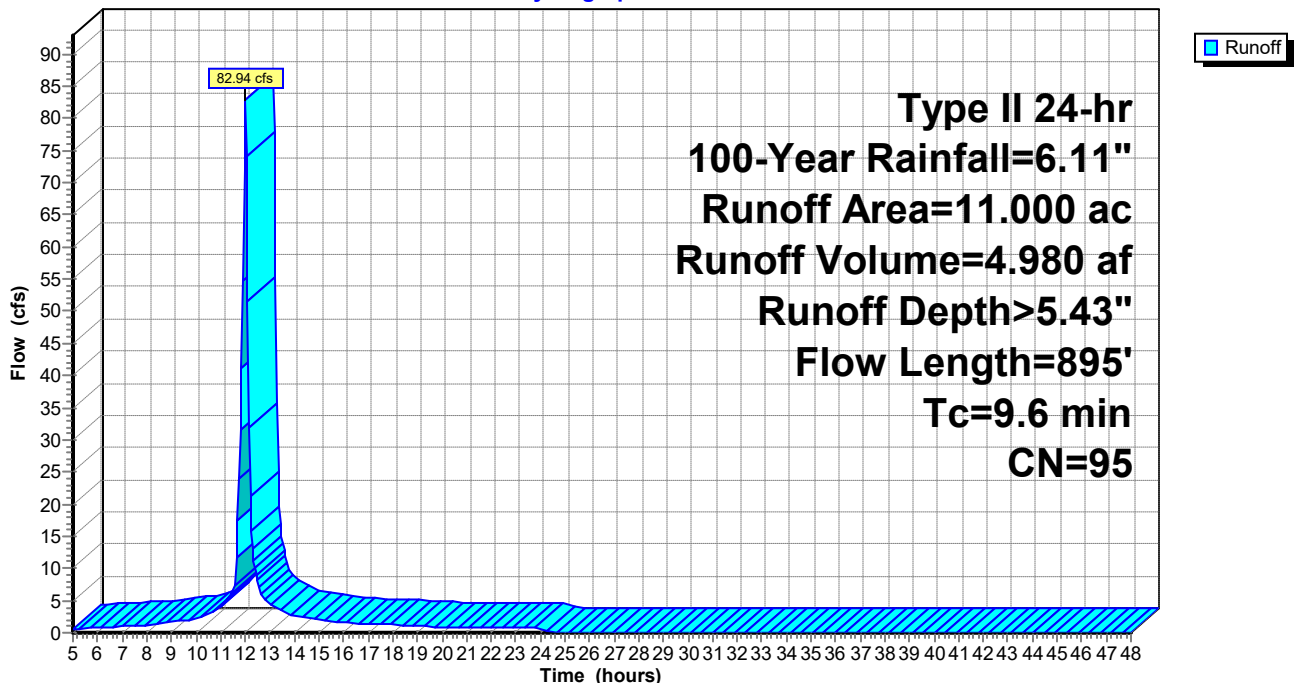
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 8.300	95	Compacted Gravel
0.400	80	>75% Grass cover, Good, HSG D
* 2.300	98	Rail
11.000	95	Weighted Average
8.700		79.09% Pervious Area
2.300		20.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
5.4	525	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.9	270	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
9.6	895	Total			

**Subcatchment DR-3: Rail & Storage**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-4: Storage**

Runoff = 69.96 cfs @ 11.99 hrs, Volume= 3.959 af, Depth> 5.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

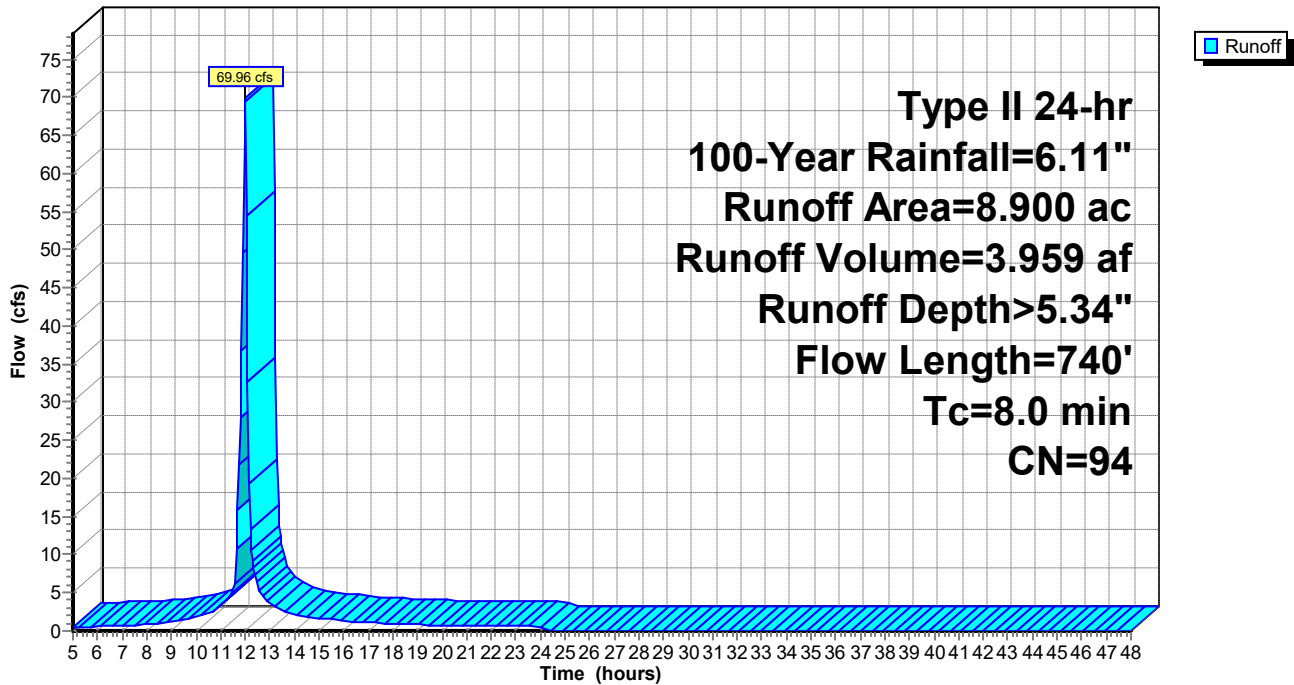
Area (ac)	CN	Description
* 8.600	95	Compacted Gravel
0.300	80	>75% Grass cover, Good, HSG D
8.900	94	Weighted Average
8.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
4.1	400	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
0.6	240	0.0050	6.67	47.16	<b>Pipe Channel,</b> 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.013 Corrugated PE, smooth interior
8.0	740	Total			

**Subcatchment DR-4: Storage**

Hydrograph



**18641.00-Proposed Condition**

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Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-5: Storage**

Runoff = 41.34 cfs @ 11.98 hrs, Volume= 2.313 af, Depth> 5.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

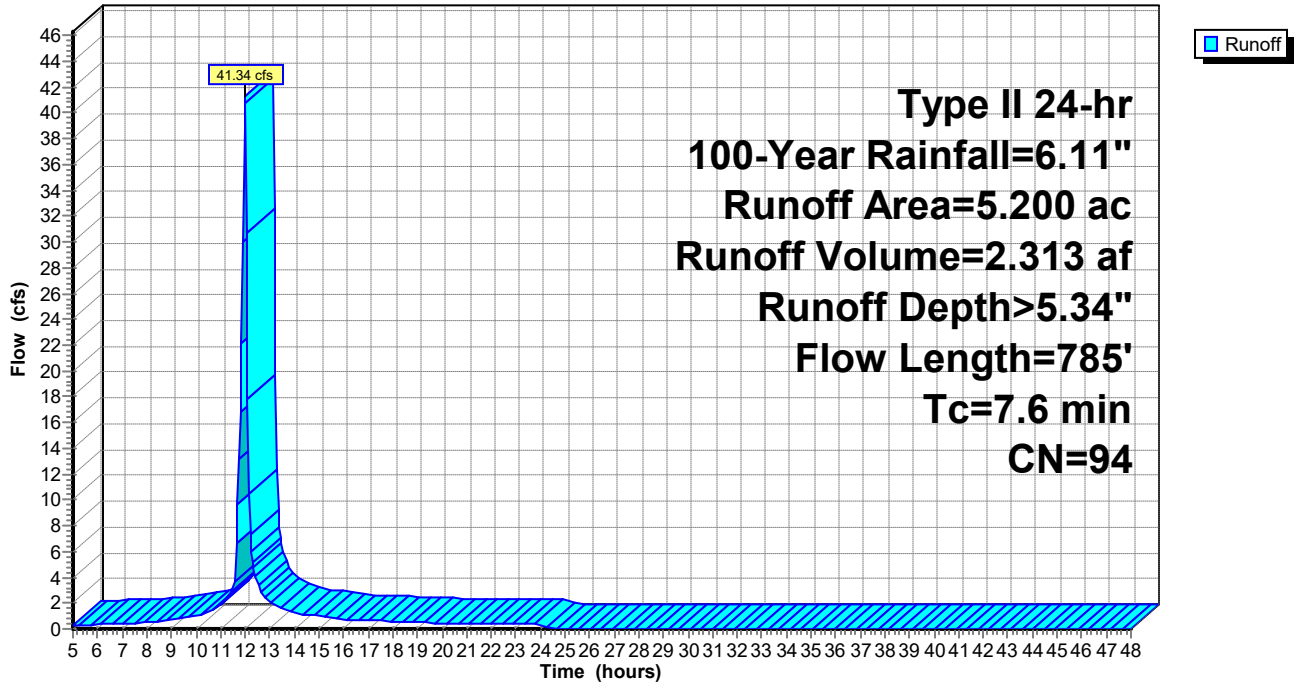
Area (ac)	CN	Description
* 4.900	95	Dense Graded Aggregate
0.300	80	>75% Grass cover, Good, HSG D
5.200	94	Weighted Average
5.200		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
3.0	285	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
1.3	400	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
7.6	785	Total			

**Subcatchment DR-5: Storage**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-6: Buldings B & D**

Runoff = 92.04 cfs @ 11.99 hrs, Volume= 5.428 af, Depth> 5.52"

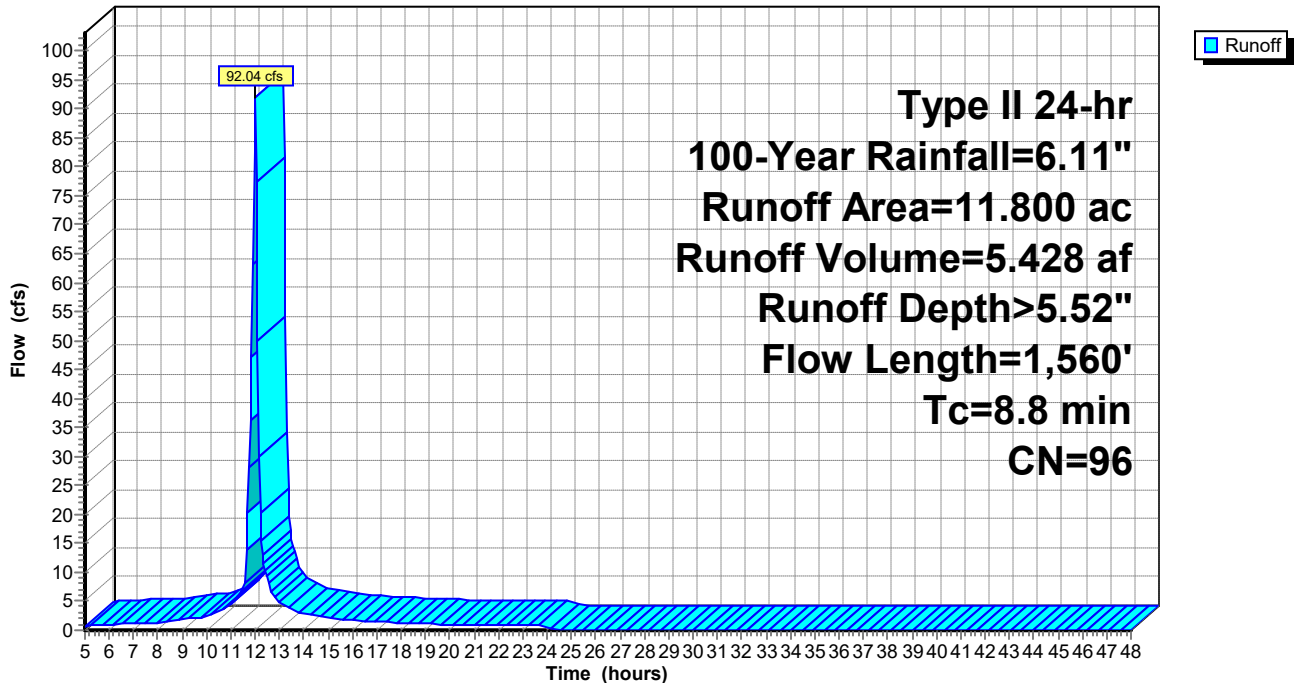
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 2.549	98	Building B
* 1.413	98	Building D
0.200	80	>75% Grass cover, Good, HSG D
* 7.638	95	Dense Graded Aggregate
11.800	96	Weighted Average
7.838		66.42% Pervious Area
3.962		33.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
1.0	100	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
4.5	1,360	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50 n= 0.013
8.8	1,560	Total			

**Subcatchment DR-6: Buldings B & D**

Hydrograph





**18641.00-Proposed Condition**

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Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-7: Building C & Rail**

Runoff = 65.86 cfs @ 12.00 hrs, Volume= 4.003 af, Depth> 5.52"

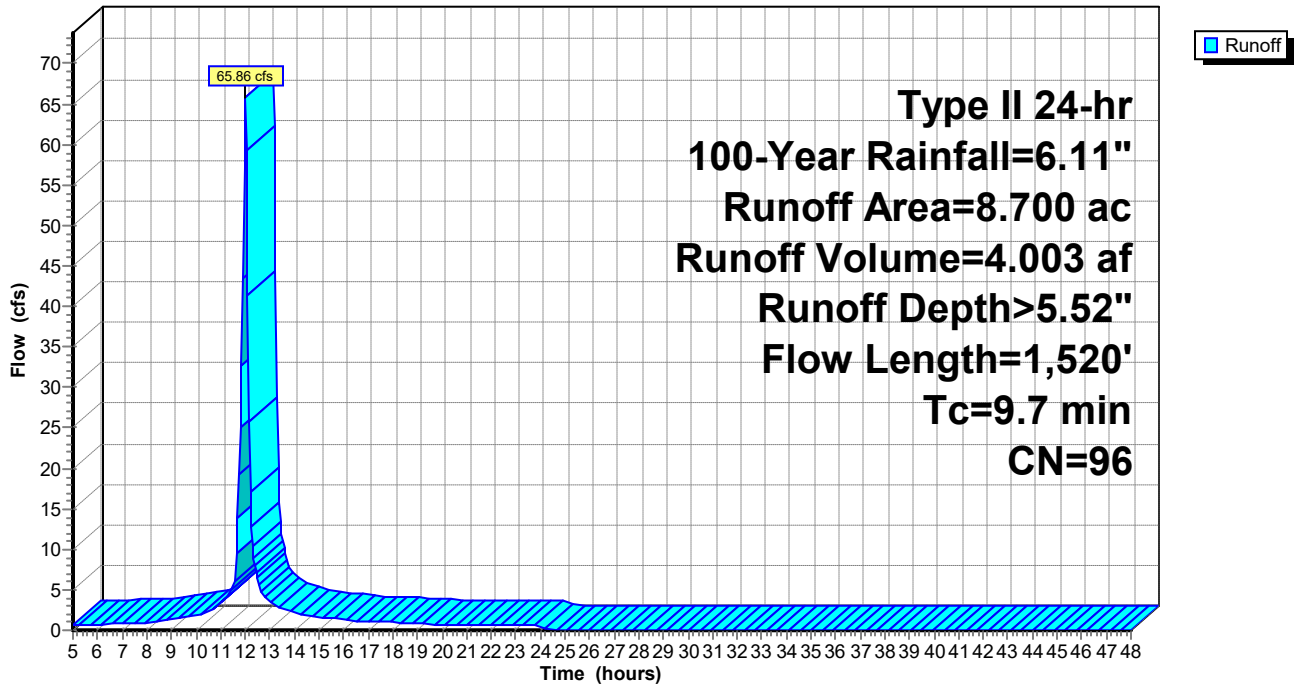
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 3.030	98	Building C
* 0.970	98	Rail
* 4.400	95	Dense Graded Aggregate
0.300	80	>75% Grass cover, Good, HSG D
8.700	96	Weighted Average
4.700		54.02% Pervious Area
4.000		45.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	100	0.0100	0.50		<b>Sheet Flow,</b> n= 0.023 P2= 2.40"
2.6	250	0.0100	1.61		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
3.8	1,170	0.0050	5.09	16.00	<b>Pipe Channel,</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
9.7	1,520	Total			

**Subcatchment DR-7: Building C & Rail**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-8A: Parking**

Runoff = 15.81 cfs @ 11.96 hrs, Volume= 0.860 af, Depth> 5.43"

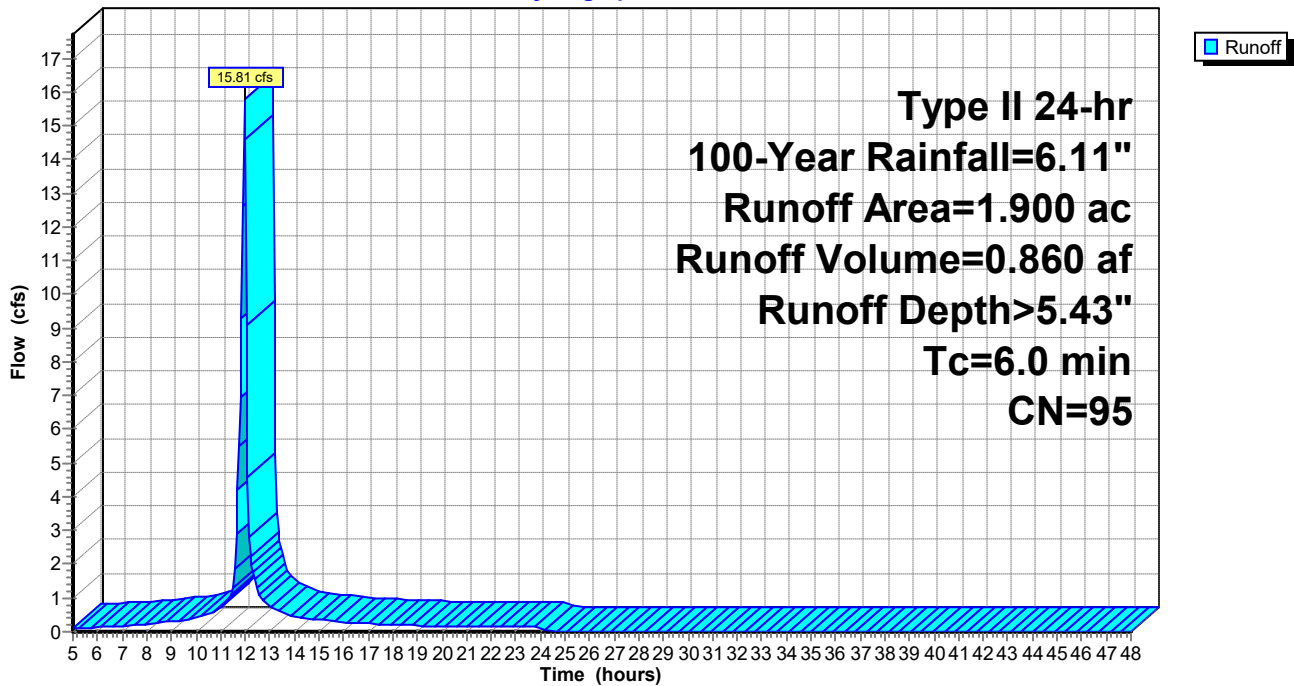
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 1.600	98	Parking
0.300	80	>75% Grass cover, Good, HSG D
1.900	95	Weighted Average
0.300		15.79% Pervious Area
1.600		84.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-8A: Parking**

Hydrograph



**18641.00-Proposed Condition**

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**Summary for Subcatchment DR-8B: Roadway & Pond**

Runoff = 7.26 cfs @ 11.97 hrs, Volume= 0.367 af, Depth> 4.41"

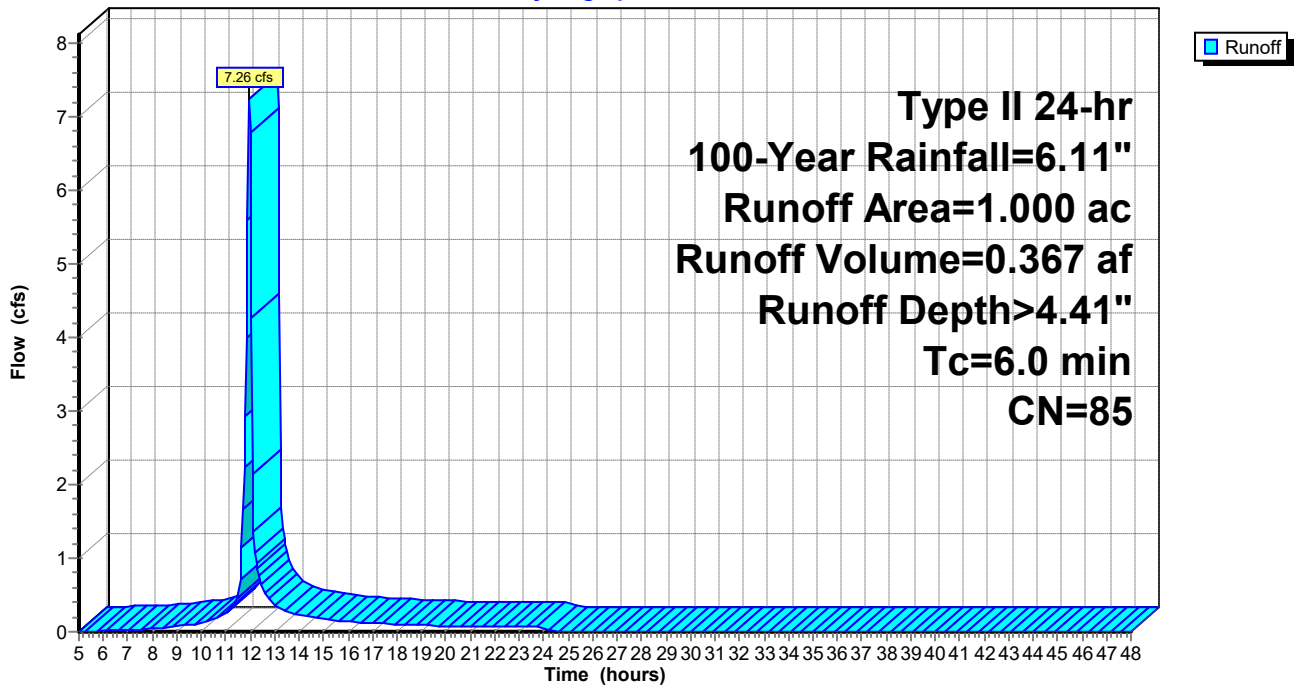
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 0.300	98	Roadway
0.700	80	>75% Grass cover, Good, HSG D
1.000	85	Weighted Average
0.700		70.00% Pervious Area
0.300		30.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum

**Subcatchment DR-8B: Roadway & Pond**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-9A: Parking & Substation**

Runoff = 12.25 cfs @ 12.04 hrs, Volume= 0.815 af, Depth> 5.44"

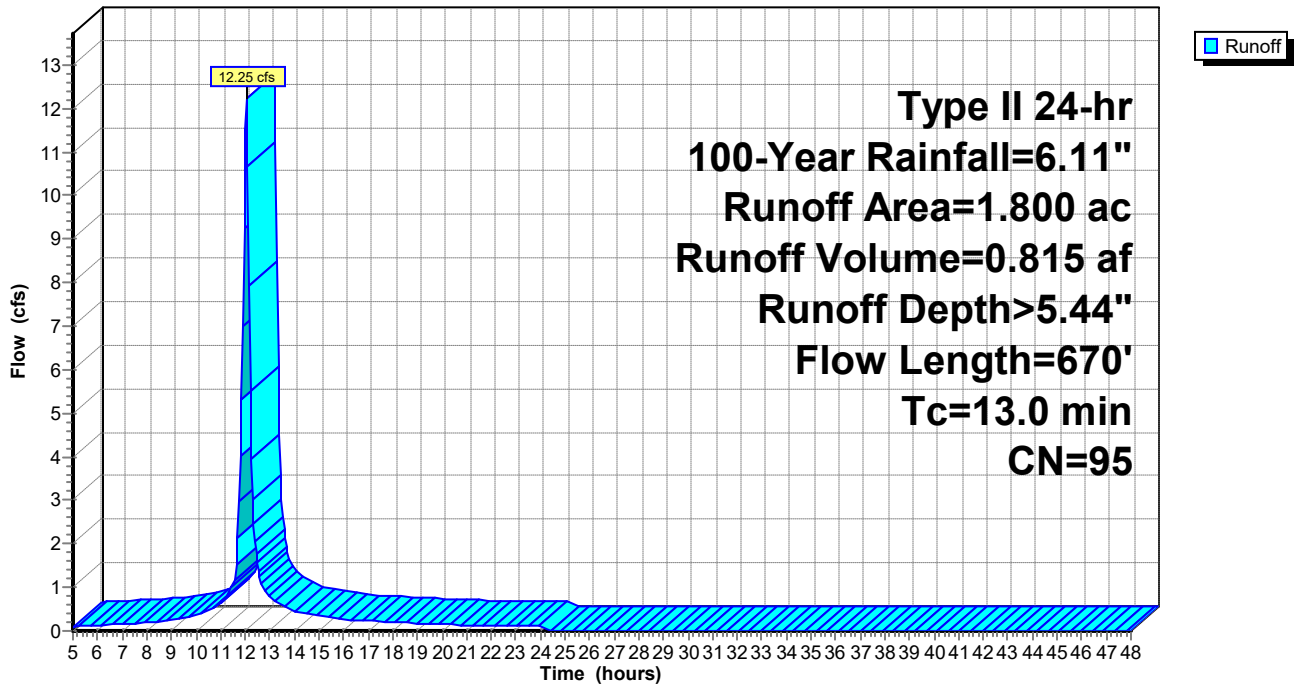
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
0.230	80	>75% Grass cover, Good, HSG D
* 0.200	92	Compacted Gravel
* 1.200	98	Parking and Road
* 0.170	98	Substation
1.800	95	Weighted Average
0.430		23.89% Pervious Area
1.370		76.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0200	1.19		<b>Sheet Flow, Parking Lot Runoff</b> Smooth surfaces n= 0.011 P2= 2.40"
11.6	570	0.0030	0.82		<b>Shallow Concentrated Flow, Grass Lined Ditch to Pond</b> Grassed Waterway Kv= 15.0 fps
13.0	670	Total			

**Subcatchment DR-9A: Parking & Substation**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Subcatchment DR-9B: Roadway**

Runoff = 30.42 cfs @ 11.96 hrs, Volume= 1.504 af, Depth> 4.51"

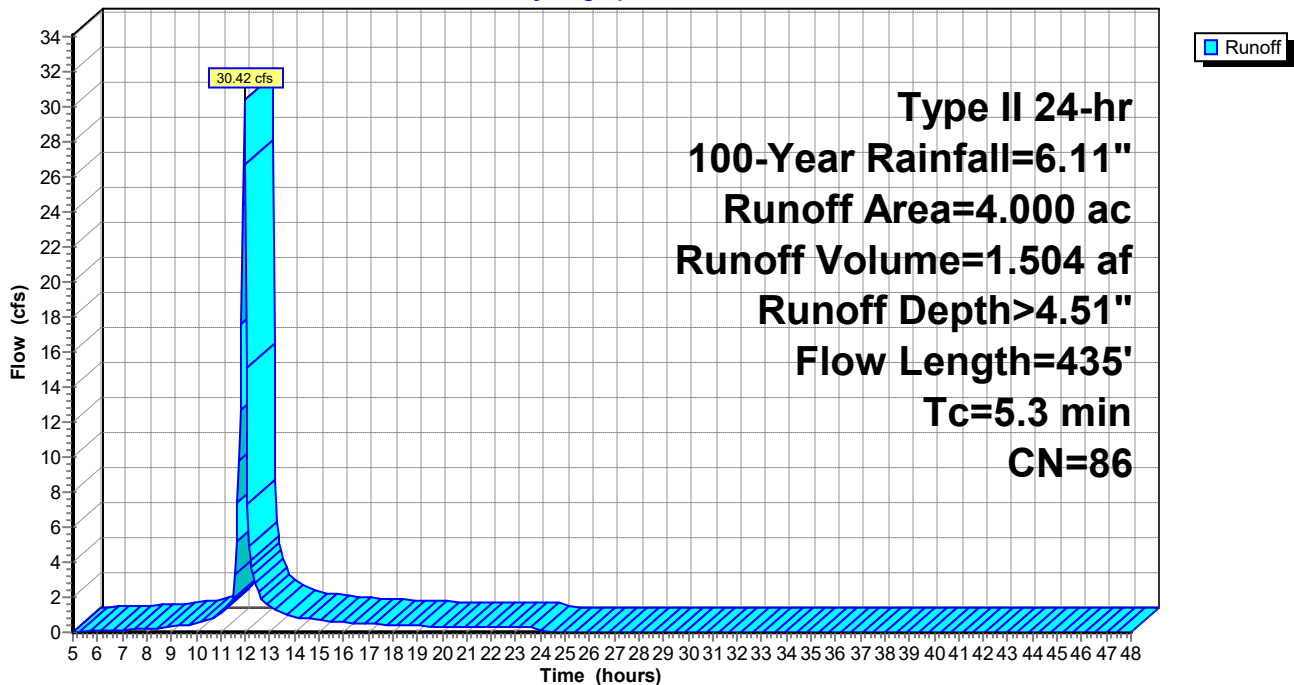
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 1.050	95	Dense Graded Aggregate
* 0.480	98	Roadway
2.470	80	>75% Grass cover, Good, HSG D
4.000	86	Weighted Average
3.520		88.00% Pervious Area
0.480		12.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	100	0.0250	0.46		<b>Sheet Flow, Dense Graded Aggregate Yard</b> n= 0.040 P2= 2.40"
1.3	230	0.0100	3.07	9.20	<b>Channel Flow, Grass lined ditch</b> Area= 3.0 sf Perim= 4.0' r= 0.75' n= 0.040 Earth, cobble bottom, clean sides
0.4	105	0.0050	4.20	7.43	<b>Pipe Channel, driveway culvert</b> 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
5.3	435	Total			

**Subcatchment DR-9B: Roadway**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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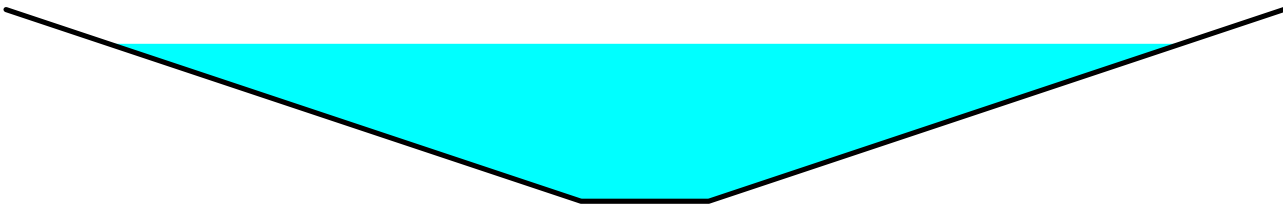
**Summary for Reach 1R: Swale**

Inflow Area = 1.900 ac, 84.21% Impervious, Inflow Depth > 5.43" for 100-Year event  
 Inflow = 15.81 cfs @ 11.96 hrs, Volume= 0.860 af  
 Outflow = 13.37 cfs @ 12.09 hrs, Volume= 0.860 af, Atten= 15%, Lag= 7.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 2.38 fps, Min. Travel Time= 4.8 min  
 Avg. Velocity = 0.71 fps, Avg. Travel Time= 16.3 min

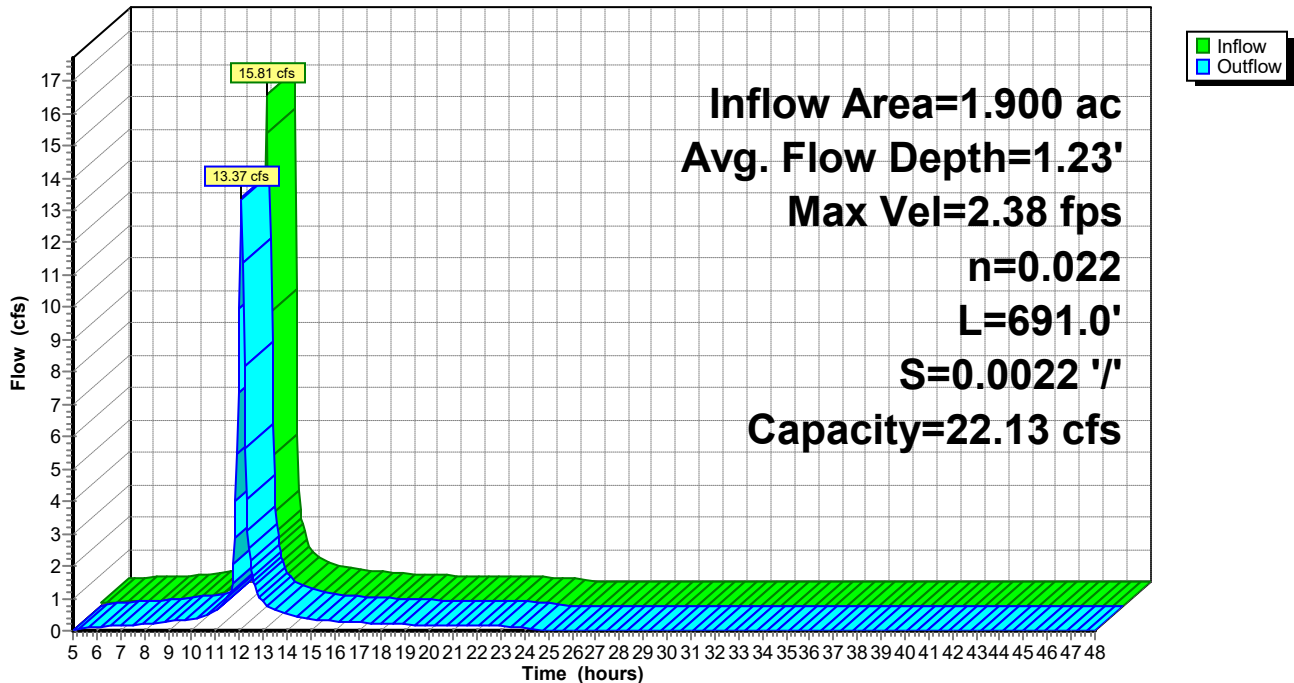
Peak Storage= 3,995 cf @ 12.01 hrs  
 Average Depth at Peak Storage= 1.23' , Surface Width= 8.39'  
 Bank-Full Depth= 1.50' Flow Area= 8.3 sf, Capacity= 22.13 cfs

1.00' x 1.50' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 '/' Top Width= 10.00'  
 Length= 691.0' Slope= 0.0022 '/'  
 Inlet Invert= 15.50', Outlet Invert= 14.00'



**Reach 1R: Swale**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Reach 1W: Wetland #1**

Inflow Area = 28.500 ac, 13.16% Impervious, Inflow Depth > 4.10" for 100-Year event  
 Inflow = 31.39 cfs @ 13.06 hrs, Volume= 9.744 af  
 Outflow = 18.25 cfs @ 16.00 hrs, Volume= 9.488 af, Atten= 42%, Lag= 176.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.14 fps, Min. Travel Time= 118.6 min  
 Avg. Velocity = 0.05 fps, Avg. Travel Time= 314.5 min

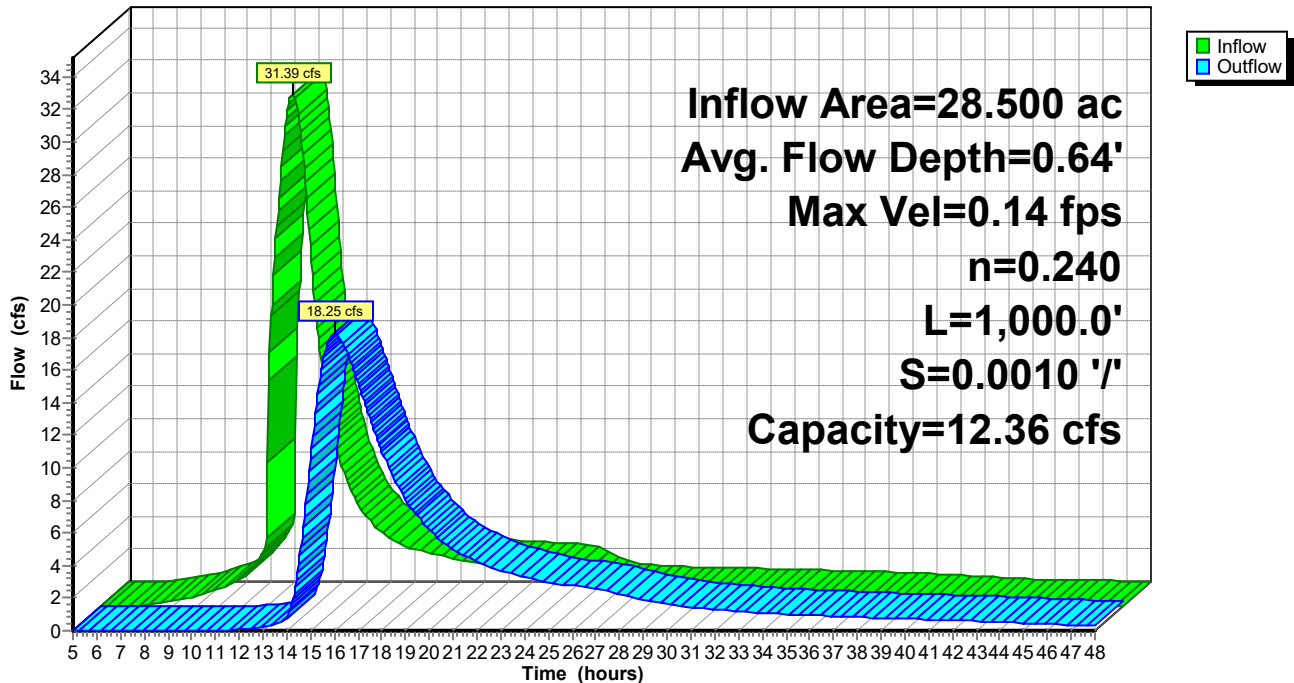
Peak Storage= 129,840 cf @ 14.02 hrs  
 Average Depth at Peak Storage= 0.64' , Surface Width= 203.86'  
 Bank-Full Depth= 0.50' Flow Area= 100.8 sf, Capacity= 12.36 cfs

200.00' x 0.50' deep channel, n= 0.240  
 Side Slope Z-value= 3.0 '/' Top Width= 203.00'  
 Length= 1,000.0' Slope= 0.0010 '/'  
 Inlet Invert= 6.00', Outlet Invert= 5.00'



**Reach 1W: Wetland #1**

Hydrograph



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Type II 24-hr 100-Year Rainfall=6.11"

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## Summary for Reach 2R: Overflow

Inflow Area = 5.800 ac, 31.90% Impervious, Inflow Depth > 4.76" for 100-Year event  
Inflow = 11.88 cfs @ 12.17 hrs, Volume= 2.302 af  
Outflow = 12.09 cfs @ 12.16 hrs, Volume= 2.302 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 2.54 fps, Min. Travel Time= 0.3 min  
Avg. Velocity = 1.25 fps, Avg. Travel Time= 0.7 min

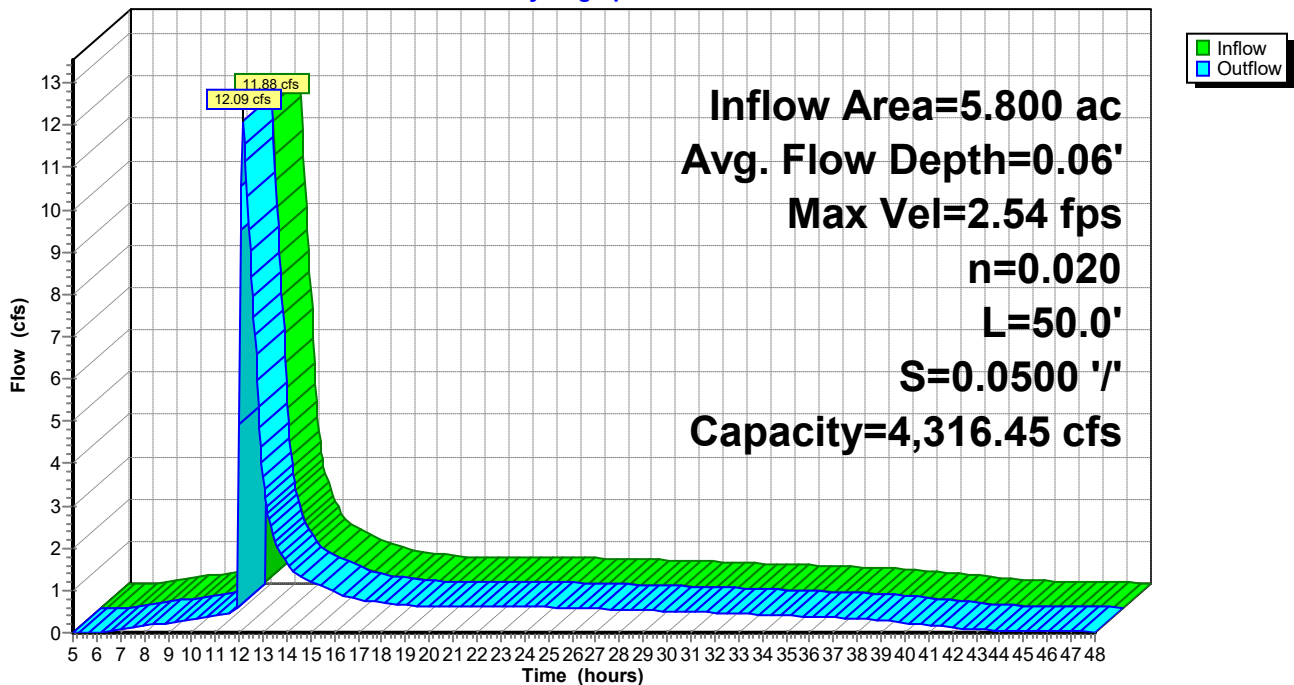
Peak Storage= 241 cf @ 12.16 hrs  
Average Depth at Peak Storage= 0.06', Surface Width= 80.36'  
Bank-Full Depth= 2.00' Flow Area= 172.0 sf, Capacity= 4,316.45 cfs

80.00' x 2.00' deep channel, n= 0.020 Corrugated PE, corrugated interior  
Side Slope Z-value= 3.0 ' / ' Top Width= 92.00'  
Length= 50.0' Slope= 0.0500 ' / '  
Inlet Invert= 16.50', Outlet Invert= 14.00'



## Reach 2R: Overflow

### Hydrograph





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Type II 24-hr 100-Year Rainfall=6.11"

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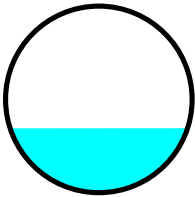
## Summary for Reach 3R: Outlet Pipe

Inflow Area = 28.500 ac, 13.16% Impervious, Inflow Depth > 3.99" for 100-Year event  
Inflow = 18.25 cfs @ 16.00 hrs, Volume= 9.488 af  
Outflow = 18.25 cfs @ 16.00 hrs, Volume= 9.487 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 6.80 fps, Min. Travel Time= 0.2 min  
Avg. Velocity = 3.27 fps, Avg. Travel Time= 0.4 min

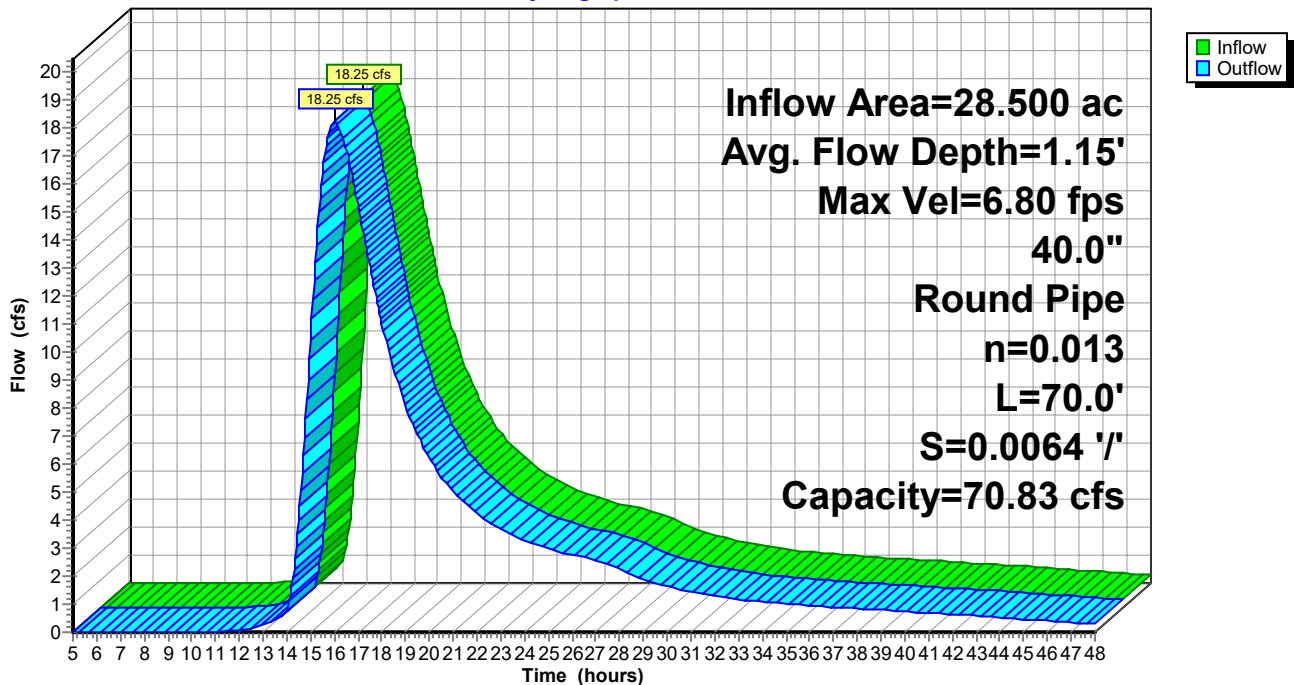
Peak Storage= 188 cf @ 16.00 hrs  
Average Depth at Peak Storage= 1.15' , Surface Width= 3.17'  
Bank-Full Depth= 3.33' Flow Area= 8.7 sf, Capacity= 70.83 cfs

40.0" Round Pipe  
n= 0.013 Corrugated PE, smooth interior  
Length= 70.0' Slope= 0.0064 '/'  
Inlet Invert= 4.25', Outlet Invert= 3.80'



## Reach 3R: Outlet Pipe

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Reach 4R: Overflow**

Inflow Area = 1.000 ac, 95.00% Impervious, Inflow Depth > 5.43" for 100-Year event  
 Inflow = 8.17 cfs @ 11.98 hrs, Volume= 0.452 af  
 Outflow = 8.00 cfs @ 11.99 hrs, Volume= 0.452 af, Atten= 2%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 3.21 fps, Min. Travel Time= 0.5 min  
 Avg. Velocity = 0.87 fps, Avg. Travel Time= 1.9 min

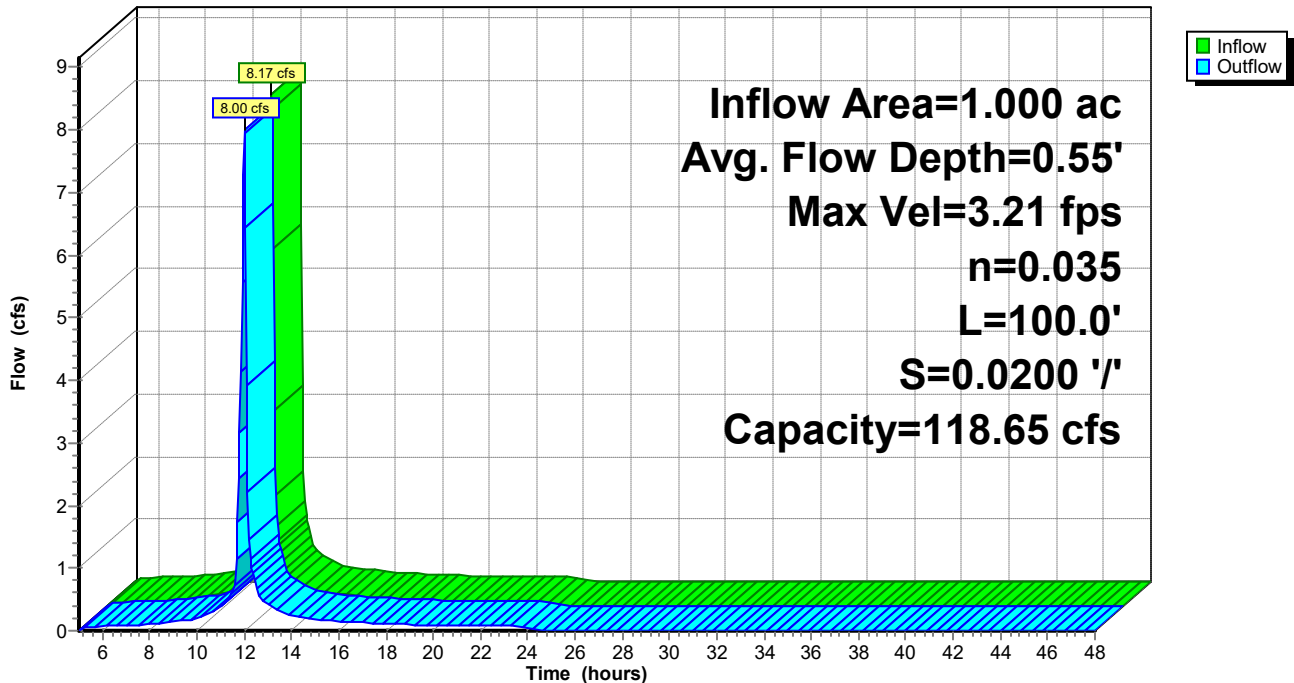
Peak Storage= 253 cf @ 11.98 hrs  
 Average Depth at Peak Storage= 0.55' , Surface Width= 6.28'  
 Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 118.65 cfs

3.00' x 2.00' deep channel, n= 0.035 Riprap, 6-inch  
 Side Slope Z-value= 3.0 '/' Top Width= 15.00'  
 Length= 100.0' Slope= 0.0200 '/'  
 Inlet Invert= 12.00', Outlet Invert= 10.00'



**Reach 4R: Overflow**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Reach 5R: Overflow**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 1.29" for 100-Year event  
 Inflow = 3.07 cfs @ 12.15 hrs, Volume= 0.129 af  
 Outflow = 2.13 cfs @ 12.18 hrs, Volume= 0.129 af, Atten= 30%, Lag= 2.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 1.90 fps, Min. Travel Time= 1.1 min  
 Avg. Velocity = 0.59 fps, Avg. Travel Time= 3.6 min

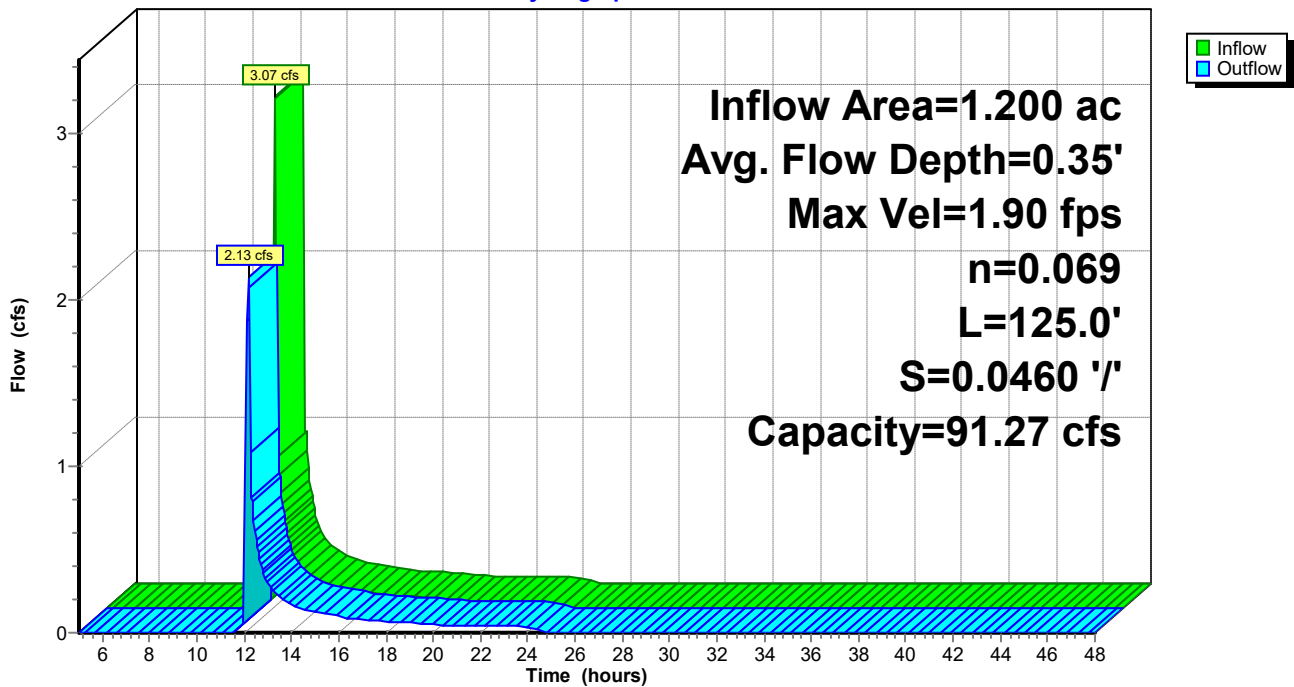
Peak Storage= 174 cf @ 12.16 hrs  
 Average Depth at Peak Storage= 0.35' , Surface Width= 5.08'  
 Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 91.27 cfs

3.00' x 2.00' deep channel, n= 0.069 Riprap, 6-inch  
 Side Slope Z-value= 3.0 '/' Top Width= 15.00'  
 Length= 125.0' Slope= 0.0460 '/'  
 Inlet Invert= 11.75', Outlet Invert= 6.00'



**Reach 5R: Overflow**

Hydrograph



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Type II 24-hr 100-Year Rainfall=6.11"

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## Summary for Reach 6R: Overflow

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 2.69" for 100-Year event  
Inflow = 5.69 cfs @ 12.14 hrs, Volume= 0.291 af  
Outflow = 5.54 cfs @ 12.16 hrs, Volume= 0.291 af, Atten= 3%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 2.86 fps, Min. Travel Time= 0.6 min  
Avg. Velocity = 0.84 fps, Avg. Travel Time= 2.0 min

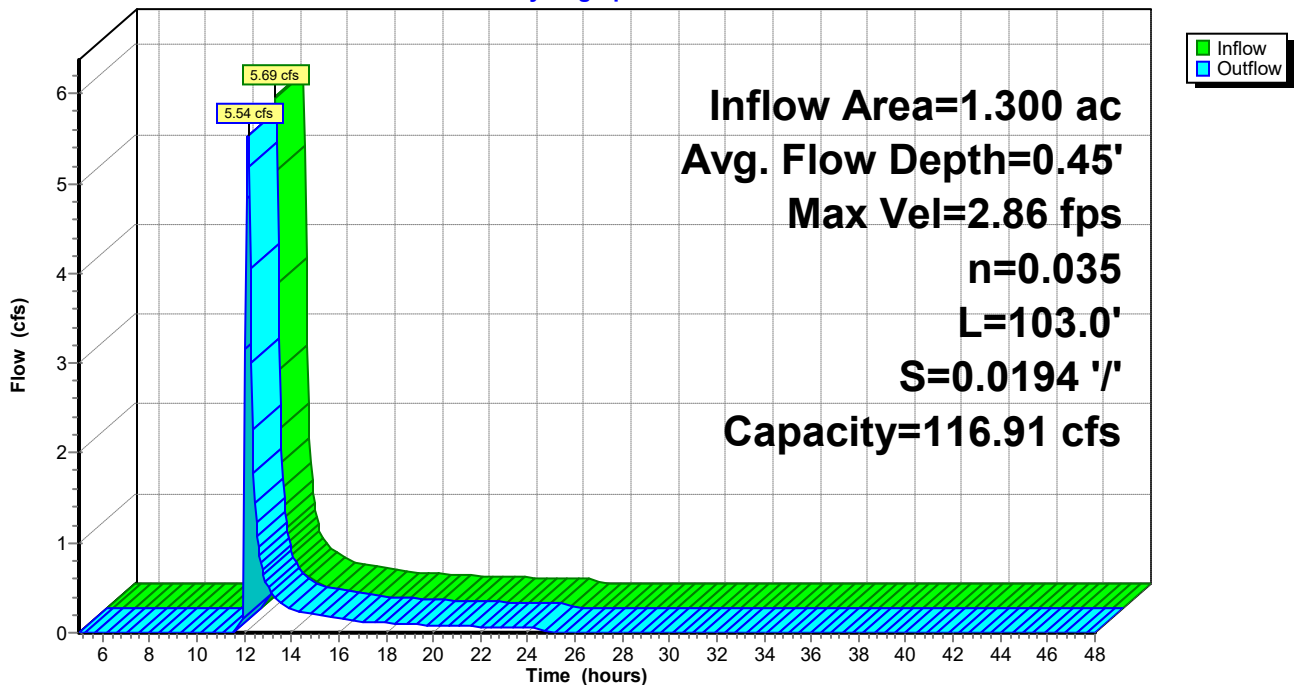
Peak Storage= 203 cf @ 12.15 hrs  
Average Depth at Peak Storage= 0.45' , Surface Width= 5.71'  
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 116.91 cfs

3.00' x 2.00' deep channel, n= 0.035 Riprap, 6-inch  
Side Slope Z-value= 3.0 '/' Top Width= 15.00'  
Length= 103.0' Slope= 0.0194 '/'  
Inlet Invert= 8.50', Outlet Invert= 6.50'



### Reach 6R: Overflow

#### Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Reach 7R: Overflow**

Inflow Area = 2.900 ac, 65.52% Impervious, Inflow Depth > 5.00" for 100-Year event  
 Inflow = 3.30 cfs @ 12.40 hrs, Volume= 1.209 af  
 Outflow = 3.28 cfs @ 12.44 hrs, Volume= 1.209 af, Atten= 0%, Lag= 2.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 1.35 fps, Min. Travel Time= 1.2 min  
 Avg. Velocity = 0.53 fps, Avg. Travel Time= 3.2 min

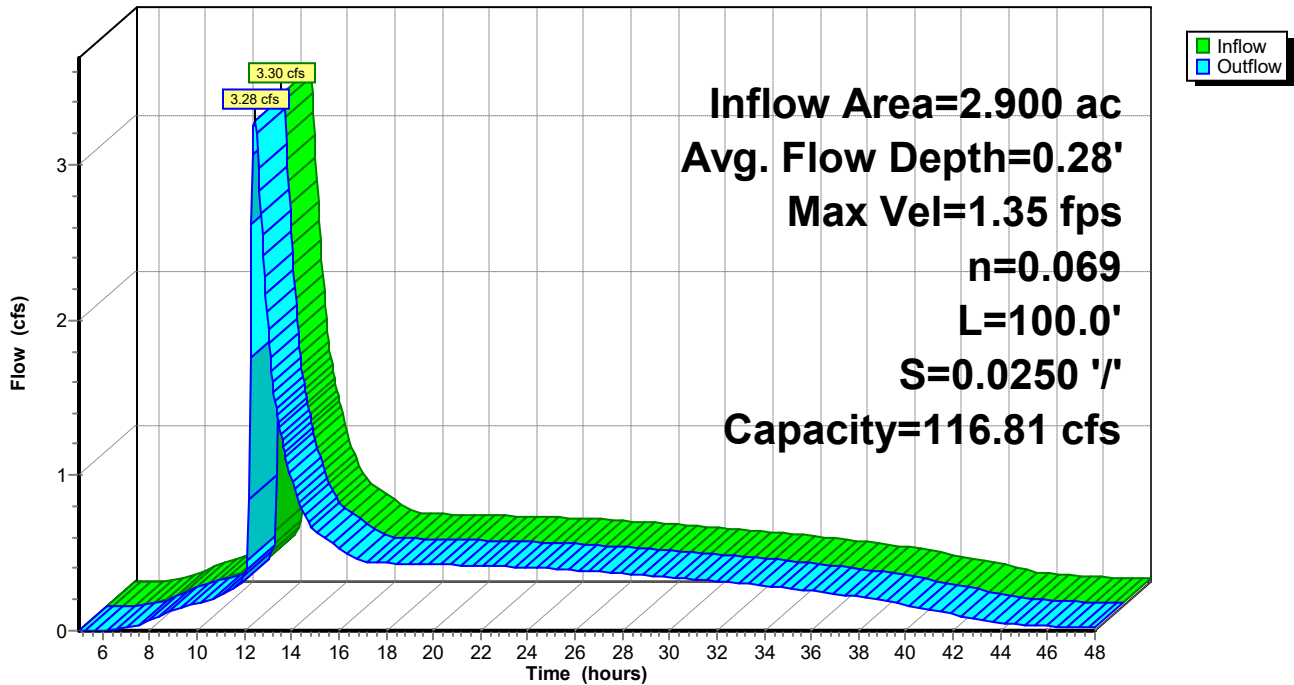
Peak Storage= 244 cf @ 12.42 hrs  
 Average Depth at Peak Storage= 0.28' , Surface Width= 9.66'  
 Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 116.81 cfs

8.00' x 2.00' deep channel, n= 0.069 Riprap, 6-inch  
 Side Slope Z-value= 3.0 '/ Top Width= 20.00'  
 Length= 100.0' Slope= 0.0250 '/  
 Inlet Invert= 14.50', Outlet Invert= 12.00'



**Reach 7R: Overflow**

Hydrograph



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Type II 24-hr 100-Year Rainfall=6.11"

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## Summary for Reach 8R: Dry Swale

Inflow Area = 1.000 ac, 95.00% Impervious, Inflow Depth > 5.43" for 100-Year event  
Inflow = 8.32 cfs @ 11.96 hrs, Volume= 0.453 af  
Outflow = 8.17 cfs @ 11.98 hrs, Volume= 0.452 af, Atten= 2%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 3.41 fps, Min. Travel Time= 0.5 min  
Avg. Velocity = 0.96 fps, Avg. Travel Time= 1.8 min

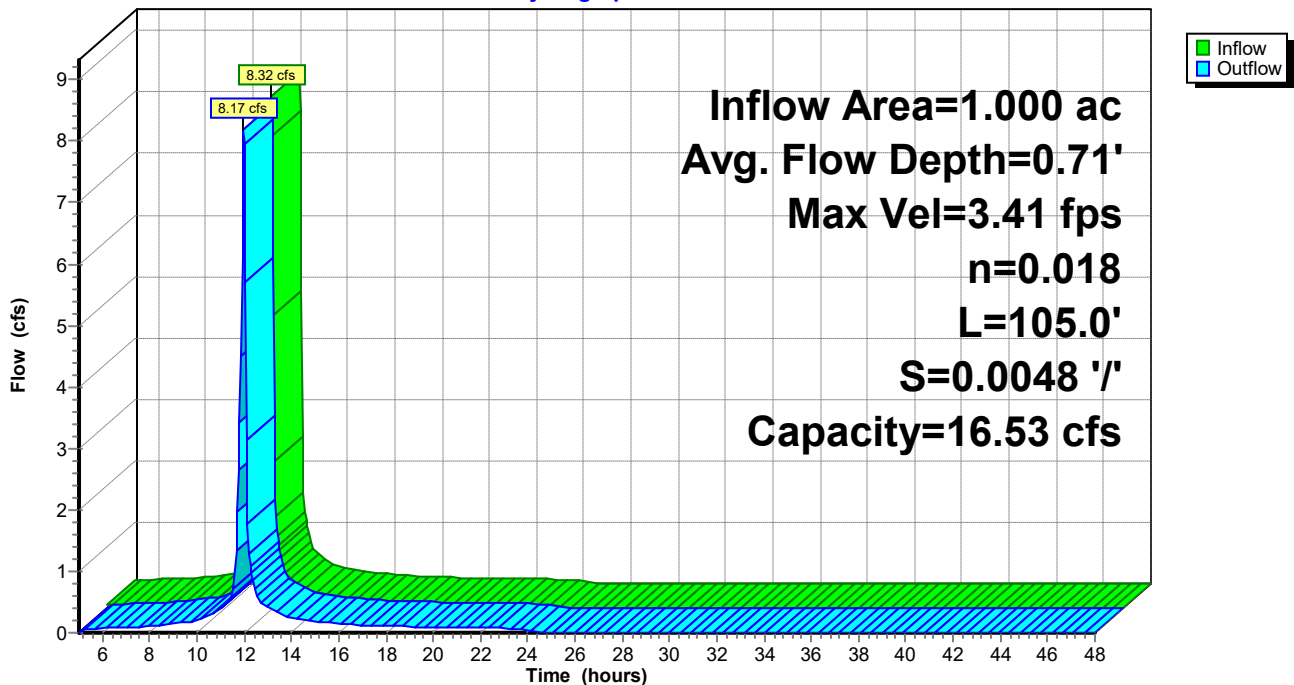
Peak Storage= 252 cf @ 11.97 hrs  
Average Depth at Peak Storage= 0.71' , Surface Width= 4.82'  
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 16.53 cfs

2.00' x 1.00' deep channel, n= 0.018 Earth, clean & straight  
Side Slope Z-value= 2.0 ' / ' Top Width= 6.00'  
Length= 105.0' Slope= 0.0048 ' / '  
Inlet Invert= 10.00', Outlet Invert= 9.50'



### Reach 8R: Dry Swale

#### Hydrograph



**18641.00-Proposed Condition**

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**Summary for Reach 10R: Dry Swale**

Inflow Area = 0.760 ac, 78.95% Impervious, Inflow Depth > 4.51" for 100-Year event  
 Inflow = 5.36 cfs @ 12.00 hrs, Volume= 0.286 af  
 Outflow = 5.25 cfs @ 12.01 hrs, Volume= 0.286 af, Atten= 2%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 5.03 fps, Min. Travel Time= 0.4 min  
 Avg. Velocity = 1.34 fps, Avg. Travel Time= 1.4 min

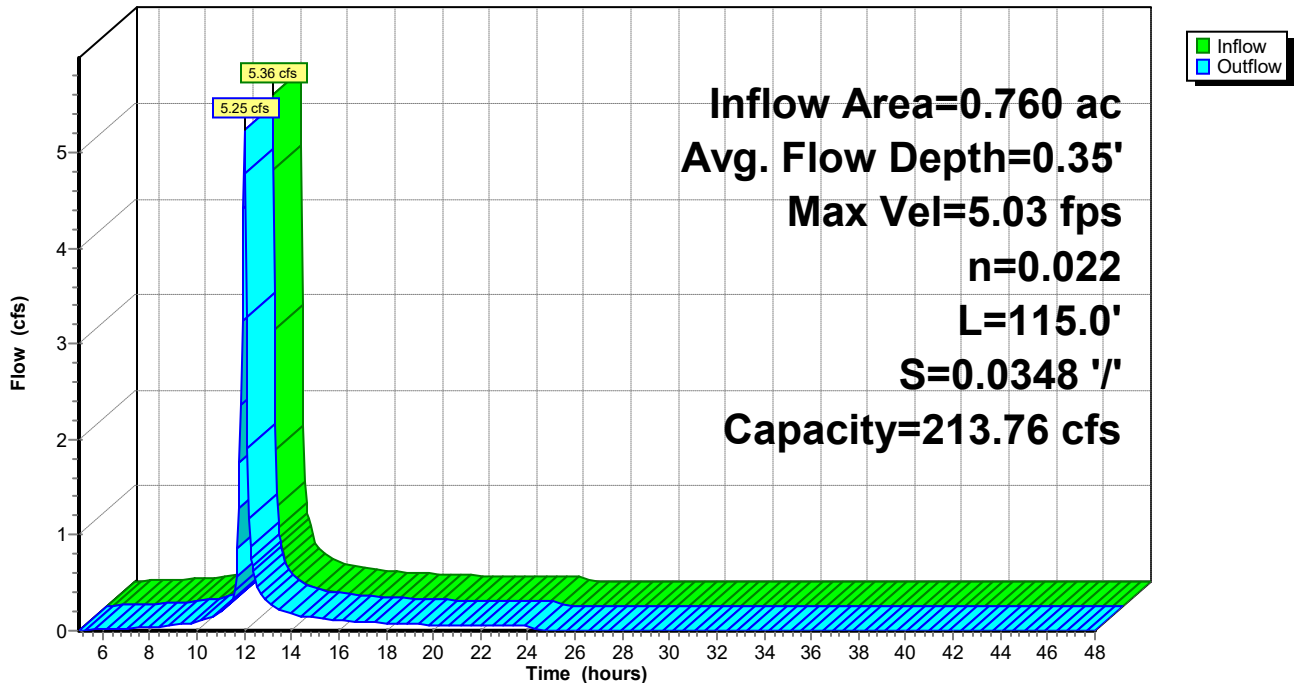
Peak Storage= 122 cf @ 12.00 hrs  
 Average Depth at Peak Storage= 0.35' , Surface Width= 4.09'  
 Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 213.76 cfs

2.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 '/' Top Width= 14.00'  
 Length= 115.0' Slope= 0.0348 '/'  
 Inlet Invert= 37.00', Outlet Invert= 33.00'



**Reach 10R: Dry Swale**

Hydrograph



**18641.00-Proposed Condition**

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**Summary for Reach 12R: Sediment Basin Overflow**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 2.00" for 100-Year event  
 Inflow = 3.95 cfs @ 12.03 hrs, Volume= 0.200 af  
 Outflow = 3.90 cfs @ 12.03 hrs, Volume= 0.200 af, Atten= 1%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 1.15 fps, Min. Travel Time= 0.1 min  
 Avg. Velocity = 0.29 fps, Avg. Travel Time= 0.3 min

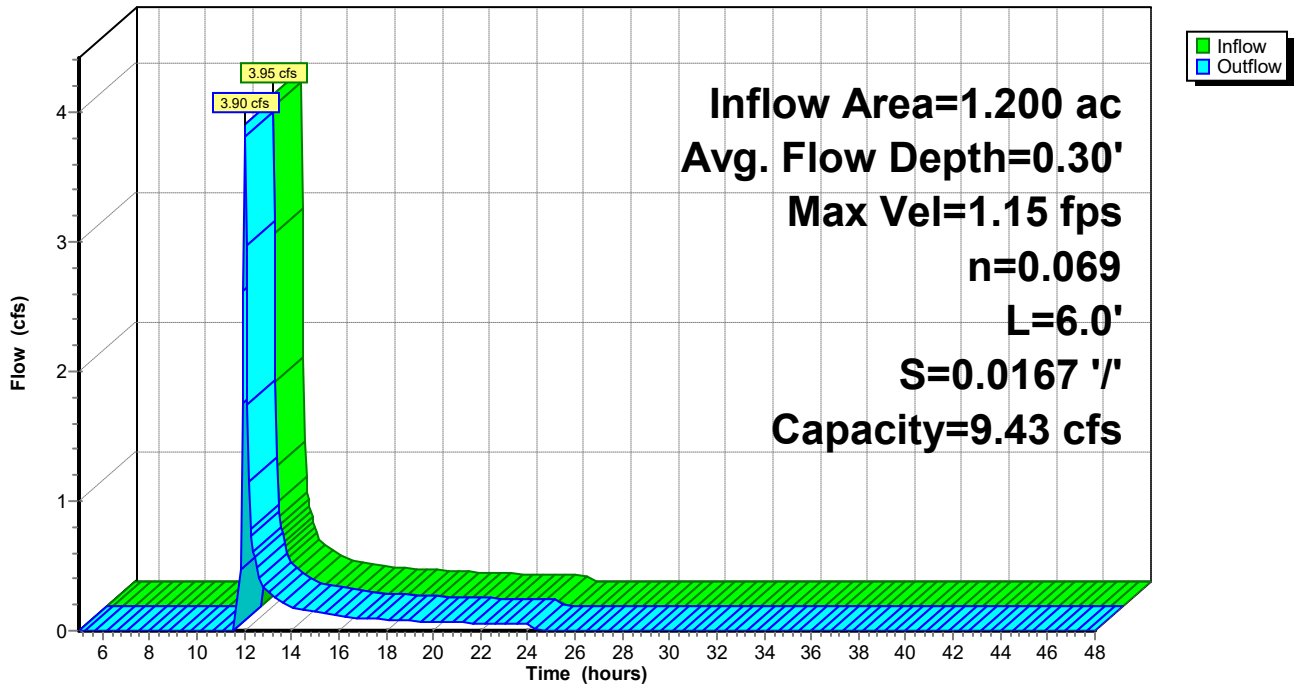
Peak Storage= 20 cf @ 12.03 hrs  
 Average Depth at Peak Storage= 0.30' , Surface Width= 12.41'  
 Bank-Full Depth= 0.50' Flow Area= 6.0 sf, Capacity= 9.43 cfs

10.00' x 0.50' deep channel, n= 0.069 Riprap, 6-inch  
 Side Slope Z-value= 4.0 ' / ' Top Width= 14.00'  
 Length= 6.0' Slope= 0.0167 ' / '  
 Inlet Invert= 12.00', Outlet Invert= 11.90'



**Reach 12R: Sediment Basin Overflow**

Hydrograph





**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Reach 13R: Roadside Swale**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 2.08" for 100-Year event  
 Inflow = 4.32 cfs @ 11.98 hrs, Volume= 0.208 af  
 Outflow = 3.95 cfs @ 12.02 hrs, Volume= 0.208 af, Atten= 9%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 3.15 fps, Min. Travel Time= 1.5 min  
 Avg. Velocity = 1.04 fps, Avg. Travel Time= 4.6 min

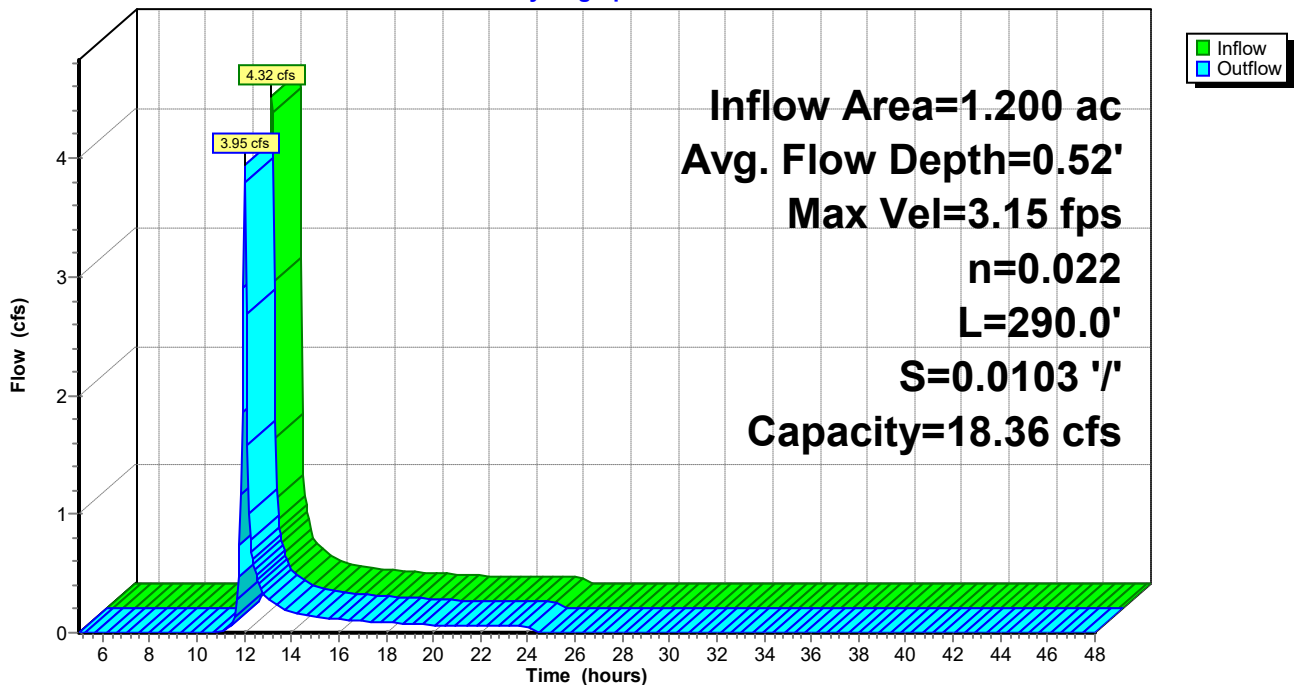
Peak Storage= 386 cf @ 12.00 hrs  
 Average Depth at Peak Storage= 0.52' , Surface Width= 4.12'  
 Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 18.36 cfs

1.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 '/' Top Width= 7.00'  
 Length= 290.0' Slope= 0.0103 '/'  
 Inlet Invert= 15.00', Outlet Invert= 12.00'



**Reach 13R: Roadside Swale**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Reach 14R: Roadside Swale**

Inflow Area = 0.760 ac, 78.95% Impervious, Inflow Depth > 4.51" for 100-Year event  
 Inflow = 5.62 cfs @ 11.97 hrs, Volume= 0.286 af  
 Outflow = 5.36 cfs @ 12.00 hrs, Volume= 0.286 af, Atten= 5%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 6.27 fps, Min. Travel Time= 1.2 min  
 Avg. Velocity = 1.65 fps, Avg. Travel Time= 4.6 min

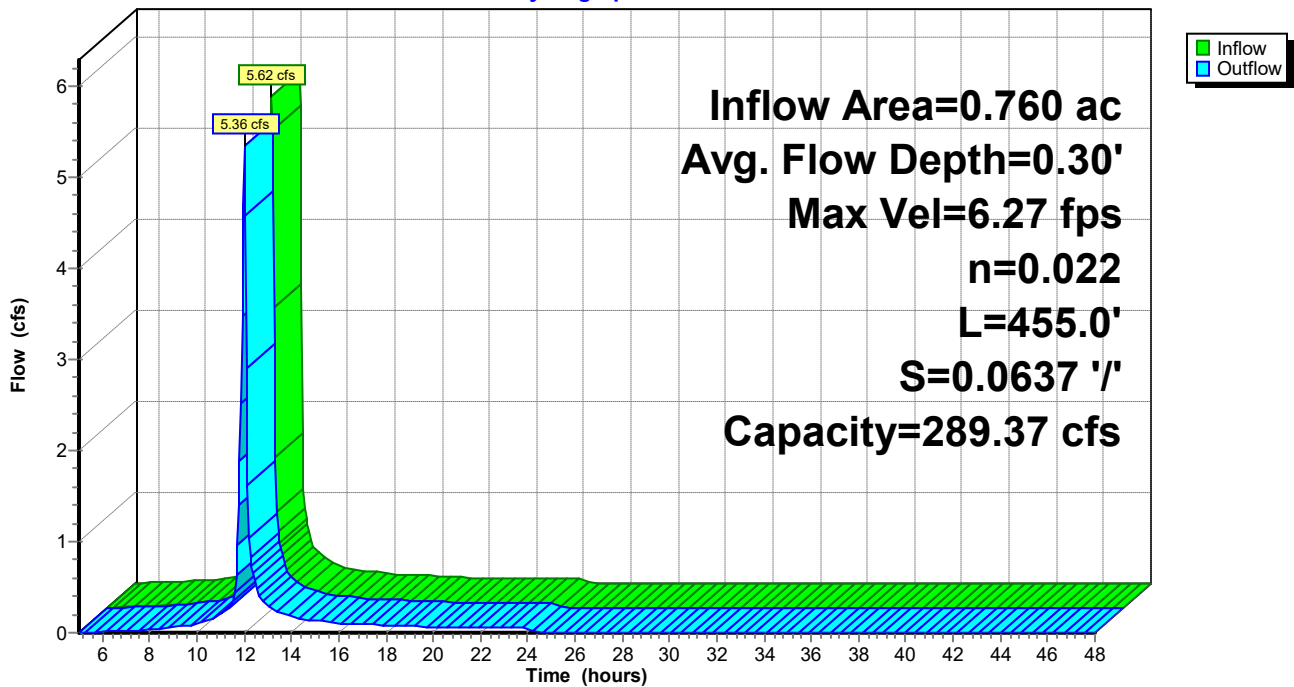
Peak Storage= 402 cf @ 11.98 hrs  
 Average Depth at Peak Storage= 0.30' , Surface Width= 3.82'  
 Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 289.37 cfs

2.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 '/' Top Width= 14.00'  
 Length= 455.0' Slope= 0.0637 '/'  
 Inlet Invert= 66.00', Outlet Invert= 37.00'



**Reach 14R: Roadside Swale**

**Hydrograph**



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Type II 24-hr 100-Year Rainfall=6.11"

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**Summary for Reach 15R: Roadside Swale**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 3.18" for 100-Year event  
 Inflow = 7.10 cfs @ 11.97 hrs, Volume= 0.345 af  
 Outflow = 5.76 cfs @ 12.12 hrs, Volume= 0.345 af, Atten= 19%, Lag= 9.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 1.22 fps, Min. Travel Time= 5.9 min  
 Avg. Velocity = 0.33 fps, Avg. Travel Time= 22.0 min

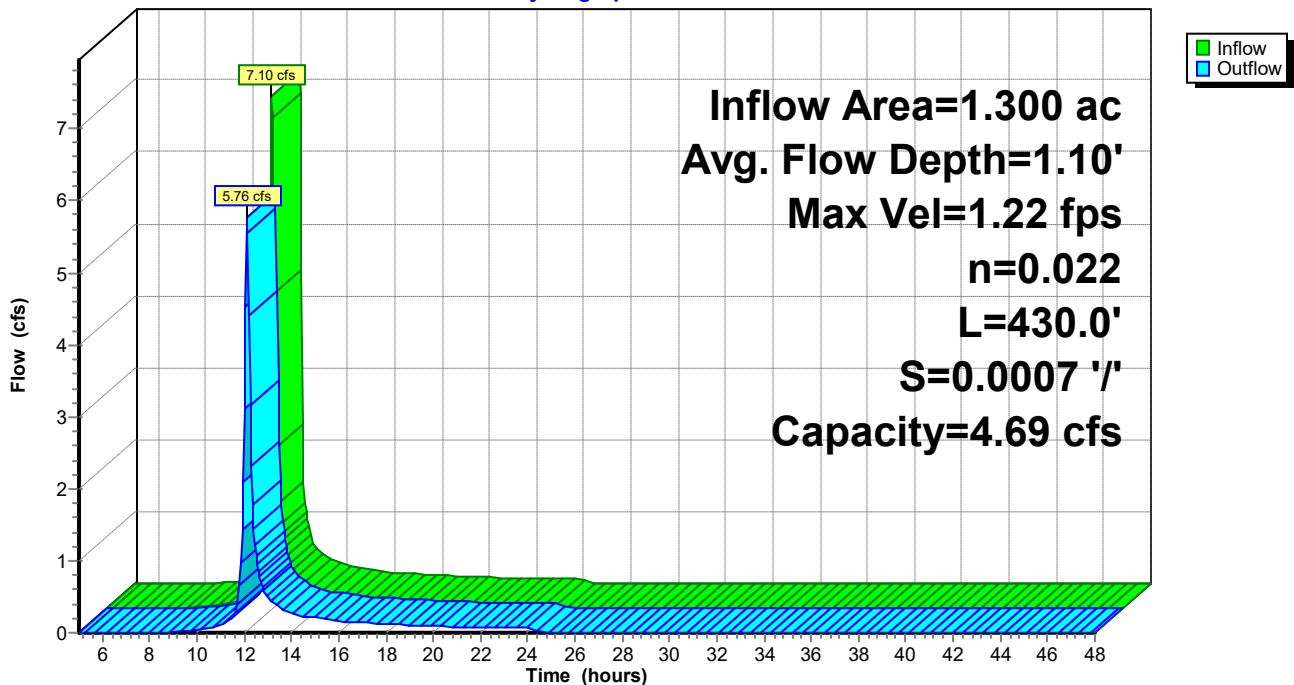
Peak Storage= 2,022 cf @ 12.02 hrs  
 Average Depth at Peak Storage= 1.10' , Surface Width= 7.60'  
 Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 4.69 cfs

1.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight  
 Side Slope Z-value= 3.0 '/' Top Width= 7.00'  
 Length= 430.0' Slope= 0.0007 '/'  
 Inlet Invert= 10.00', Outlet Invert= 9.71'



**Reach 15R: Roadside Swale**

Hydrograph



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**Summary for Reach 17R: Sediment Basin Overflow**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 3.08" for 100-Year event  
 Inflow = 5.75 cfs @ 12.12 hrs, Volume= 0.333 af  
 Outflow = 5.73 cfs @ 12.13 hrs, Volume= 0.333 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 1.17 fps, Min. Travel Time= 0.1 min  
 Avg. Velocity = 0.23 fps, Avg. Travel Time= 0.4 min

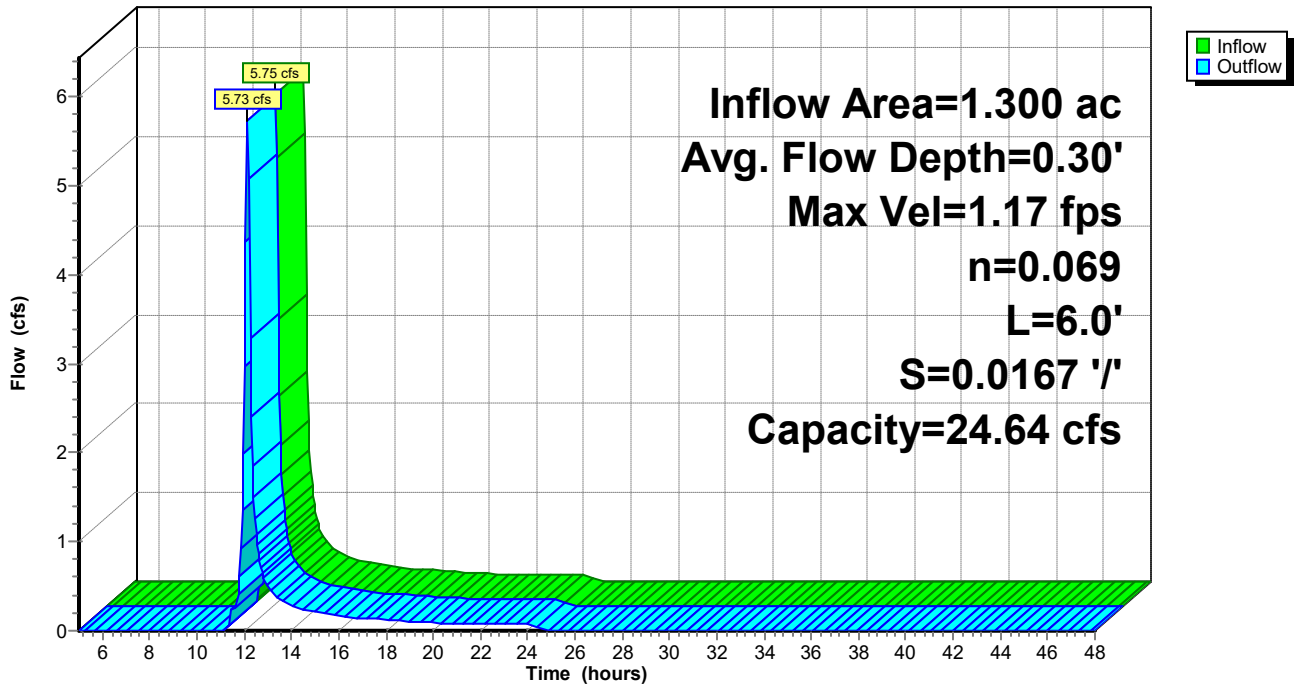
Peak Storage= 29 cf @ 12.13 hrs  
 Average Depth at Peak Storage= 0.30' , Surface Width= 17.40'  
 Bank-Full Depth= 0.70' Flow Area= 12.5 sf, Capacity= 24.64 cfs

15.00' x 0.70' deep channel, n= 0.069 Riprap, 6-inch  
 Side Slope Z-value= 4.0 '/' Top Width= 20.60'  
 Length= 6.0' Slope= 0.0167 '/'  
 Inlet Invert= 9.00', Outlet Invert= 8.90'



**Reach 17R: Sediment Basin Overflow**

Hydrograph



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**Summary for Pond 1P: WQv Pond #1**

Inflow Area = 2.900 ac, 65.52% Impervious, Inflow Depth > 5.08" for 100-Year event  
 Inflow = 16.96 cfs @ 12.03 hrs, Volume= 1.227 af  
 Outflow = 3.30 cfs @ 12.40 hrs, Volume= 1.209 af, Atten= 81%, Lag= 22.7 min  
 Primary = 3.30 cfs @ 12.40 hrs, Volume= 1.209 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Starting Elev= 14.00' Surf.Area= 9,229 sf Storage= 19,003 cf  
 Peak Elev= 16.23' @ 12.40 hrs Surf.Area= 21,421 sf Storage= 47,678 cf (28,675 cf above start)

Plug-Flow detention time= 926.9 min calculated for 0.772 af (63% of inflow)  
 Center-of-Mass det. time= 519.2 min ( 1,306.0 - 786.9 )

Volume	Invert	Avail.Storage	Storage Description
#1	10.00'	4,795 cf	<b>Forebay (Prismatic)</b> Listed below (Recalc)
#2	9.00'	57,882 cf	<b>Permanent Pool (Prismatic)</b> Listed below (Recalc)
		62,677 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	232	0	0
11.00	569	401	401
12.00	1,018	794	1,194
13.00	1,467	1,243	2,437
14.00	3,249	2,358	4,795

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
9.00	1,145	0	0
10.00	1,751	1,448	1,448
11.00	2,339	2,045	3,493
12.00	2,959	2,649	6,142
13.00	3,597	3,278	9,420
14.00	5,980	4,789	14,209
14.50	7,240	3,305	17,514
15.00	14,392	5,408	22,922
16.00	17,455	15,924	38,845
17.00	20,619	19,037	57,882

Device	Routing	Invert	Outlet Devices
#1	Primary	14.00'	<b>12.0" Round Culvert</b> L= 50.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 14.00' / 14.00' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	16.00'	<b>24.0" x 24.0" Horiz. Outlet Structure Top Grate</b> C= 0.600 in 24.0" x 24.0" Grate (100% open area) Limited to weir flow at low heads
#3	Device 1	14.00'	<b>4.0" Round Reverse Slope Pipe</b> L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 9.00' / 14.00' S= -0.1250 '/ Cc= 0.900

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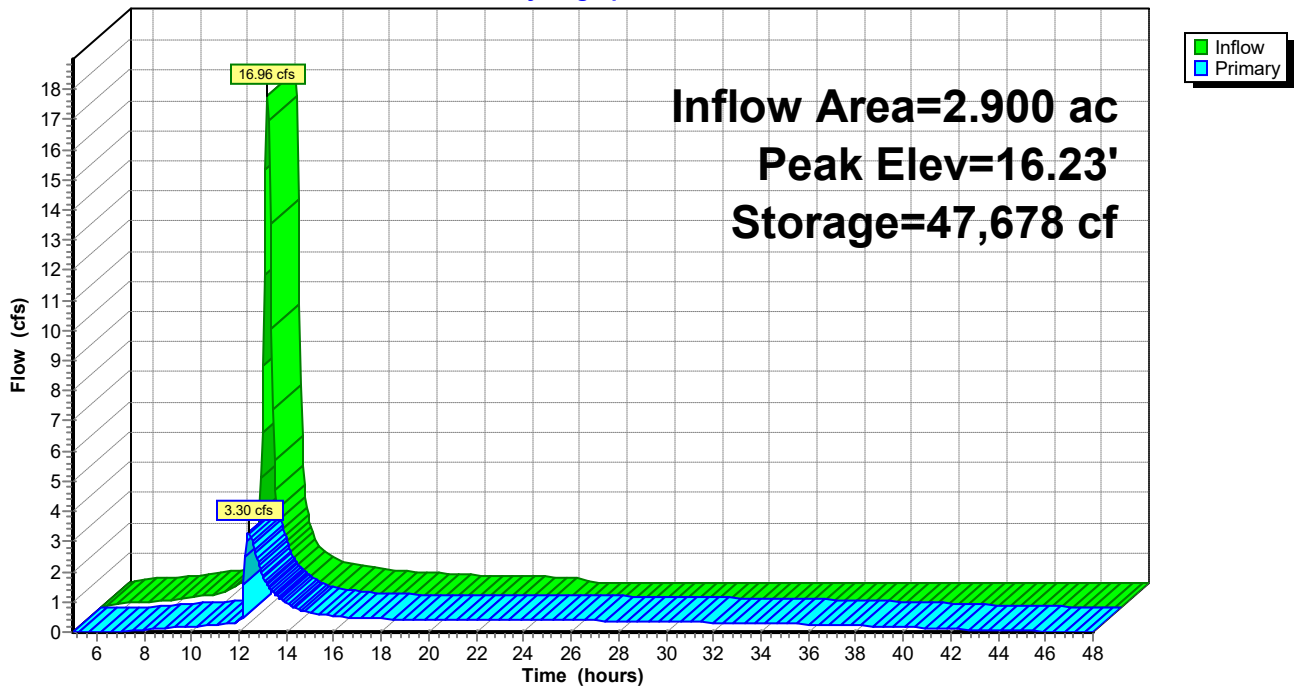
#4	Primary	16.25'	n= 0.010 PVC, smooth interior, Flow Area= 0.09 sf
			<b>6.0' long x 1.0' breadth Broad-Crested Rectangular Weir</b>
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

**Primary OutFlow** Max=3.28 cfs @ 12.40 hrs HW=16.23' (Free Discharge)

- 1=Culvert (Passes 3.28 cfs of 3.98 cfs potential flow)
- 2=Outlet Structure Top Grate (Weir Controls 2.82 cfs @ 1.56 fps)
- 3=Reverse Slope Pipe (Outlet Controls 0.46 cfs @ 5.29 fps)
- 4=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)

**Pond 1P: WQv Pond #1**

Hydrograph



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**Summary for Pond 2P: WQv Pond #2**

Inflow Area = 5.800 ac, 31.90% Impervious, Inflow Depth > 4.80" for 100-Year event  
 Inflow = 40.22 cfs @ 11.97 hrs, Volume= 2.320 af  
 Outflow = 11.88 cfs @ 12.17 hrs, Volume= 2.302 af, Atten= 70%, Lag= 12.0 min  
 Primary = 11.88 cfs @ 12.17 hrs, Volume= 2.302 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Starting Elev= 14.00' Surf.Area= 5,917 sf Storage= 9,000 cf  
 Peak Elev= 17.15' @ 12.17 hrs Surf.Area= 27,859 sf Storage= 56,363 cf (47,363 cf above start)

Plug-Flow detention time= 494.0 min calculated for 2.095 af (90% of inflow)  
 Center-of-Mass det. time= 392.1 min ( 1,178.8 - 786.7 )

Volume	Invert	Avail.Storage	Storage Description
#1	10.00'	4,020 cf	<b>Forebay #1 (Prismatic)</b> Listed below (Recalc)
#2	10.00'	2,575 cf	<b>Forebay #2 (Prismatic)</b> Listed below (Recalc)
#3	10.00'	58,093 cf	<b>Permanent Pool (Prismatic)</b> Listed below (Recalc)
		64,688 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	141	0	0
11.00	330	236	236
12.00	562	446	682
13.00	866	714	1,396
14.00	2,023	1,445	2,840
14.50	2,696	1,180	4,020

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	82	0	0
11.00	202	142	142
12.00	351	277	419
13.00	535	443	862
14.00	1,323	929	1,791
14.50	1,815	785	2,575

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.00	375	0	0
11.00	653	514	514
12.00	957	805	1,319
13.00	1,286	1,122	2,441
14.00	2,571	1,929	4,369
14.50	3,307	1,470	5,839
15.00	13,814	4,280	10,119
16.00	17,852	15,833	25,952
17.00	22,659	20,256	46,207
17.50	24,884	11,886	58,093

**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

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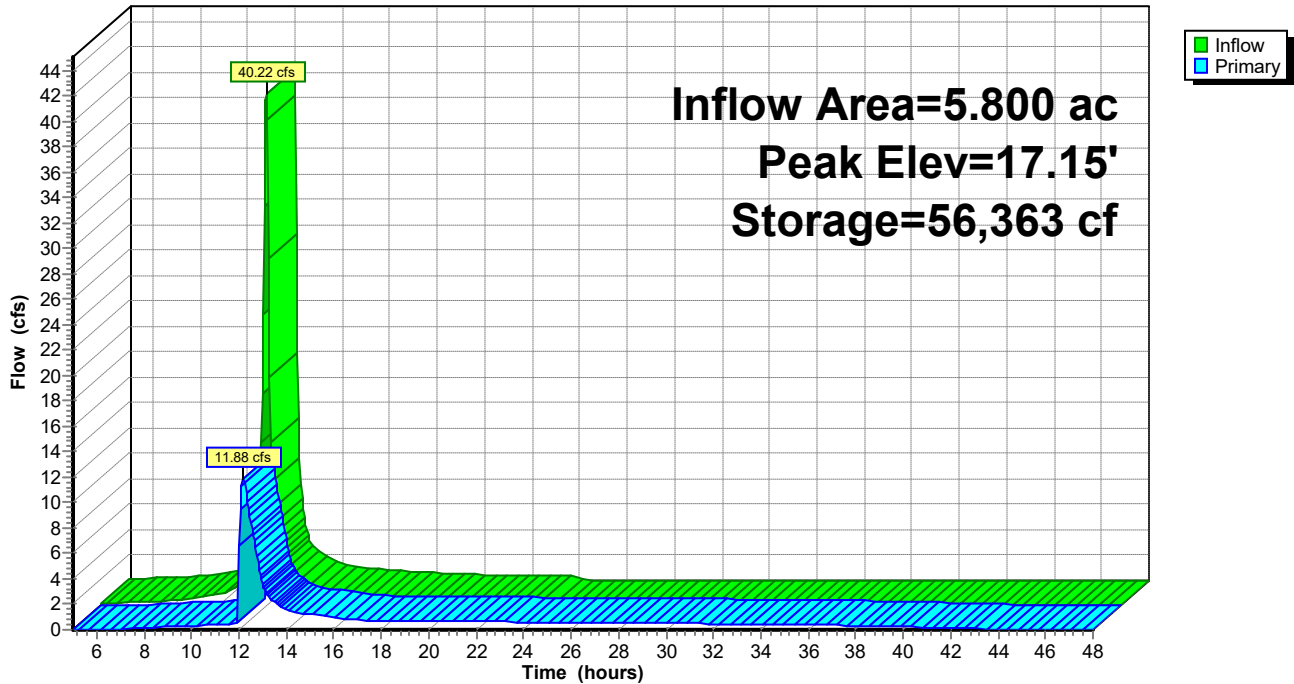
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Device	Routing	Invert	Outlet Devices
#1	Device 3	16.50'	<b>24.0" x 24.0" Horiz. Orifice/Grate</b> C= 0.600 in 24.0" x 24.0" Grate (100% open area) Limited to weir flow at low heads
#2	Device 3	14.00'	<b>4.0" Vert. Reverse Slope Pipe</b> C= 0.600 Limited to weir flow at low heads
#3	Primary	14.00'	<b>12.0" Round Outlet Structure Discard Pipe</b> L= 40.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 14.00' / 14.00' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	16.60'	<b>5.0' long x 0.5' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

**Primary OutFlow** Max=11.78 cfs @ 12.17 hrs HW=17.15' (Free Discharge)  
 ↳ **3=Outlet Structure Discard Pipe** (Barrel Controls 5.57 cfs @ 7.09 fps)  
 ↳ **1=Orifice/Grate** (Passes < 13.74 cfs potential flow)  
 ↳ **2=Reverse Slope Pipe** (Passes < 0.73 cfs potential flow)  
 ↳ **4=Broad-Crested Rectangular Weir** (Weir Controls 6.22 cfs @ 2.26 fps)

**Pond 2P: WQv Pond #2**

Hydrograph





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**Summary for Pond 3P: Infiltration Basin #1**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 2.00" for 100-Year event  
 Inflow = 3.90 cfs @ 12.03 hrs, Volume= 0.200 af  
 Outflow = 3.09 cfs @ 12.15 hrs, Volume= 0.179 af, Atten= 21%, Lag= 7.2 min  
 Discarded = 0.02 cfs @ 12.14 hrs, Volume= 0.050 af  
 Primary = 3.07 cfs @ 12.15 hrs, Volume= 0.129 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 12.12' @ 12.15 hrs Surf.Area= 1,415 sf Storage= 2,492 cf

Plug-Flow detention time= 298.1 min calculated for 0.179 af (90% of inflow)  
 Center-of-Mass det. time= 247.1 min ( 1,115.8 - 868.7 )

Volume	Invert	Avail.Storage	Storage Description			
#1	8.10'	2,492 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
8.10	109	56.0	0	0	109	
12.00	1,415	149.0	2,492	2,492	1,678	

Device	Routing	Invert	Outlet Devices
#1	Primary	11.75'	<b>Channel/Reach</b> using Reach 5R: Overflow
#2	Discarded	8.10'	<b>0.500 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 4.00'

**Discarded OutFlow** Max=0.02 cfs @ 12.14 hrs HW=12.10' (Free Discharge)  
 ↑**2=Exfiltration** ( Controls 0.02 cfs)

**Primary OutFlow** Max=2.94 cfs @ 12.15 hrs HW=12.11' (Free Discharge)  
 ↑**1=Channel/Reach** (Channel Controls 2.94 cfs @ 1.98 fps)

**18641.00-Proposed Condition**

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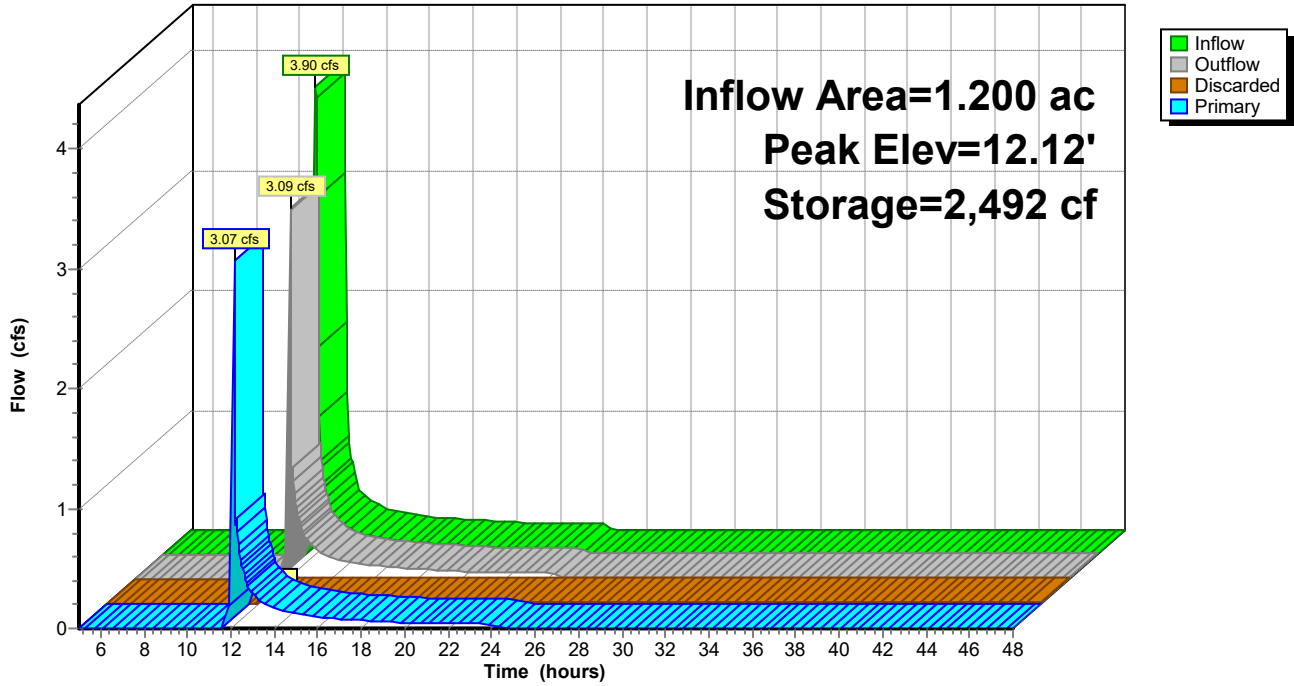
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**Pond 3P: Infiltration Basin #1**

Hydrograph



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**Summary for Pond 4P: Infiltration Basin #2**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 3.08" for 100-Year event  
 Inflow = 5.73 cfs @ 12.13 hrs, Volume= 0.333 af  
 Outflow = 5.71 cfs @ 12.14 hrs, Volume= 0.325 af, Atten= 0%, Lag= 1.0 min  
 Discarded = 0.02 cfs @ 12.14 hrs, Volume= 0.034 af  
 Primary = 5.69 cfs @ 12.14 hrs, Volume= 0.291 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 8.95' @ 12.14 hrs Surf.Area= 1,052 sf Storage= 1,579 cf

Plug-Flow detention time= 97.8 min calculated for 0.325 af (97% of inflow)  
 Center-of-Mass det. time= 84.7 min ( 936.4 - 851.7 )

Volume	Invert	Avail.Storage	Storage Description		
#1	5.80'	2,495 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
5.80	110	56.0	0	0	110
9.70	1,415	150.0	2,495	2,495	1,702

Device	Routing	Invert	Outlet Devices
#1	Primary	8.50'	<b>Channel/Reach</b> using Reach 6R: Overflow
#2	Discarded	5.80'	<b>0.500 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 3.00'

**Discarded OutFlow** Max=0.02 cfs @ 12.14 hrs HW=8.95' (Free Discharge)  
 ↑**2=Exfiltration** ( Controls 0.02 cfs)

**Primary OutFlow** Max=5.61 cfs @ 12.14 hrs HW=8.95' (Free Discharge)  
 ↑**1=Channel/Reach** (Channel Controls 5.61 cfs @ 2.86 fps)

**18641.00-Proposed Condition**

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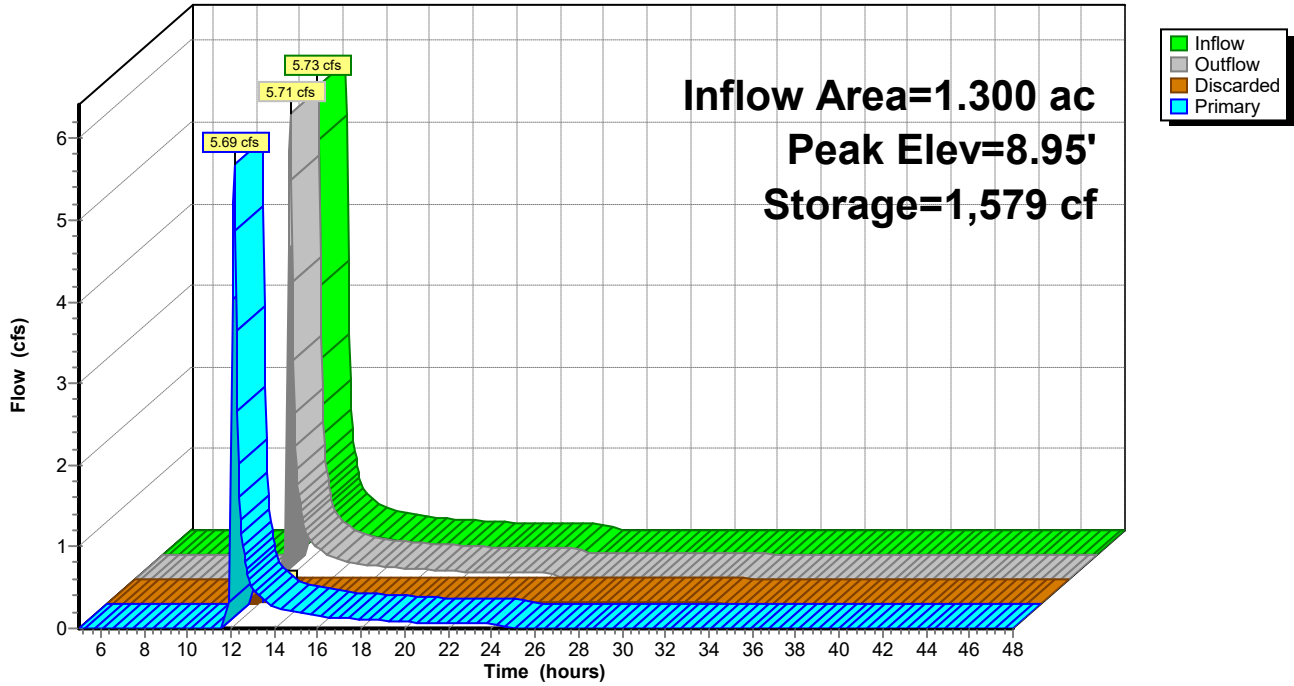
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**Pond 4P: Infiltration Basin #2**

Hydrograph



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**Summary for Pond 5P: Sedimentation Basin #1**

Inflow Area = 1.200 ac, 37.50% Impervious, Inflow Depth = 2.08" for 100-Year event  
 Inflow = 3.95 cfs @ 12.02 hrs, Volume= 0.208 af  
 Outflow = 3.95 cfs @ 12.03 hrs, Volume= 0.200 af, Atten= 0%, Lag= 0.5 min  
 Primary = 3.95 cfs @ 12.03 hrs, Volume= 0.200 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 12.30' @ 12.03 hrs Surf.Area= 491 sf Storage= 487 cf

Plug-Flow detention time= 30.5 min calculated for 0.200 af (96% of inflow)  
 Center-of-Mass det. time= 8.0 min ( 868.4 - 860.4 )

Volume	Invert	Avail.Storage	Storage Description			
#1	10.00'	594 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
10.00	55	29.0	0	0	55	
11.00	166	48.0	106	106	178	
12.00	354	69.8	254	360	390	
12.50	593	89.0	234	594	636	

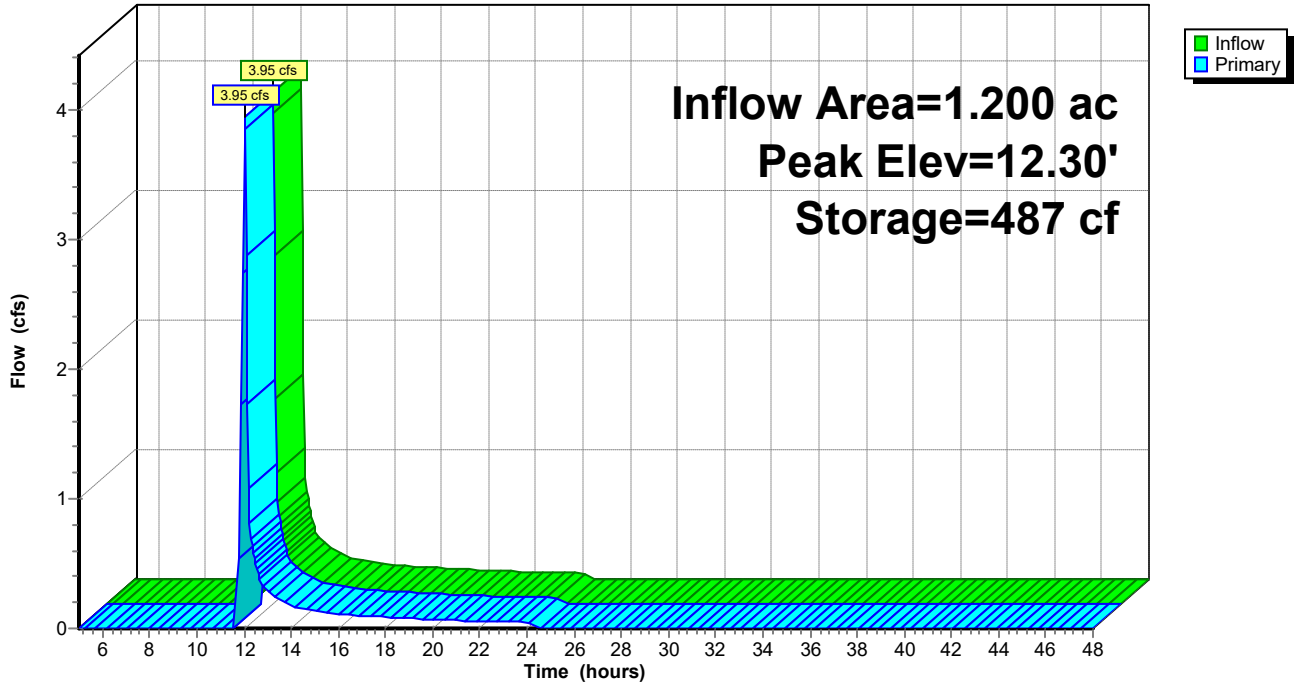
Device	Routing	Invert	Outlet Devices	
#1	Primary	12.00'	<b>Channel/Reach</b> using Reach 12R: Sediment Basin Overflow	

**Primary OutFlow** Max=3.82 cfs @ 12.03 hrs HW=12.30' (Free Discharge)

↑**1=Channel/Reach** (Channel Controls 3.82 cfs @ 1.15 fps)

Pond 5P: Sedimentation Basin #1

Hydrograph



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**Summary for Pond 16P: Sedimentation Basin #2**

Inflow Area = 1.300 ac, 57.69% Impervious, Inflow Depth = 3.18" for 100-Year event  
 Inflow = 5.76 cfs @ 12.12 hrs, Volume= 0.345 af  
 Outflow = 5.75 cfs @ 12.12 hrs, Volume= 0.333 af, Atten= 0%, Lag= 0.2 min  
 Primary = 5.75 cfs @ 12.12 hrs, Volume= 0.333 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 9.30' @ 12.12 hrs Surf.Area= 311 sf Storage= 580 cf

Plug-Flow detention time= 27.6 min calculated for 0.333 af (97% of inflow)  
 Center-of-Mass det. time= 7.5 min ( 851.4 - 843.9 )

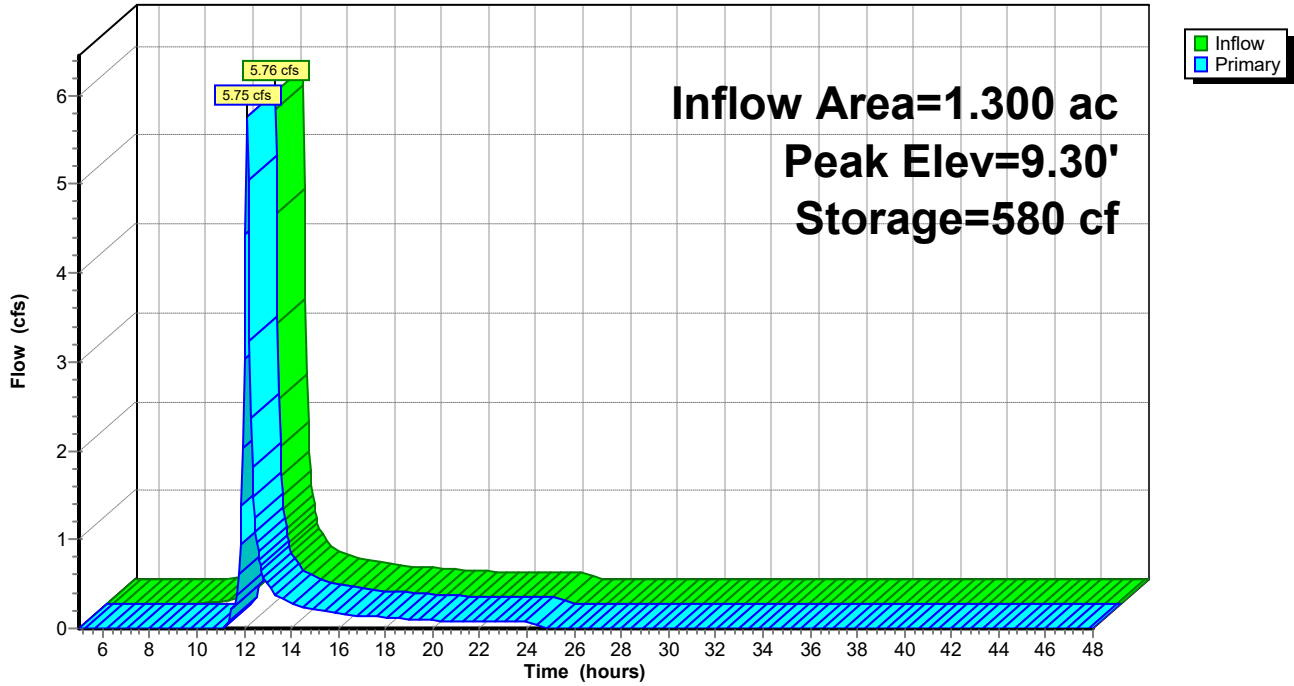
Volume	Invert	Avail.Storage	Storage Description			
#1	5.80'	713 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
5.80	55	29.3	0	0	55	
7.00	120	42.0	102	102	139	
8.00	192	53.0	155	257	235	
9.00	280	64.0	235	492	353	
9.70	355	69.9	222	713	431	

Device	Routing	Invert	Outlet Devices	
#1	Primary	9.00'	<b>Channel/Reach</b> using Reach 17R: Sediment Basin Overflow	

**Primary OutFlow** Max=5.59 cfs @ 12.12 hrs HW=9.29' (Free Discharge)  
 ↑1=Channel/Reach (Channel Controls 5.59 cfs @ 1.17 fps)

Pond 16P: Sedimentation Basin #2

Hydrograph





**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

Prepared by McFarland Johnson

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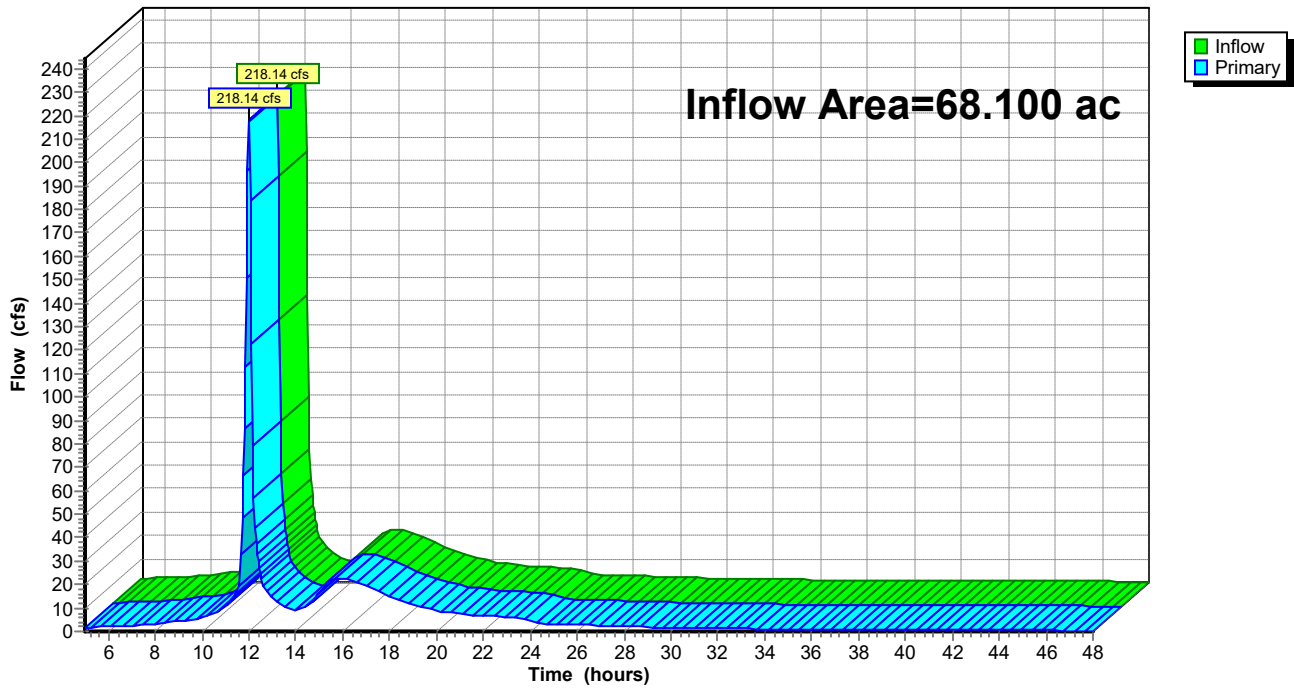
**Summary for Pond AP-1: Analysis Point #1**

Inflow Area = 68.100 ac, 20.36% Impervious, Inflow Depth > 4.09" for 100-Year event  
Inflow = 218.14 cfs @ 11.99 hrs, Volume= 23.230 af  
Primary = 218.14 cfs @ 11.99 hrs, Volume= 23.230 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs

**Pond AP-1: Analysis Point #1**

Hydrograph



**18641.00-Proposed Condition**

Prepared by McFarland Johnson

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Type II 24-hr 100-Year Rainfall=6.11"

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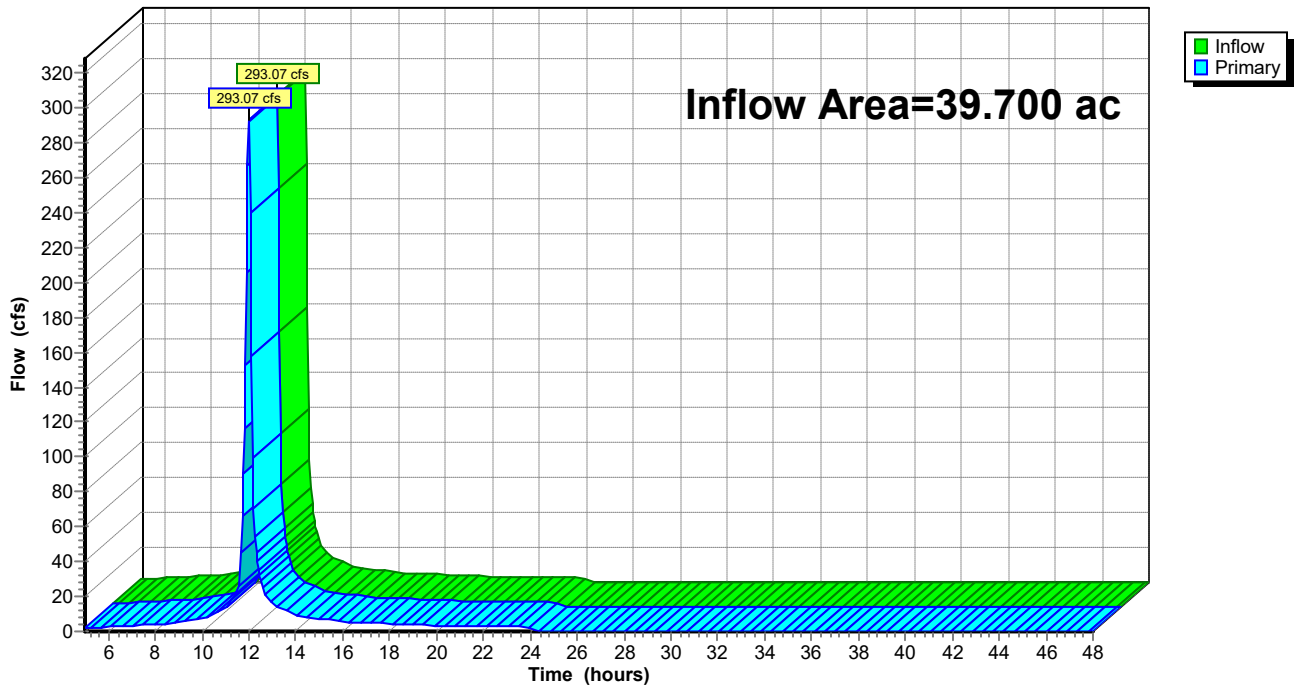
**Summary for Pond AP-2: Analysis Point #2**

Inflow Area = 39.700 ac, 23.10% Impervious, Inflow Depth > 5.28" for 100-Year event  
Inflow = 293.07 cfs @ 11.99 hrs, Volume= 17.452 af  
Primary = 293.07 cfs @ 11.99 hrs, Volume= 17.452 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs

**Pond AP-2: Analysis Point #2**

Hydrograph



**18641.00-Proposed Condition**

Type II 24-hr 100-Year Rainfall=6.11"

Prepared by McFarland Johnson

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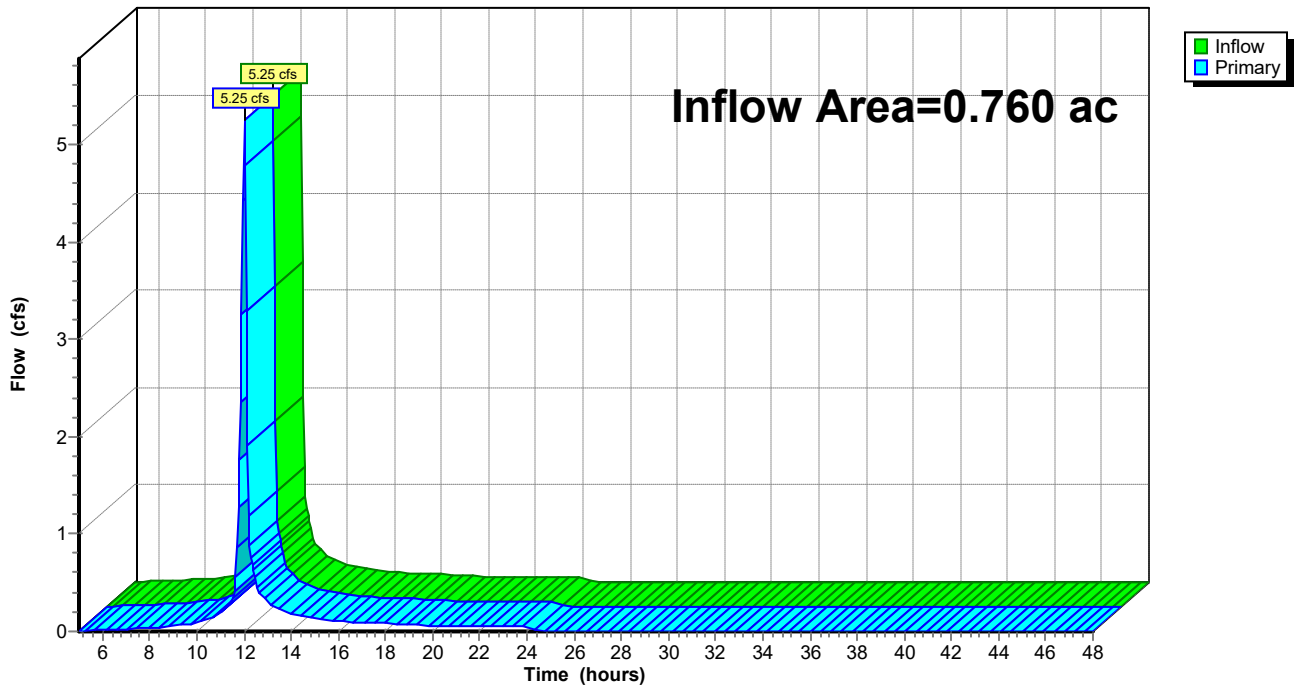
**Summary for Pond AP-3: Analysis Point #3**

Inflow Area = 0.760 ac, 78.95% Impervious, Inflow Depth > 4.51" for 100-Year event  
Inflow = 5.25 cfs @ 12.01 hrs, Volume= 0.286 af  
Primary = 5.25 cfs @ 12.01 hrs, Volume= 0.286 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs

**Pond AP-3: Analysis Point #3**

Hydrograph



## **Appendix C**

# **Water Quality and Runoff Reduction Volume Calculations**

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?..... **No**

Design Point: \_\_\_\_\_  
 P= 1.20 inch *Manually enter P, Total Area and Impervious Cover.*

Breakdown of Subcatchments						
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft <sup>3</sup> )	Description
1	10.30	10.20	99%	0.94	42,055	
2	5.50	5.30	96%	0.92	21,884	
3	11.00	10.60	96%	0.92	43,769	
4	8.90	8.60	97%	0.92	35,505	
5	5.20	4.90	94%	0.90	20,258	
6	11.80	11.60	98%	0.93	47,846	
7	8.70	8.40	97%	0.92	34,681	
8	2.90	2.00	69%	0.67	8,437	
9	5.80	3.10	53%	0.53	13,361	
10	0.00	0.00				Infiltration Basin
Subtotal (1-30)	72.70	65.89	91%	0.87	<b>273,007</b>	<b>Subtotal 1</b>
<b>Total</b>	<b>72.70</b>	<b>65.89</b>	<b>91%</b>	<b>0.87</b>	<b>273,007</b>	<b>Initial WQv</b>

Identify Runoff Reduction Techniques By Area			
Technique	Total Contributing Area	Contributing Impervious Area	Notes
	(Acre)	(Acre)	
Conservation of Natural Areas	0.00	0.00	<i>minimum 10,000 sf</i>
Riparian Buffers	0.00	0.00	<i>maximum contributing length 75 feet to 150 feet</i>
Filter Strips	0.00	0.00	
Tree Planting	0.00	0.00	<i>Up to 100 sf directly connected impervious area may be subtracted per tree</i>
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	

Recalculate WQv after application of Area Reduction Techniques					
	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Runoff Coefficient Rv	WQv (ft <sup>3</sup> )
"<<Initial WQv"	72.70	65.89	91%	0.87	273,007
Subtract Area	0.00	0.00			
WQv adjusted after Area Reductions	<b>72.70</b>	<b>65.89</b>	91%	0.87	273,007
Disconnection of Rooftops		0.00			
Adjusted WQv after Area Reduction and Rooftop Disconnect	72.70	65.89	91%	0.87	<b>273,007</b>
WQv reduced by Area Reduction techniques					0

Total Water Quality Volume Calculation

$$WQv(\text{acre-feet}) = [(P)(Rv)(A)] / 12$$

Additional Subcatchments						
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft <sup>3</sup> )	Description
11	0.00	0.00				
12	0.00	0.00				
13	1.10	0.45	41%	0.42	1,995	Infiltration Basin
14	1.10	0.55	50%	0.50	2,386	Infiltration Basin
15	0.10	0.05	50%	0.50	217	Dry Swale
16	0.00	0.00				
17	0.30	0.14	47%	0.47	612	Dry Swale
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Subtotal	2.60	1.19			5,210	Subtotal

Total Water Quality Volume Calculation

$$WQv(\text{acre-feet}) = [(P)(Rv)(A)] / 12$$

All Subcatchments						
Catchment	Total Area (Acres)	Impervious Cover (Acres)	Percent Impervious %	Runoff Coefficient Rv	WQv (ft <sup>3</sup> )	Description
1	10.30	10.20	0.99	0.94	42055.46	
2	5.50	5.30	0.96	0.92	21,884	
3	11.00	10.60	0.96	0.92	43768.91	
4	8.90	8.60	0.97	0.92	35505.30	
5	5.20	4.90	0.94	0.90	20257.76	
6	11.80	11.60	0.98	0.93	47846.49	
7	8.70	8.40	0.97	0.92	34681.11	
8	2.90	2.00	0.69	0.67	8437.12	
9	5.80	3.10	0.53	0.53	13360.58	
10	0.00	0.00				Infiltration
11	0.00	0.00				
12	0.00	0.00				
13	1.10	0.45	0.41	0.42	1995.41	Infiltration Basin
14	1.10	0.55	0.50	0.50	2385.82	Infiltration Basin
15	0.10	0.05	0.50	0.50	216.89	Dry Swale
16	0.00	0.00				
17	0.30	0.14	0.47	0.47	611.64	Dry Swale
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

Runoff Reduction Volume and Treated volumes							
	Runoff Reduction Techiques/Standard SMPs		Total Contributing Area	Total Contributing Impervious Area	WQv Reduced (RRv)	WQv Treated	
			(acres)	(acres)	cf	cf	
Area/Volume Reduction	Conservation of Natural Areas	RR-1	0.00	0.00			
	Sheetflow to Riparian Buffers/Filter Strips	RR-2	0.00	0.00			
	Tree Planting/Tree Pit	RR-3	0.00	0.00			
	Disconnection of Rooftop Runoff	RR-4		0.00			
	Vegetated Swale	RR-5	0.00	0.00	0		
	Rain Garden	RR-6	0.00	0.00	0		
	Stormwater Planter	RR-7	0.00	0.00	0		
	Rain Barrel/Cistern	RR-8	0.00	0.00	0		
	Porous Pavement	RR-9	0.00	0.00	0		
	Green Roof (Intensive & Extensive)	RR-10	0.00	0.00	0		
Standard SMPs w/RRv Capacity	Infiltration Trench	I-1	0.00	0.00	0	0	
	Infiltration Basin	I-2	2.20	1.00	4241		
	Dry Well	I-3	0.00	0.00	0	0	
	Underground Infiltration System	I-4					
	Bioretention & Infiltration Bioretention	F-5	0.00	0.00	0	0	
	Dry swale	O-1	0.40	0.19	215	614	
Standard SMPs	Micropool Extended Detention (P-1)	P-1				21798.000	
	Wet Pond (P-2)	P-2					
	Wet Extended Detention (P-3)	P-3					
	Multiple Pond system (P-4)	P-4					
	Pocket Pond (p-5)	P-5					
	Surface Sand filter (F-1)	F-1					
	Underground Sand filter (F-2)	F-2					
	Perimeter Sand Filter (F-3)	F-3					
	Organic Filter (F-4)	F-4					186552.000
	Shallow Wetland (W-1)	W-1					
	Extended Detention Wetland (W-2)	W-2					
	Pond/Wetland System (W-3)	W-3					
	Pocket Wetland (W-4)	W-4					
Wet Swale (O-2)	O-2						
Totals by Area Reduction →			0.00	0.00	0		
Totals by Volume Reduction →			0.00	0.00	0		
Totals by Standard SMP w/RRV →			2.60	1.19	4455	614	
Totals by Standard SMP →			0.00	0.00		208350	
Totals ( Area + Volume + all SMPs) →			2.60	1.19	4,455	208,964	
Impervious Cover v		error					



# Minimum RRv

**Enter the Soils Data for the site**

Soil Group	Acres	S
A	2.30	55%
B		40%
C		30%
D	<b>70.40</b>	20%
Total Area	72.7	

**Calculate the Minimum RRv**

S =	<b>0.21</b>	
Impervious =	65.89	<i>acre</i>
Precipitation	1.195	<i>in</i>
Rv	0.95	
<b>Minimum RRv</b>	<b>57,313</b>	<b><i>ft3</i></b>
	1.32	<i>af</i>

# Planning

Practice	Description	Application
<b>Preservation of Undisturbed Areas</b>	Delineate and place into permanent conservation undisturbed forests, native vegetated areas, riparian corridors, wetlands, and natural terrain.	Considered & Not Applied
<b>Preservation of Buffers</b>	Define, delineate and preserve naturally vegetated buffers along perennial streams, rivers, shorelines and wetlands.	Considered & Not Applied
<b>Reduction of Clearing and Grading</b>	Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities.	Considered & Applied
<b>Locating Development in Less Sensitive Areas</b>	Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact.	Considered & Applied
<b>Open Space Design</b>	Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources.	N/A
<b>Soil Restoration</b>	Restore the original properties and porosity of the soil by deep till and amendment with compost to reduce the generation of runoff and enhance the runoff reduction performance of post construction practices.	N/A
<b>Roadway Reduction</b>	Minimize roadway widths and lengths to reduce site impervious area	Considered & Applied
<b>Sidewalk Reduction</b>	Minimize sidewalk lengths and widths to reduce site impervious area	Considered & Applied
<b>Driveway Reduction</b>	Minimize driveway lengths and widths to reduce site impervious area	N/A
<b>Cul-de-sac Reduction</b>	Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover.	N/A
<b>Building Footprint Reduction</b>	Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio.	Considered & Applied
<b>Parking Reduction</b>	Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, minimizing stall dimensions, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate.	Considered & Applied

# NOI QUESTIONS

#	NOI Question	Reported Value	
		cf	af
28	Total Water Quality Volume (WQv) Required	273007	6.267
30	Total RRV Provided	4455	0.102
31	Is RRV Provided $\geq$ WQv Required?	No	
32	Minimum RRV	57313	1.316
32a	Is RRV Provided $\geq$ Minimum RRV Required?	No	
Contact Regional Office			
33a	Total WQv Treated	208964	4.797
34	Sum of Volume Reduced & Treated	213419	4.899
34	Sum of Volume Reduced and Treated	213419	4.899
35	Is Sum RRV Provided and WQv Provided $\geq$ WQv Required?	No	

Contact Regional Office

Apply Peak Flow Attenuation			
36	Channel Protection	<i>Cpv</i>	
37	Overbank	<i>Qp</i>	
37	Extreme Flood Control	<i>Qf</i>	
	Are Quantity Control requirements met?	Yes	Plan Completed

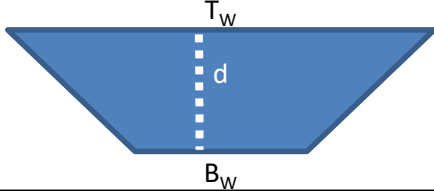
# Infiltration Basin Worksheet

<b>Design Point:</b>							
Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft <sup>3</sup> )	Precipitation (in)	Description
13	1.10	0.45	0.41	0.42	1995.41	1.20	Infiltration Basin
Enter Impervious Area Reduced by Disconnection of Practice		0.00	41%	0.42	1,995	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.					0	ft <sup>3</sup>	
Pretreatment Techniques to Prevent Clogging							
Infiltration Rate			0.50	in/hour	<b>Okay</b>		
Pretreatment Sizing			25	% WQv	25% minimum; 50% if >2 in/hr 100% if >5in/hour		
Pretreatment Required Volume			499	ft <sup>3</sup>			
Pretreatment Provided			594	ft <sup>3</sup>			
Pretreatment Techniques utilized			Sedimentation Basin				
Size An Infiltration Basin							
Design Volume	1,995	ft <sup>3</sup>	WQv				
Basal Area Required	499	ft <sup>2</sup>	Infiltration practices shall be designed to exfiltrate the entire WQv through the floor of each practice.				
Basal Area Provided	1,130	ft <sup>2</sup>					
Design Depth	4.00	ft					
Volume Provided	4,520	ft <sup>3</sup>	Storage Volume provided in infiltration basin area (not including pretreatment).				
Determine Runoff Reduction							
<b>RRv</b>	<b>1,995</b>	<b>ft<sup>3</sup></b>	<b>90% of the storage provided in the basin or WQv whichever is smaller</b>				
Volume Treated	0	ft <sup>3</sup>	This is the portion of the WQv that is not reduced/infiltrated				
Sizing v	OK		The infiltration basin must provide storage equal to or greater than the WQv of the contributing area.				

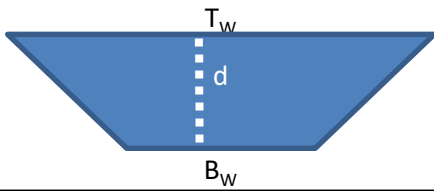
# Infiltration Basin Worksheet

<b>Design Point:</b>							
<b>Enter Site Data For Drainage Area to be Treated by Practice</b>							
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft <sup>3</sup> )	Precipitation (in)	Description
14	1.10	0.55	0.50	0.50	2385.82	1.20	Infiltration Basin
Enter Impervious Area Reduced by Disconnection of Practices		0.00	50%	0.50	2,386	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.					0	ft <sup>3</sup>	
<b>Pretreatment Techniques to Prevent Clogging</b>							
Infiltration Rate			0.50	in/hour	Okay		
Pretreatment Sizing			25	% WQv	25% minimum; 50% if >2 in/hr 100% if >5in/hour		
Pretreatment Required Volume			596	ft <sup>3</sup>			
Pretreatment Provided			713	ft <sup>3</sup>			
Pretreatment Techniques utilized			Sedimentation Basin				
<b>Size An Infiltration Basin</b>							
Design Volume	2,386	ft <sup>3</sup>	WQv				
Basal Area Required	612	ft <sup>2</sup>	Infiltration practices shall be designed to exfiltrate the entire WQv through the floor of each practice.				
Basal Area Provided	640	ft <sup>2</sup>					
Design Depth	3.90	ft					
Volume Provided	2,495	ft <sup>3</sup>	Storage Volume provided in infiltration basin area (not including pretreatment).				
<b>Determine Runoff Reduction</b>							
<b>RRv</b>	<b>2,245</b>	<b>ft<sup>3</sup></b>	<b>90% of the storage provided in the basin or WQv whichever is smaller</b>				
Volume Treated	140	ft <sup>3</sup>	This is the portion of the WQv that is not reduced/infiltrated				
Sizing v	OK		The infiltration basin must provide storage equal to or greater than the WQv of the contributing area.				

# Dry Swale Worksheet

<b>Design Point:</b>							
<b>Enter Site Data For Drainage Area to be Treated by Practice</b>							
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft <sup>3</sup> )	Precipitation (in)	Description
15	0.10	0.05	0.50	0.50	216.89	1.20	Dry Swale
Enter Impervious Area Reduced by Disconnection of Rooftops		0.00	50%	0.50	217	<<WQv after adjusting for Disconnected Rooftops	
<b>Pretreatment Provided</b>				<b>Pretreatment Technique</b>			
Pretreatment (10% of WQv)			22	ft <sup>3</sup>			
<b>Calculate Available Storage Capacity</b>							
Bottom Width	1	ft	Design with a bottom width no greater than eight feet to avoid potential gullyng and channel braiding, but no less than two feet				
Side Slope (X:1)	2	Okay	Channels shall be designed with moderate side slopes (flatter than 3:1) for most conditions. 2:1 is the absolute maximum side slope				
Longitudinal Slope	0%	Okay	Maximum longitudinal slope shall be 4%				
Flow Depth	0.75	ft	Maximum ponding depth of one foot at the mid-point of the channel, and a maximum depth of 18" at the end point of the channel (for storage of the WQv)				
Top Width	4	ft					
Area	1.88	sf					
Minimum Length	104	ft					
Actual Length	105	ft					
End Point Depth check	1.00	Okay	A maximum depth of 18" at the end point of the channel (for storage of the WQv)				
Storage Capacity	219	ft <sup>3</sup>					
Soil Group (HSG)			A				
<b>Runoff Reduction</b>							
Is the Dry Swale contributing flow to another practice?			No	Select Practice			
<b>RRv</b>	<b>87</b>	ft <sup>3</sup>	<b>Runoff Reduction equals 40% in HSG A and B and 20% in HSG C and D up to the WQv</b>				
Volume Treated	129	ft <sup>3</sup>	This is the difference between the WQv calculated and the runoff reduction achieved in the swale				
Volume Directed	0	ft <sup>3</sup>	This volume is directed another practice				
Volume V	Okay		Check to be sure that channel is long enough to store WQv				

# Dry Swale Worksheet

<b>Design Point:</b>							
<b>Enter Site Data For Drainage Area to be Treated by Practice</b>							
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft <sup>3</sup> )	Precipitation (in)	Description
17	0.30	0.14	0.47	0.47	611.64	1.20	Dry Swale
Enter Impervious Area Reduced by Disconnection of Rooftops		0.00	47%	0.47	612	<<WQv after adjusting for Disconnected Rooftops	
<b>Pretreatment Provided</b>				<b>Pretreatment Technique</b>			
Pretreatment (10% of WQv)			61	ft <sup>3</sup>			
<b>Calculate Available Storage Capacity</b>							
Bottom Width	2	ft	Design with a bottom width no greater than eight feet to avoid potential gullyng and channel braiding, but no less than two feet				
Side Slope (X:1)	3	Okay	Channels shall be designed with moderate side slopes (flatter than 3:1) for most conditions. 2:1 is the absolute maximum side slope				
Longitudinal Slope	3%	Okay	Maximum longitudinal slope shall be 4%				
Flow Depth	1	ft	Maximum ponding depth of one foot at the mid-point of the channel, and a maximum depth of 18" at the end point of the channel (for storage of the WQv)				
Top Width	8	ft					
Area	5.00	sf					
Minimum Length	110	ft					
Actual Length	115	ft					
End Point Depth check	1.50	Okay	A maximum depth of 18" at the end point of the channel (for storage of the WQv)				
Storage Capacity	636	ft <sup>3</sup>					
Soil Group (HSG)				D			
<b>Runoff Reduction</b>							
Is the Dry Swale contributing flow to another practice?				No	Select Practice		
<b>RRv</b>	<b>127</b>	<b>ft<sup>3</sup></b>	<b>Runoff Reduction equals 40% in HSG A and B and 20% in HSG C and D up to the WQv</b>				
Volume Treated	484	ft <sup>3</sup>	This is the difference between the WQv calculated and the runoff reduction achieved in the swale				
Volume Directed	0	ft <sup>3</sup>	This volume is directed another practice				
Volume V	Okay	Check to be sure that channel is long enough to store WQv					

**Date:** 1/18/2022  
**Project:** Port of Albany  
**Location:** Albany, NY  
**Prepared For:** Natalie Olivieri

**Purpose:** To calculate the water quality flow rate (Qwq) over a given site area. In this situation the WQv to be analyzed is the runoff produced by the first 1.2 inch(es) of rainfall, per Fig 4.1 of the New York State Stormwater Management Design Manual

**Reference:** United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual, New York State Stormwater Management Design Manual - 2015

**Formulas:** 
$$WQv = \frac{(P)(R_v)(A)}{12}$$

$$R_v = (0.05+0.009(I))$$

$$CN = 1000/[10+5P+10Qa-10(Qa^2+1.25QaP)^{1/2}]$$

$$Qwq = (q_u)*(A)*(Qa)$$

Structure:	WQU 1	Structure:	WQU 2	Structure:	WQU 3
P	1.20 in.	P	1.20 in.	P	1.20 in.
A	10.300 ac	A	5.500 ac	A	11.000 ac
I	99.03 %	I	96.36 %	I	96.36 %
t <sub>c</sub>	10.0 min.	t <sub>c</sub>	10.0 min.	t <sub>c</sub>	10.4 min.
t <sub>c</sub>	0.167 hr.	t <sub>c</sub>	0.167 hr.	t <sub>c</sub>	0.173 hr.
R <sub>v</sub>	0.941	R <sub>v</sub>	0.917	R <sub>v</sub>	0.917
90% WQv	0.969 ac-ft	90% WQv	0.504 ac-ft	90% WQv	1.009 ac-ft
90% WQv	42218.35 ft <sup>3</sup>	90% WQv	21971.66 ft <sup>3</sup>	90% WQv	43938.97 ft <sup>3</sup>
Qa	1.129 in.	Qa	1.101 in.	Qa	1.100 in.
CN	97.00	CN	94.00	CN	95.00
I <sub>a</sub>	0.062	I <sub>a</sub>	0.128	I <sub>a</sub>	0.105
I <sub>a</sub> /P	0.052	I <sub>a</sub> /P	0.107	I <sub>a</sub> /P	0.088
q <sub>u</sub>	1000 (csm/in)	q <sub>u</sub>	1000 (csm/in)	q <sub>u</sub>	1000 (csm/in)
A	0.01609 miles <sup>2</sup>	A	0.00859 miles <sup>2</sup>	A	0.01719 miles <sup>2</sup>
Qwq	18.17 cfs	Qwq	9.46 cfs	Qwq	18.91 cfs



**Date:** 1/18/2022  
**Project:** Port of Albany  
**Location:** Albany, NY  
**Prepared For:** Natalie Olivieri

**Purpose:** To calculate the water quality flow rate (Qwq) over a given site area. In this situation the WQv to be analyzed is the runoff produced by the first 1.2 inch(es) of rainfall, per Fig 4.1 of the New York State Stormwater Management Design Manual

**Reference:** United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual, New York State Stormwater Management Design Manual - 2015

**Formulas:** 
$$WQv = \frac{(P)(R_v)(A)}{12}$$

$$R_v = (0.05+0.009(I))$$

$$CN = 1000/[10+5P+10Qa-10(Qa^2+1.25QaP)^{1/2}]$$

$$Qwq = (q_u)*(A)*(Qa)$$

Structure:	WQU 4	Structure:	WQU 5	Structure:	WQU 6
P	1.20 in.	P	1.20 in.	P	1.20 in.
A	8.900 ac	A	5.200 ac	A	11.800 ac
I	96.63 %	I	94.23 %	I	98.31 %
t <sub>c</sub>	10.0 min.	t <sub>c</sub>	10.0 min.	t <sub>c</sub>	10.0 min.
t <sub>c</sub>	0.167 hr.	t <sub>c</sub>	0.167 hr.	t <sub>c</sub>	0.167 hr.
R <sub>v</sub>	0.92	R <sub>v</sub>	0.898	R <sub>v</sub>	0.935
90% WQv	0.819 ac-ft	90% WQv	0.467 ac-ft	90% WQv	1.103 ac-ft
90% WQv	35666.93 ft <sup>3</sup>	90% WQv	20342.52 ft <sup>3</sup>	90% WQv	48059.75 ft <sup>3</sup>
Qa	1.104 in.	Qa	1.078 in.	Qa	1.122 in.
CN	94.00	CN	94.00	CN	96.00
I <sub>a</sub>	0.128	I <sub>a</sub>	0.128	I <sub>a</sub>	0.083
I <sub>a</sub> /P	0.107	I <sub>a</sub> /P	0.107	I <sub>a</sub> /P	0.069
q <sub>u</sub>	1000 (csm/in)	q <sub>u</sub>	1000 (csm/in)	q <sub>u</sub>	1000 (csm/in)
A	0.01391 miles <sup>2</sup>	A	0.00813 miles <sup>2</sup>	A	0.01844 miles <sup>2</sup>
Qwq	15.35 cfs	Qwq	8.76 cfs	Qwq	20.69 cfs

**Date:** 1/18/2022  
**Project:** Port of Albany  
**Location:** Albany, NY  
**Prepared For:** Natalie Olivieri

**Purpose:** To calculate the water quality flow rate (Qwq) over a given site area. In this situation the WQv to be analyzed is the runoff produced by the first 1.2 inch(es) of rainfall, per Fig 4.1 of the New York State Stormwater Management Design Manual

**Reference:** United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual, New York State Stormwater Management Design Manual - 2015

**Formulas:** 
$$WQv = \frac{(P)(R_v)(A)}{12}$$

$$R_v = (0.05+0.009(I))$$

$$CN = 1000/[10+5P+10Qa-10(Qa^2+1.25QaP)^{1/2}]$$

$$Qwq = (q_u)*(A)*(Qa)$$

**Structure:** WQU 7

P	1.20	in.
A	8.700	ac
I	96.55	%
t <sub>c</sub>	10.5	min.
t <sub>c</sub>	0.175	hr.
R <sub>v</sub>	0.919	
90% WQv	0.800	ac-ft
90% WQv	34826.22	ft <sup>3</sup>
Qa	1.103	in.
CN	96.00	
I <sub>a</sub>	0.083	
I <sub>a</sub> /P	0.069	
q <sub>u</sub>	1000	(csm/in)
A	0.01359	miles <sup>2</sup>
Qwq	14.99	cfs

Analysis Result

AEP: 1/2

Profile Report

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP1	3.00'	28.237 cubic	7.409 ft/s	0.50%	Normal	DS1	8.301'	0.23'
3	DP1-1	3.00'	22.911 cubic	7.031 ft/s	0.50%	Normal	DS1-1	2.934'	0.12'
4	DP1-2	3.00'	23.222 cubic	7.056 ft/s	0.50%	Normal	DS1-2	---	---
5	DP1-3	3.00'	23.805 cubic	7.101 ft/s	0.50%	Normal	DS1-3	3.792'	0.14'
6	DP1-4	3.00'	23.946 cubic	7.118 ft/s	0.50%	Normal	DS1-4	2.771'	0.12'
7	DP1-5	3.00'	23.913 cubic	7.109 ft/s	0.50%	Normal	DS1-5	8.434'	0.23'
8	DP1-6	3.00'	21.904 cubic	6.950 ft/s	0.50%	Normal	DS1-6	9.236'	0.24'
9	DP1-7	2.50'	19.124 cubic	6.713 ft/s	0.50%	Normal	DS1-7	9.005'	0.24'
10	DP1-8	2.50'	16.379 cubic	6.468 ft/s	0.50%	Normal	DS1-8	7.536'	0.21'
11	DP1-9	2.50'	14.354 cubic	6.256 ft/s	0.50%	Normal	DS1-9	3.490'	0.13'
12	DP1-10	2.50'	14.063 cubic	6.224 ft/s	0.50%	Normal	DS1-10	7.058'	0.20'
13	DP1-11	2.50'	12.360 cubic	6.018 ft/s	0.50%	Normal	DS1-11	10.166'	0.26'
14	DP1-12	2.00'	8.023 cubic f	5.410 ft/s	0.50%	Normal	DS1-12	9.623'	0.25'
15	DP1-13	1.50'	4.009 cubic f	4.549 ft/s	0.50%	Surcharge	DS1-13	3.755'	0.14'
16	DP1-14	1.50'	3.460 cubic f	4.382 ft/s	0.50%	Normal	DS1-14	8.772'	0.24'
2	DP1-15	2.00'	3.552 cubic f	4.337 ft/s	0.50%	Surcharge	DS1-15	8.870'	0.24'

DP1	
HGL Up	9.67
HGL Down	9.36'
EGL Up	10.53'
EGL Down	10.21'
Invert Up	8.08'
Invert Down	7.76'

DS1	
Structure Type	Grate inlet
Rim Elevation	13.08'
HGL	10.85'
EGL	10.85'
Flow	3.039 cubic feet per second
Captured Flow	1.884 cubic feet per second
Bypass Flow	1.155 cubic feet per second

Start Over

Apply Cancel Help

Analysis Result

AEP: 1/10

Profile Report

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP1	3.00'	44.276 cubic	8.138 ft/s	0.50%	Normal	DS1	9.935'	0.26'
3	DP1-1	3.00'	36.190 cubic	7.840 ft/s	0.50%	Surcharge	DS1-1	3.875'	0.14'
4	DP1-2	3.00'	36.636 cubic	7.860 ft/s	0.50%	Surcharge	DS1-2	---	---
5	DP1-3	3.00'	37.438 cubic	7.896 ft/s	0.50%	Surcharge	DS1-3	4.819'	0.16'
6	DP1-4	3.00'	37.539 cubic	7.908 ft/s	0.50%	Normal	DS1-4	3.697'	0.13'
7	DP1-5	3.00'	37.435 cubic	7.895 ft/s	0.50%	Surcharge	DS1-5	10.089'	0.26'
8	DP1-6	3.00'	34.180 cubic	7.744 ft/s	0.50%	Surcharge	DS1-6	11.015'	0.28'
9	DP1-7	2.50'	29.766 cubic	7.282 ft/s	0.50%	Surcharge	DS1-7	10.747'	0.27'
10	DP1-8	2.50'	25.419 cubic	7.126 ft/s	0.50%	Surcharge	DS1-8	9.055'	0.24'
11	DP1-9	2.50'	22.253 cubic	6.943 ft/s	0.50%	Surcharge	DS1-9	4.485'	0.15'
12	DP1-10	2.50'	21.767 cubic	6.910 ft/s	0.50%	Surcharge	DS1-10	8.507'	0.23'
13	DP1-11	2.50'	19.095 cubic	6.710 ft/s	0.50%	Surcharge	DS1-11	12.091'	0.30'
14	DP1-12	2.00'	12.356 cubic	5.992 ft/s	0.50%	Surcharge	DS1-12	11.462'	0.29'
15	DP1-13	1.50'	6.157 cubic f	5.017 ft/s	0.50%	Surcharge	DS1-13	4.778'	0.16'
16	DP1-14	1.50'	5.305 cubic f	4.863 ft/s	0.50%	Surcharge	DS1-14	10.479'	0.27'
2	DP1-15	2.00'	5.447 cubic f	4.884 ft/s	0.50%	Surcharge	DS1-15	10.592'	0.27'

DP1	
HGL Up	10.24'
HGL Down	9.92'
EGL Up	11.27'
EGL Down	10.95'
Invert Up	8.08'
Invert Down	7.76'

DS1	
Structure Type	Grate inlet
Rim Elevation	13.08'
HGL	11.90'
EGL	11.90'
Flow	4.660 cubic feet per second
Captured Flow	2.507 cubic feet per second
Bypass Flow	2.153 cubic feet per second

Start Over

Apply Cancel Help

Analysis Result

AEP: 1/2

Profile Report

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP2	2.50'	16.640 cubic	5.437 ft/s	0.31%	Normal	DS2	8.778'	0.24'
2	DP2-3	2.00'	6.111 cubic f	5.038 ft/s	0.50%	Surcharge	DS2-3	9.673'	0.25'
3	DP2-4	1.50'	1.972 cubic f	3.764 ft/s	0.50%	Surcharge	DS2-4	6.863'	0.20'
4	DP2-1	2.00'	7.812 cubic f	5.373 ft/s	0.50%	Surcharge	DS2-1	9.303'	0.25'
5	DP2-2	1.50'	4.169 cubic f	4.594 ft/s	0.50%	Surcharge	DS2-2	9.487'	0.25'

DP2	
HGL Up	9.99'
HGL Down	9.87'
EGL Up	10.45'
EGL Down	10.33'
Invert Up	8.50'
Invert Down	8.37'

DS2	
Structure Type	Grate inlet
Rim Elevation	14.01'
HGL	10.95'
EGL	10.95'
Flow	3.465 cubic feet per second
Captured Flow	2.058 cubic feet per second
Bypass Flow	1.406 cubic feet per second

Start Over

Apply Cancel Help

Analysis Result

AEP: 1/10

Profile Report

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP2	2.50'	25.711 cubic	5.773 ft/s	0.31%	Normal	DS2	10.486'	0.27'
2	DP2-3	2.00'	9.412 cubic f	5.630 ft/s	0.50%	Surcharge	DS2-3	11.521'	0.29'
3	DP2-4	1.50'	3.025 cubic f	4.230 ft/s	0.50%	Surcharge	DS2-4	8.284'	0.23'
4	DP2-1	2.00'	12.028 cubic	5.958 ft/s	0.50%	Surcharge	DS2-1	11.093'	0.28'
5	DP2-2	1.50'	6.394 cubic f	5.053 ft/s	0.50%	Surcharge	DS2-2	11.306'	0.29'

DP2	
HGL Up	10.63'
HGL Down	10.50'
EGL Up	11.15'
EGL Down	11.02'
Invert Up	8.50'
Invert Down	8.37'

DS2	
Structure Type	Grate inlet
Rim Elevation	14.01'
HGL	11.68'
EGL	11.68'
Flow	5.313 cubic feet per second
Captured Flow	2.734 cubic feet per second
Bypass Flow	2.580 cubic feet per second

Start Over

Apply Cancel Help

Analysis Result AEP: 1/2

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP3	3.00'	31.355 cubic	7.250 ft/s	0.44%	Normal	DS3	6.225'	0.18'
8	DP3-1	2.50'	16.040 cubic	7.752 ft/s	0.83%	Surcharge	DS3-1	8.857'	0.24'
9	DP3-2	2.00'	13.228 cubic	7.217 ft/s	0.78%	Normal	DS3-2	7.168'	0.20'
10	DP3-3	2.00'	11.621 cubic	6.979 ft/s	0.77%	Surcharge	DS3-3	3.918'	0.14'
13	DP3-4	2.00'	9.494 cubic	5.642 ft/s	0.50%	Surcharge	DS3-4	6.929'	0.20'
14	DP3-5	2.00'	7.871 cubic	5.384 ft/s	0.50%	Normal	DS3-5	6.878'	0.20'
15	DP3-6	2.00'	6.221 cubic	5.062 ft/s	0.50%	Normal	DS3-6	6.906'	0.20'
16	DP3-7	1.50'	4.448 cubic	4.667 ft/s	0.50%	Normal	DS3-7	5.500'	0.17'
17	DP3-8	1.50'	3.351 cubic	4.345 ft/s	0.50%	Normal	DS3-8	4.847'	0.16'
18	DP3-9	1.50'	2.488 cubic	4.013 ft/s	0.50%	Normal	DS3-9	4.198'	0.14'
19	DP3-10	1.50'	1.807 cubic	3.673 ft/s	0.50%	Normal	DS3-10	3.521'	0.13'
21	DP3-11	1.00'	0.946 cubic	3.159 ft/s	0.50%	Normal	DS3-11	4.809'	0.16'
20	DP3-12	1.00'	0.411 cubic	2.503 ft/s	0.50%	Normal	DS3-12	2.896'	0.12'
11	DP3-13	1.50'	1.907 cubic	3.729 ft/s	0.50%	Normal	DS3-13	4.473'	0.15'
12	DP3-14	1.00'	1.181 cubic	3.350 ft/s	0.50%	Normal	DS3-14	5.386'	0.17'
2	DP3-15	2.00'	10.096 cubic	5.726 ft/s	0.50%	Surcharge	DS3-15	8.974'	0.24'
3	DP3-16	2.00'	6.948 cubic	5.212 ft/s	0.50%	Surcharge	DS3-16	8.927'	0.24'
4	DP3-17	1.50'	3.629 cubic	6.344 ft/s	1.33%	Surcharge	DS3-17	4.918'	0.16'
5	DP3-18	1.50'	2.869 cubic	5.653 ft/s	1.16%	Normal	DS3-18	8.098'	0.22'
6	DP3-19	1.50'	4.895 cubic	4.775 ft/s	0.50%	Surcharge	DS3-19	6.170'	0.18'

DP3	
HGL Up	11.33'
HGL Down	11.16'
EGL Up	12.15'
EGL Down	11.98'
Invert Up	9.57'
Invert Down	9.40'
DS3	
Structure Type	Grate inlet
Rim Elevation	14.59'
HGL	12.79'
EGL	12.79'
Flow	1.595 cubic feet per second
Captured Flow	1.203 cubic feet per second
Bypass Flow	0.392 cubic feet per second

Start Over

Apply Cancel Help

Analysis Result AEP: 1/10

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP3	3.00'	48.652 cubic	7.755 ft/s	0.44%	Normal	DS3	7.555'	0.21'
8	DP3-1	2.50'	25.145 cubic	8.671 ft/s	0.83%	Surcharge	DS3-1	10.577'	0.27'
9	DP3-2	2.00'	20.664 cubic	7.823 ft/s	0.78%	Surcharge	DS3-2	8.633'	0.23'
10	DP3-3	2.00'	18.115 cubic	7.674 ft/s	0.77%	Surcharge	DS3-3	4.959'	0.16'
13	DP3-4	2.00'	14.773 cubic	6.195 ft/s	0.50%	Surcharge	DS3-4	8.359'	0.23'
14	DP3-5	2.00'	12.222 cubic	5.978 ft/s	0.50%	Surcharge	DS3-5	8.301'	0.23'
15	DP3-6	2.00'	9.638 cubic	5.663 ft/s	0.50%	Surcharge	DS3-6	8.333'	0.23'
16	DP3-7	1.50'	6.885 cubic	5.116 ft/s	0.50%	Surcharge	DS3-7	6.732'	0.19'
17	DP3-8	1.50'	5.181 cubic	4.837 ft/s	0.50%	Surcharge	DS3-8	5.996'	0.18'
18	DP3-9	1.50'	3.841 cubic	4.501 ft/s	0.50%	Surcharge	DS3-9	5.270'	0.17'
19	DP3-10	1.50'	2.788 cubic	4.139 ft/s	0.50%	Surcharge	DS3-10	4.520'	0.15'
21	DP3-11	1.00'	1.451 cubic	3.528 ft/s	0.50%	Surcharge	DS3-11	5.953'	0.18'
20	DP3-12	1.00'	0.631 cubic	2.826 ft/s	0.50%	Surcharge	DS3-12	3.833'	0.14'
11	DP3-13	1.50'	2.940 cubic	4.198 ft/s	0.50%	Surcharge	DS3-13	5.577'	0.17'
12	DP3-14	1.00'	1.812 cubic	3.717 ft/s	0.50%	Surcharge	DS3-14	6.603'	0.19'
2	DP3-15	2.00'	15.632 cubic	6.244 ft/s	0.50%	Surcharge	DS3-15	10.713'	0.27'
3	DP3-16	2.00'	10.723 cubic	5.807 ft/s	0.50%	Flooded	DS3-16	10.658'	0.27'
4	DP3-17	1.50'	5.583 cubic	7.122 ft/s	1.33%	Flooded	DS3-17	6.076'	0.18'
5	DP3-18	1.50'	4.400 cubic	6.356 ft/s	1.16%	Surcharge	DS3-18	9.702'	0.25'
6	DP3-19	1.50'	7.530 cubic	5.175 ft/s	0.50%	Flooded	DS3-19	7.493'	0.21'

DP3	
HGL Up	12.06'
HGL Down	11.89'
EGL Up	12.99'
EGL Down	12.82'
Invert Up	9.57'
Invert Down	9.40'
DS3	
Structure Type	Grate inlet
Rim Elevation	14.59'
HGL	13.95'
EGL	13.95'
Flow	2.446 cubic feet per second
Captured Flow	1.625 cubic feet per second
Bypass Flow	0.822 cubic feet per second

Start Over

Apply Cancel Help

Analysis Result AEP: 1/2

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP4	3.00'	25.686 cubic	7.238 ft/s	0.50%	Normal	DS4	7.445'	0.15'
2	DP4-3	2.00'	10.133 cubic	5.731 ft/s	0.50%	Normal	DS4-3	10.110'	0.26'
3	DP4-4	2.00'	5.703 cubic	4.945 ft/s	0.50%	Normal	DS4-4	7.025'	0.14'
4	DP4-5	1.50'	4.288 cubic	5.001 ft/s	0.62%	Normal	DS4-5	6.095'	0.18'
5	DP4-6	1.50'	3.154 cubic	5.435 ft/s	0.96%	Normal	DS4-6	8.434'	0.23'
6	DP4-7	2.00'	11.141 cubic	5.858 ft/s	0.50%	Surcharge	DS4-7	9.549'	0.25'
7	DP4-8	2.00'	7.176 cubic	5.256 ft/s	0.50%	Surcharge	DS4-8	11.844'	0.30'
8	DP4-1	1.50'	4.603 cubic	4.706 ft/s	0.50%	Surcharge	DS4-1	8.040'	0.22'
9	DP4-2	1.00'	2.034 cubic	4.914 ft/s	0.97%	Surcharge	DS4-2	6.958'	0.20'

DP4	
HGL Up	11.02'
HGL Down	10.85'
EGL Up	11.84'
EGL Down	11.67'
Invert Up	9.52'
Invert Down	9.35'
DS4	
Structure Type	Grate inlet
Rim Elevation	14.52'
HGL	12.43'
EGL	12.43'
Flow	1.897 cubic feet per second
Captured Flow	1.128 cubic feet per second
Bypass Flow	0.768 cubic feet per second

Start Over

Apply Cancel Help

Analysis Result AEP: 1/10

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP4	3.00'	39.740 cubic	7.989 ft/s	0.50%	Normal	DS4	8.928'	0.18'
2	DP4-3	2.00'	15.639 cubic	6.245 ft/s	0.50%	Surcharge	DS4-3	12.027'	0.30'
3	DP4-4	2.00'	8.777 cubic	5.534 ft/s	0.50%	Surcharge	DS4-4	8.247'	0.16'
4	DP4-5	1.50'	6.577 cubic	5.524 ft/s	0.62%	Surcharge	DS4-5	7.407'	0.21'
5	DP4-6	1.50'	4.836 cubic	6.094 ft/s	0.96%	Surcharge	DS4-6	10.088'	0.26'
6	DP4-7	2.00'	17.128 cubic	6.288 ft/s	0.50%	Flooded	DS4-7	11.377'	0.29'
7	DP4-8	2.00'	11.006 cubic	5.842 ft/s	0.50%	Flooded	DS4-8	14.040'	0.34'
8	DP4-1	1.50'	7.059 cubic	5.136 ft/s	0.50%	Surcharge	DS4-1	9.635'	0.25'
9	DP4-2	1.00'	3.119 cubic	5.392 ft/s	0.97%	Surcharge	DS4-2	8.393'	0.23'

DP4	
HGL Up	11.51'
HGL Down	11.34'
EGL Up	12.50'
EGL Down	12.33'
Invert Up	9.52'
Invert Down	9.35'
DS4	
Structure Type	Grate inlet
Rim Elevation	14.52'
HGL	13.79'
EGL	13.79'
Flow	3.080 cubic feet per second
Captured Flow	1.599 cubic feet per second
Bypass Flow	1.481 cubic feet per second

Start Over

Apply Cancel Help



Analysis Result AEP: 1/2 Profile Report

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP5	2.50'	14.737 cubic	6.363 ft/s	0.51%	Normal	DS5	2.928'	0.12'
2	DP5-4	1.50'	3.963 cubic f	4.536 ft/s	0.50%	Normal	DS5-4	3.908'	0.14'
3	DP5-5	1.50'	3.561 cubic f	4.414 ft/s	0.50%	Normal	DS5-5	4.245'	0.14'
4	DP5-6	1.50'	2.984 cubic f	4.215 ft/s	0.50%	Normal	DS5-6	5.727'	0.17'
5	DP5-7	1.00'	1.762 cubic f	3.694 ft/s	0.50%	Normal	DS5-7	6.520'	0.19'
6	DP5-1	2.00'	10.999 cubic	5.841 ft/s	0.50%	Surcharge	DS5-1	2.774'	0.12'
7	DP5-2	2.00'	10.863 cubic	5.824 ft/s	0.50%	Normal	DS5-2	7.897'	0.22'
8	DP5-3	2.00'	8.456 cubic f	5.482 ft/s	0.50%	Normal	DS5-3	12.647'	0.31'

DP5

HGL Up	9.92'
HGL Down	9.70'
EGL Up	10.55'
EGL Down	10.33'
Invert Up	8.73'
Invert Down	8.50'

DS5

Structure Type	Grate inlet
Rim Elevation	17.62'
HGL	10.89'
EGL	10.89'
Flow	0.418 cubic feet per second
Captured Flow	0.411 cubic feet per second
Bypass Flow	0.007 cubic feet per second

Start Over Apply Cancel Help

Analysis Result AEP: 1/10 Profile Report

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP5	2.50'	22.747 cubic	7.051 ft/s	0.51%	Normal	DS5	3.868'	0.14'
2	DP5-4	1.50'	6.153 cubic f	5.016 ft/s	0.50%	Normal	DS5-4	4.947'	0.16'
3	DP5-5	1.50'	5.499 cubic f	4.901 ft/s	0.50%	Surcharge	DS5-5	5.323'	0.17'
4	DP5-6	1.50'	4.588 cubic f	4.702 ft/s	0.50%	Normal	DS5-6	6.990'	0.20'
5	DP5-7	1.00'	2.703 cubic f	3.962 ft/s	0.50%	Surcharge	DS5-7	7.891'	0.22'
6	DP5-1	2.00'	16.941 cubic	6.287 ft/s	0.50%	Surcharge	DS5-1	3.700'	0.13'
7	DP5-2	2.00'	16.704 cubic	6.283 ft/s	0.50%	Surcharge	DS5-2	9.471'	0.25'
8	DP5-3	2.00'	12.968 cubic	6.051 ft/s	0.50%	Surcharge	DS5-3	14.975'	0.36'

DP5

HGL Up	10.29'
HGL Down	10.06'
EGL Up	11.06'
EGL Down	10.84'
Invert Up	8.73'
Invert Down	8.50'

DS5

Structure Type	Grate inlet
Rim Elevation	17.62'
HGL	12.07'
EGL	12.07'
Flow	0.641 cubic feet per second
Captured Flow	0.597 cubic feet per second
Bypass Flow	0.044 cubic feet per second

Start Over Apply Cancel Help

Analysis Result AEP: 1/2 Profile Report

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP6	3.00'	31.838 cubic	7.622 ft/s	0.50%	Normal	DS6	---	---
2	DP6-1	3.00'	30.573 cubic	7.550 ft/s	0.50%	Normal	DS6-1	8.932'	0.24'
3	DP6-2	3.00'	28.195 cubic	7.406 ft/s	0.50%	Normal	DS6-2	8.807'	0.24'
4	DP6-3	3.00'	26.141 cubic	7.270 ft/s	0.50%	Normal	DS6-3	4.054'	0.14'
5	DP6-4	3.00'	26.008 cubic	7.261 ft/s	0.50%	Normal	DS6-4	6.600'	0.19'
6	DP6-13	1.50'	2.396 cubic f	3.972 ft/s	0.50%	Normal	DS6-13	7.486'	0.21'
7	DP6-5	3.00'	23.739 cubic	7.096 ft/s	0.50%	Normal	DS6-5	9.194'	0.24'
8	DP6-6	3.00'	20.873 cubic	6.863 ft/s	0.50%	Normal	DS6-6	9.180'	0.24'
9	DP6-7	2.50'	17.671 cubic	6.588 ft/s	0.50%	Normal	DS6-7	9.136'	0.24'
10	DP6-8	2.50'	14.348 cubic	6.256 ft/s	0.50%	Normal	DS6-8	5.627'	0.17'
11	DP6-9	2.50'	13.477 cubic	6.156 ft/s	0.50%	Normal	DS6-9	6.505'	0.19'
12	DP6-10	2.50'	12.250 cubic	6.004 ft/s	0.50%	Normal	DS6-10	6.905'	0.20'
13	DP6-11	2.00'	10.548 cubic	5.785 ft/s	0.50%	Normal	DS6-11	10.762'	0.28'
14	DP6-12	1.50'	5.114 cubic f	4.823 ft/s	0.50%	Surcharge	DS6-12	10.322'	0.27'
15	DP6-14	1.50'	1.715 cubic f	3.620 ft/s	0.50%	Normal	DS6-14	6.438'	0.19'

DP6

HGL Up	10.27'
HGL Down	9.96'
EGL Up	11.17'
EGL Down	10.86'
Invert Up	8.55'
Invert Down	8.24'

DS6

Structure Type	<none>
Rim Elevation	19.84'
HGL	11.59'
EGL	11.59'

Start Over Apply Cancel Help

Analysis Result AEP: 1/10 Profile Report

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP6	3.00'	49.313 cubic	8.234 ft/s	0.50%	Normal	DS6	---	---
2	DP6-1	3.00'	47.358 cubic	8.208 ft/s	0.50%	Surcharge	DS6-1	10.663'	0.27'
3	DP6-2	3.00'	43.904 cubic	8.127 ft/s	0.50%	Surcharge	DS6-2	10.520'	0.27'
4	DP6-3	3.00'	40.609 cubic	8.021 ft/s	0.50%	Surcharge	DS6-3	5.109'	0.16'
5	DP6-4	3.00'	40.336 cubic	8.011 ft/s	0.50%	Surcharge	DS6-4	7.983'	0.22'
6	DP6-13	1.50'	3.675 cubic f	4.450 ft/s	0.50%	Normal	DS6-13	8.999'	0.24'
7	DP6-5	3.00'	36.644 cubic	7.861 ft/s	0.50%	Surcharge	DS6-5	10.966'	0.28'
8	DP6-6	3.00'	32.096 cubic	7.636 ft/s	0.50%	Surcharge	DS6-6	10.951'	0.28'
9	DP6-7	2.50'	27.101 cubic	7.201 ft/s	0.50%	Surcharge	DS6-7	10.899'	0.28'
10	DP6-8	2.50'	22.207 cubic	6.940 ft/s	0.50%	Surcharge	DS6-8	6.876'	0.20'
11	DP6-9	2.50'	20.807 cubic	6.843 ft/s	0.50%	Surcharge	DS6-9	7.874'	0.22'
12	DP6-10	2.50'	18.846 cubic	6.690 ft/s	0.50%	Surcharge	DS6-10	8.332'	0.23'
13	DP6-11	2.00'	16.201 cubic	6.269 ft/s	0.50%	Flooded	DS6-11	12.783'	0.32'
14	DP6-12	1.50'	7.842 cubic f	5.189 ft/s	0.50%	Flooded	DS6-12	12.273'	0.31'
15	DP6-14	1.50'	2.630 cubic f	4.074 ft/s	0.50%	Normal	DS6-14	7.799'	0.22'

DP6

HGL Up	10.92'
HGL Down	10.61'
EGL Up	11.97'
EGL Down	11.66'
Invert Up	8.55'
Invert Down	8.24'

DS6

Structure Type	<none>
Rim Elevation	19.84'
HGL	12.69'
EGL	12.69'

Start Over Apply Cancel Help

Analysis Result

AEP: 1/2

Profile Report

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP7	3.00'	23.427 cubic	7.725 ft/s	0.63%	Normal	DS7	3.243'	0.12'
2	DP7-1	2.00'	9.244 cubic f	5.595 ft/s	0.50%	Normal	DS7-1	5.701'	0.17'
3	DP7-2	2.00'	8.515 cubic f	5.506 ft/s	0.50%	Normal	DS7-2	4.993'	0.16'
4	DP7-3	2.00'	7.954 cubic f	5.387 ft/s	0.50%	Normal	DS7-3	5.872'	0.18'
5	DP7-4	2.00'	6.997 cubic f	5.226 ft/s	0.50%	Normal	DS7-4	3.509'	0.13'
6	DP7-5	2.00'	6.803 cubic f	5.180 ft/s	0.50%	Normal	DS7-5	4.021'	0.14'
7	DP7-6	2.00'	6.353 cubic f	5.098 ft/s	0.50%	Normal	DS7-6	5.534'	0.17'
8	DP7-7	1.00'	0.725 cubic f	2.938 ft/s	0.50%	Normal	DS7-7	4.157'	0.14'
9	DP7-8	1.50'	4.632 cubic f	4.713 ft/s	0.50%	Surcharge	DS7-8	7.854'	0.22'
10	DP7-9	1.50'	2.031 cubic f	3.795 ft/s	0.50%	Normal	DS7-9	6.955'	0.20'
11	DP7-10	2.50'	14.893 cubic	6.315 ft/s	0.50%	Normal	DS7-10	5.151'	0.16'
12	DP7-11	2.50'	14.285 cubic	6.408 ft/s	0.54%	Normal	DS7-11	6.330'	0.19'
13	DP7-12	2.50'	13.324 cubic	6.068 ft/s	0.48%	Normal	DS7-12	7.473'	0.21'
14	DP7-13	2.50'	11.724 cubic	5.940 ft/s	0.50%	Normal	DS7-13	6.354'	0.19'
15	DP7-14	2.00'	10.385 cubic	5.793 ft/s	0.51%	Normal	DS7-14	5.888'	0.18'
16	DP7-15	2.00'	9.391 cubic f	5.628 ft/s	0.50%	Normal	DS7-15	7.948'	0.22'
17	DP7-16	2.00'	7.082 cubic f	5.240 ft/s	0.50%	Normal	DS7-16	7.910'	0.22'
18	DP7-17	1.50'	4.704 cubic f	4.727 ft/s	0.50%	Normal	DS7-17	7.533'	0.21'
19	DP7-18	1.50'	2.494 cubic f	4.022 ft/s	0.50%	Normal	DS7-18	4.220'	0.14'
20	DP7-19	1.50'	1.843 cubic f	3.694 ft/s	0.50%	Normal	DS7-19	6.655'	0.19'

DP7	
HGL Up	12.79'
HGL Down	12.52'
EGL Up	13.72'
EGL Down	13.45'
Invert Up	11.46'
Invert Down	11.19'

DS7	
Structure Type	Grate inlet
Rim Elevation	18.93'
HGL	13.94'
EGL	13.94'
Flow	0.484 cubic feet per second
Captured Flow	0.469 cubic feet per second
Bypass Flow	0.015 cubic feet per second

Start Over

Apply Cancel Help

Analysis Result

AEP: 1/10

Profile Report

Line	Pipe	Pipe Diameter	Pipe Flow	Velocity	Pipe Slope	Performance	Structure	Spread	Inlet Depth
1	DP7	3.00'	36.470 cubic	8.619 ft/s	0.63%	Normal	DS7	4.213'	0.14'
2	DP7-1	2.00'	14.333 cubic	6.152 ft/s	0.50%	Surcharge	DS7-1	6.960'	0.20'
3	DP7-2	2.00'	13.152 cubic	6.084 ft/s	0.50%	Surcharge	DS7-2	6.160'	0.18'
4	DP7-3	2.00'	12.242 cubic	5.966 ft/s	0.50%	Surcharge	DS7-3	7.154'	0.20'
5	DP7-4	2.00'	10.731 cubic	5.813 ft/s	0.50%	Surcharge	DS7-4	4.506'	0.15'
6	DP7-5	2.00'	10.526 cubic	5.778 ft/s	0.50%	Surcharge	DS7-5	5.073'	0.16'
7	DP7-6	2.00'	9.798 cubic f	5.694 ft/s	0.50%	Normal	DS7-6	6.771'	0.20'
8	DP7-7	1.00'	1.112 cubic f	3.297 ft/s	0.50%	Surcharge	DS7-7	5.224'	0.16'
9	DP7-8	1.50'	7.115 cubic f	5.141 ft/s	0.50%	Surcharge	DS7-8	9.421'	0.25'
10	DP7-9	1.50'	3.115 cubic f	4.263 ft/s	0.50%	Surcharge	DS7-9	8.389'	0.23'
11	DP7-10	2.50'	23.429 cubic	7.017 ft/s	0.50%	Surcharge	DS7-10	6.337'	0.19'
12	DP7-11	2.50'	22.422 cubic	7.142 ft/s	0.54%	Surcharge	DS7-11	7.675'	0.21'
13	DP7-12	2.50'	20.840 cubic	6.763 ft/s	0.48%	Surcharge	DS7-12	8.984'	0.24'
14	DP7-13	2.50'	18.261 cubic	6.646 ft/s	0.50%	Surcharge	DS7-13	7.703'	0.21'
15	DP7-14	2.00'	16.160 cubic	6.304 ft/s	0.51%	Surcharge	DS7-14	7.172'	0.20'
16	DP7-15	2.00'	14.574 cubic	6.182 ft/s	0.50%	Surcharge	DS7-15	9.529'	0.25'
17	DP7-16	2.00'	10.964 cubic	5.839 ft/s	0.50%	Surcharge	DS7-16	9.485'	0.25'
18	DP7-17	1.50'	7.266 cubic f	5.152 ft/s	0.50%	Surcharge	DS7-17	9.052'	0.24'
19	DP7-18	1.50'	3.840 cubic f	4.507 ft/s	0.50%	Surcharge	DS7-18	5.295'	0.17'
20	DP7-19	1.50'	2.826 cubic f	4.154 ft/s	0.50%	Surcharge	DS7-19	8.046'	0.22'

DP7	
HGL Up	13.19'
HGL Down	12.93'
EGL Up	14.35'
EGL Down	14.08'
Invert Up	11.46'
Invert Down	11.19'

DS7	
Structure Type	Grate inlet
Rim Elevation	18.93'
HGL	15.22'
EGL	15.22'
Flow	0.742 cubic feet per second
Captured Flow	0.673 cubic feet per second
Bypass Flow	0.069 cubic feet per second

Start Over

Apply Cancel Help

## **Appendix D**

# **Alternative Stormwater Practice Specifications**



# Jellyfish<sup>®</sup> Filter

## Stormwater Treatment





# The experts you need to solve your stormwater challenges



**Contech is the leader in stormwater solutions, helping engineers, contractors and owners with infrastructure and land development projects throughout North America.**

With our responsive team of stormwater experts, local regulatory expertise and flexible solutions, Contech is the trusted partner you can count on for stormwater management solutions.

## Your Contech Team



### **STORMWATER CONSULTANT**

*It's my job to recommend the best solution to meet permitting requirements.*



### **STORMWATER DESIGN ENGINEER**

*I work with consultants to design the best approved solution to meet your project's needs.*



### **REGULATORY MANAGER**

*I understand the local stormwater regulations and what solutions will be approved.*



### **SALES ENGINEER**

*I make sure our solutions meet the needs of the contractor during construction.*

**Contech is your partner in stormwater management solutions**



## Setting new standards in Stormwater Treatment – Jellyfish® Filter

*The Jellyfish Filter has been tested in the field and laboratory, and has received approval from numerous stormwater regulatory agencies.*

The Jellyfish Filter is a stormwater quality treatment technology featuring high flow pretreatment and membrane filtration in a compact stand-alone system. Jellyfish removes floatables, trash, oil, debris, TSS, fine silt-sized particles, and a high percentage of particulate-bound pollutants; including phosphorus, nitrogen, metals and hydrocarbons. The high surface area membrane cartridges, combined with up-flow hydraulics, frequent, passive backwashing, and rinseable/reusable cartridges ensure long-lasting performance.

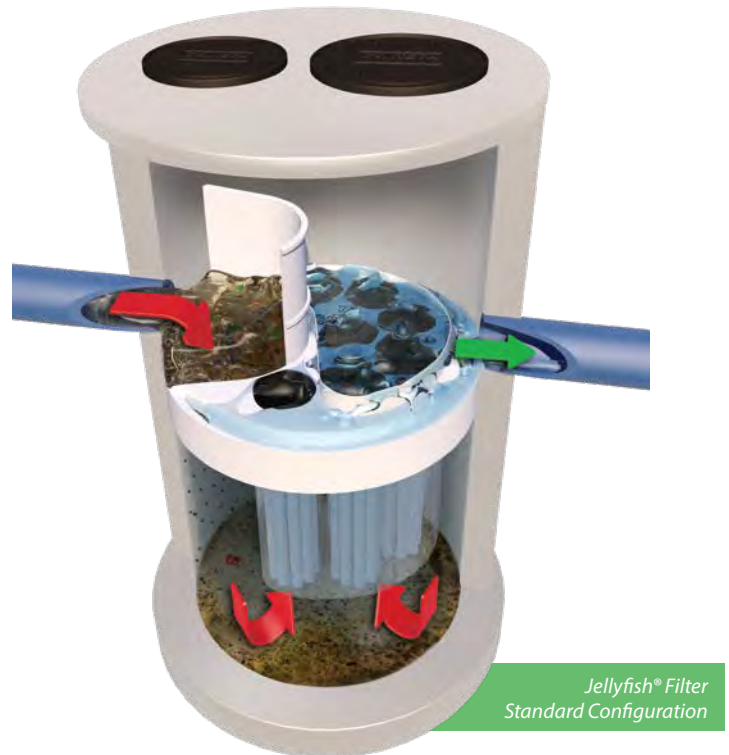
*Jellyfish® Filter*



# How the Jellyfish® Filter Treats Stormwater

## Tested in the field and laboratory ...

- Stormwater enters the Jellyfish through the inlet pipe and traps floating pollutants behind the maintenance access wall and below the cartridge deck.
- Water is conveyed below the cartridge deck where a separation skirt around the cartridges isolates oil, trash and debris outside the filtration zone.
- Water is directed to the filtration zone and up through the top of the cartridge where it exits via the outlet pipe.
- The membrane filters provide a very large surface area to effectively remove fine sand and silt-sized particles, and a high percentage of particulate-bound pollutants such as nitrogen, phosphorus, metals, and hydrocarbons while ensuring long-lasting treatment.
- As influent flow subsides, the water in the backwash pool flows back into the lower chamber. This passive backwash extends cartridge life.
- The draindown cartridge(s) located outside the backwash pool enables water levels to balance.

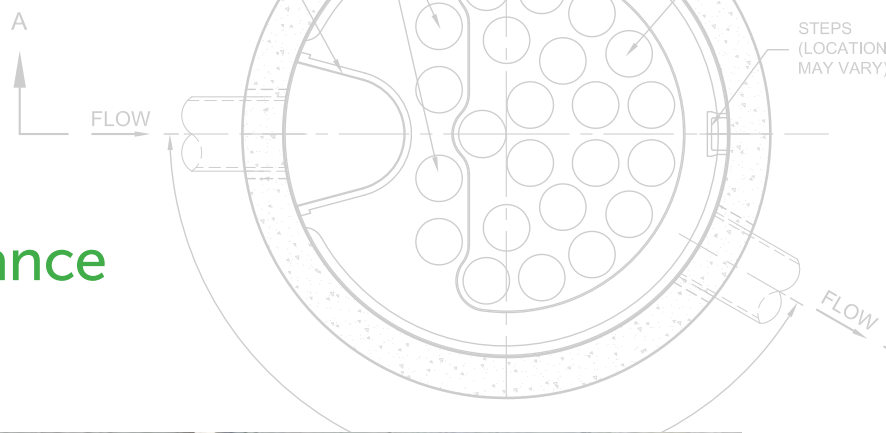


Learn More:  
[www.ContechES.com/jellyfish](http://www.ContechES.com/jellyfish)



Pretreat bioretention or infiltration with Jellyfish to extend service life.

# Jellyfish® Filter Performance Testing Results



## APPLICATION TIPS

- The Peak Diversion Jellyfish provides treatment and high-flow bypass in one structure, eliminating the need for a separate bypass structure.
- LID and GI are complemented by filtration solutions, as they help keep sites free from fine sediments that can impede performance, remove unsightly trash, and provide a single point of maintenance.
- Selecting a filter with a long maintenance cycle and low maintenance cost will result in healthy waterways and happy property owners.



*The pleated tentacles of the Jellyfish® Filter provide a large surface area for pollutant removal.*

POLLUTANT OF CONCERN	% REMOVAL
Total Trash	99%
Total Suspended Solids (TSS)	89%
Total Phosphorus (TP)	59%
Total Nitrogen (TN)	51%
Total Copper (TCu)	> 50%
Total Zinc (TZn)	> 50%



Sources:  
 TARP II Field Study – 2012 JF 4-2-1 Configuration  
 MRDC Floatables Testing – 2008 JF6-6-1 Configuration

# Jellyfish<sup>®</sup> Filter Features and Benefits

FEATURE	BENEFITS
High surface area membrane filtration	Low flux rate promotes cake filtration and slows membrane occlusion
High design treatment flow rate per cartridge (up to 80 gpm (5 L/s))	Compact system with a small footprint, lower construction cost
Low driving head (typically 18 inches or less (457 mm))	Design flexibility, lower construction cost
Lightweight cartridges with passive backwash	Easy maintenance and low life-cycle cost

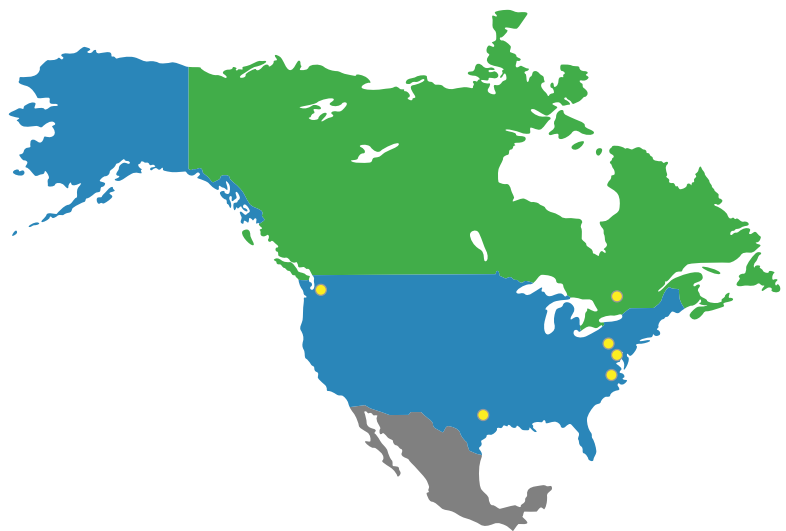


The Jellyfish Filter can be configured in a manhole, catch basin, or vault.

## Select Jellyfish<sup>®</sup> Filter Certifications and Verifications

The Jellyfish Filter has been reviewed by numerous state and federal programs, including:

- Washington State Department of Ecology (TAPE) GULD – BASIC, Phosphorus
- Virginia Department of Environmental Quality (VA DEQ)
- Texas Commission of Environmental Quality (TCEQ)
- Canada ISO 14034 Environmental Management – Environmental Technology Verification (ETV)
- Philadelphia Water District (PWD)
- Maryland Department of the Environment (MD DOE)

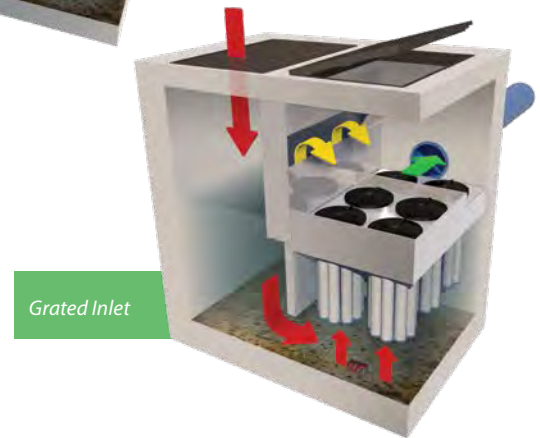
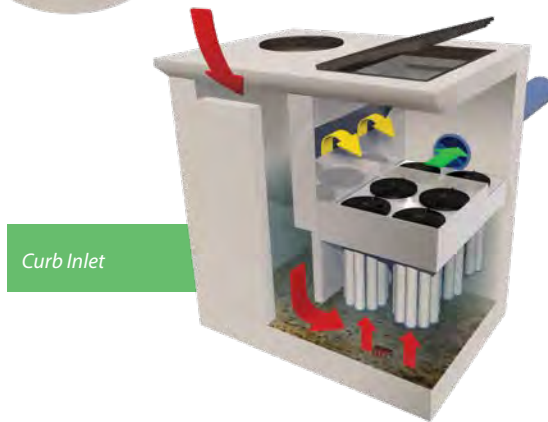
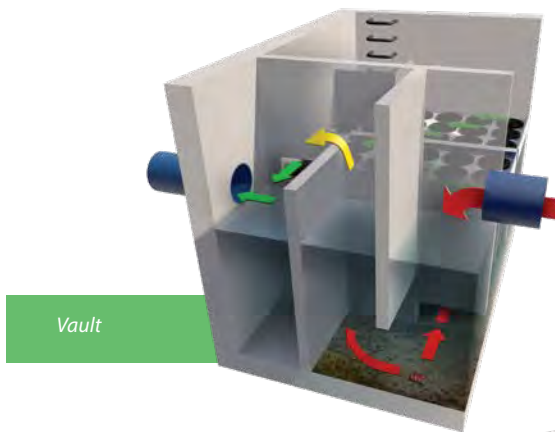
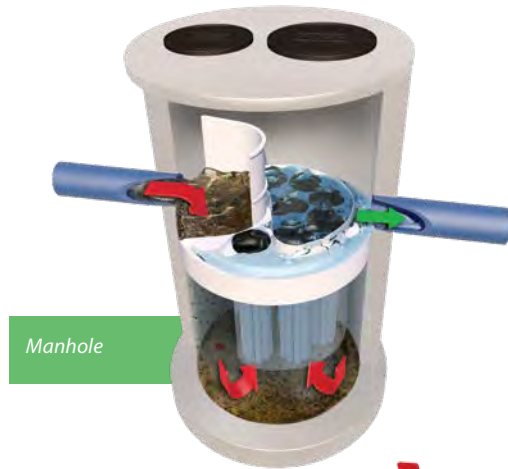
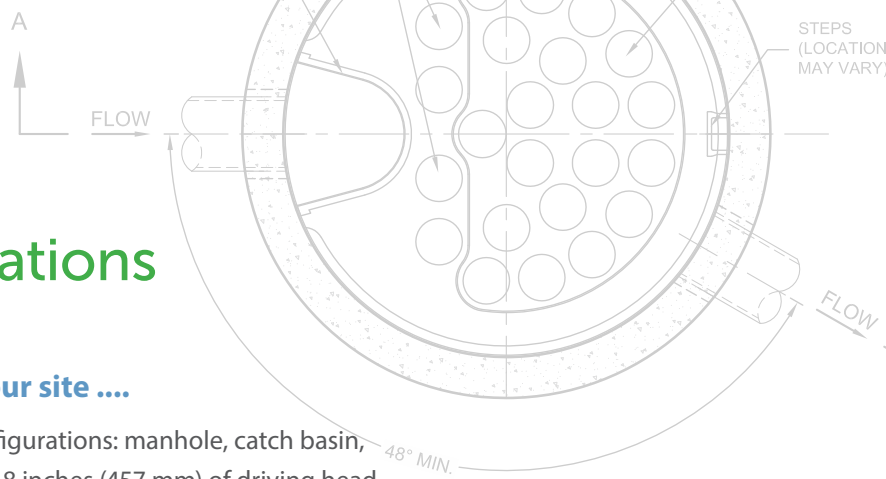


Field tested and performance verified

# Jellyfish<sup>®</sup> Filter Configurations

## Multiple system configurations to optimize your site ....

The Jellyfish Filter can be manufactured in a variety of configurations: manhole, catch basin, vault, fiberglass tank, or custom configurations. Typically, 18 inches (457 mm) of driving head is designed into the system. For low drop sites, the designed driving head can be less.



# Jellyfish<sup>®</sup> Filter Maintenance

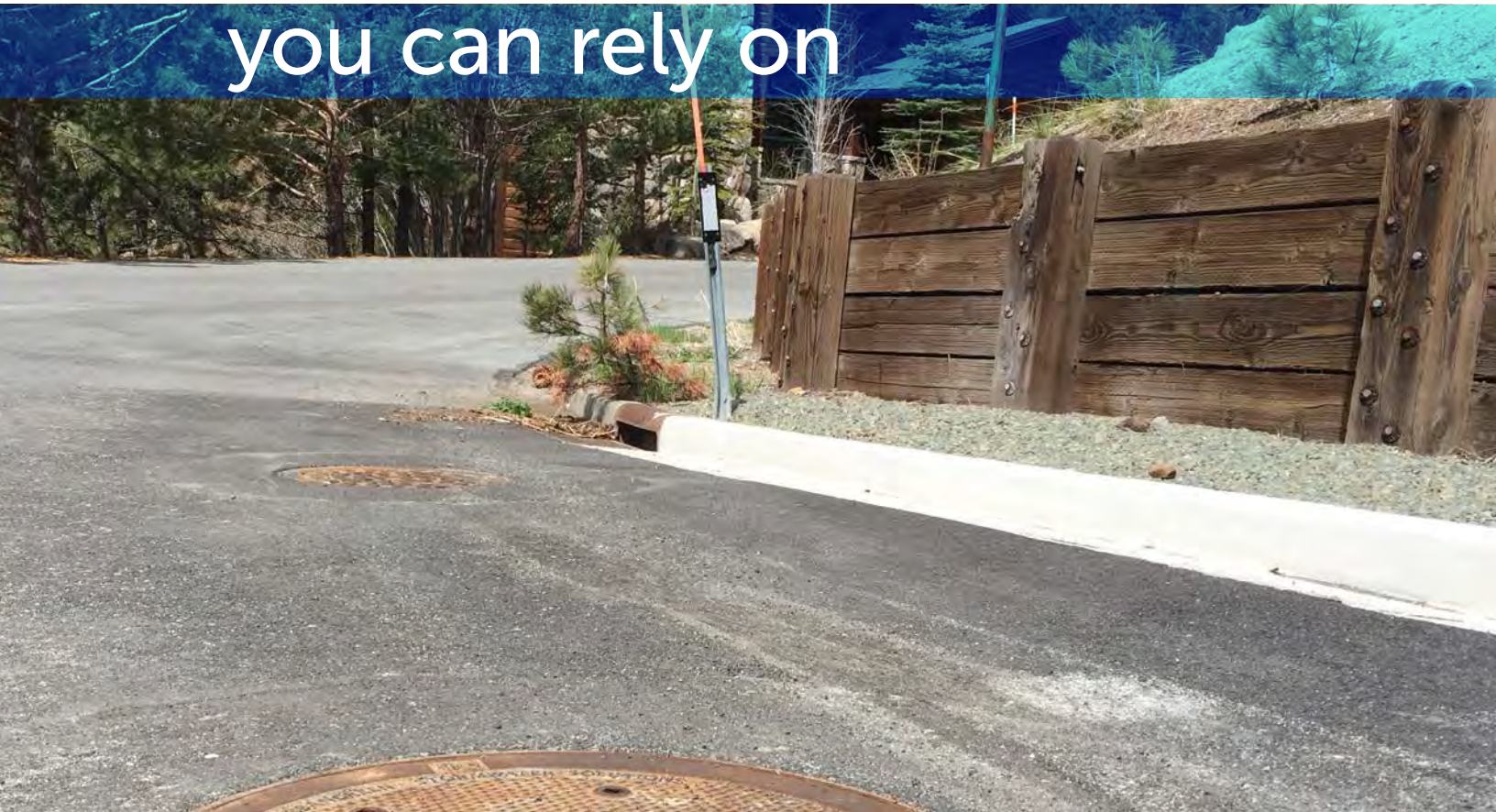
- Jellyfish Filter cartridges are light weight and reusable
- Maintenance of the filter cartridges is performed by removing, rinsing and reusing the cartridge tentacles.
- Vacuum extraction of captured pollutants in the sump is recommended at the same time.
- Full cartridge replacement intervals differ by site due to varying pollutant loading and type, and maintenance frequency. Replacement is anticipated every 2-5 years.
- Contech<sup>®</sup> has created a network of Certified Maintenance Providers to provide maintenance on stormwater BMP's.



The Jellyfish<sup>®</sup> Filter tentacle is light and easy to clean.



# A partner you can rely on



STORMWATER  
SOLUTIONS



PIPE  
SOLUTIONS



STRUCTURES  
SOLUTIONS

Few companies offer the wide range of high-quality stormwater resources you can find with us — state-of-the-art products, decades of expertise, and all the maintenance support you need to operate your system cost-effectively.

## THE CONTECH WAY

Contech® Engineered Solutions provides innovative, cost-effective site solutions to engineers, contractors, and developers on projects across North America. Our portfolio includes bridges, drainage, erosion control, retaining wall, sanitary sewer and stormwater management products.

## TAKE THE NEXT STEP

For more information: [www.ContechES.com](http://www.ContechES.com)

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## **Appendix E**

### **NRCS Soils Report**





United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Albany County, New York**



# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

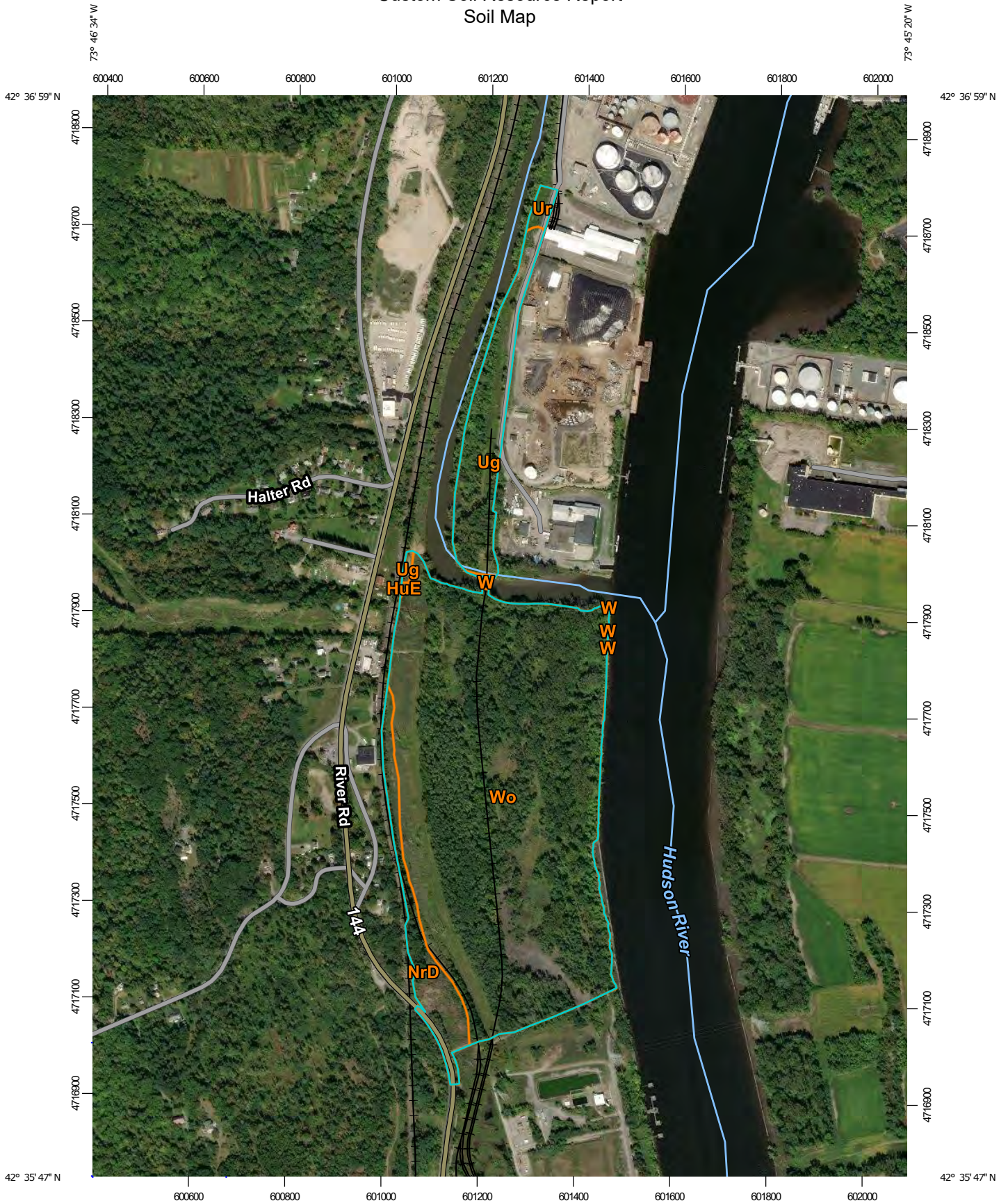
# Soil Map

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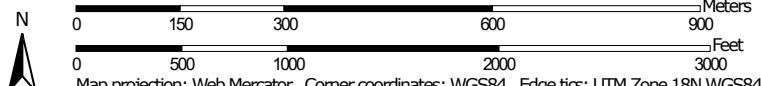
The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



# Custom Soil Resource Report Soil Map




Map Scale: 1:10,900 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84


### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)




















**Soils**







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

**Special Point Features**






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Albany County, New York  
 Survey Area Data: Version 19, Aug 29, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 1, 2014—Sep 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HuE	Hudson silt loam, 25 to 45 percent slopes	0.1	0.1%
NrD	Nassau very channery silt loam, hilly, very rocky	7.2	6.7%
Ug	Udorthents, loamy	11.6	10.7%
Ur	Urban land	0.8	0.8%
W	Water	0.1	0.1%
Wo	Wayland soils complex, non-calcareous substratum, 0 to 3 percent slopes, frequently flooded	88.7	81.7%
<b>Totals for Area of Interest</b>		<b>108.6</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

## Custom Soil Resource Report

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.



## Albany County, New York

### HuE—Hudson silt loam, 25 to 45 percent slopes

#### Map Unit Setting

*National map unit symbol:* 9pg8  
*Elevation:* 300 to 1,800 feet  
*Mean annual precipitation:* 36 to 41 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 100 to 170 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Hudson and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Hudson

##### Setting

*Landform:* Lake plains  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Riser  
*Down-slope shape:* Concave  
*Across-slope shape:* Convex  
*Parent material:* Clayey and silty glaciolacustrine deposits

##### Typical profile

*H1 - 0 to 11 inches:* silt loam  
*H2 - 11 to 16 inches:* silty clay loam  
*H3 - 16 to 31 inches:* silty clay  
*H4 - 31 to 60 inches:* clay

##### Properties and qualities

*Slope:* 25 to 45 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 18 to 24 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Available water supply, 0 to 60 inches:* High (about 9.7 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* C/D  
*Ecological site:* F144AY018NY - Moist Lake Plain  
*Hydric soil rating:* No

#### Minor Components

##### Unnamed soils

*Percent of map unit:* 5 percent

**Unadilla**

*Percent of map unit: 5 percent*  
*Hydric soil rating: No*

**Colonie**

*Percent of map unit: 3 percent*  
*Hydric soil rating: No*

**Udifuluents**

*Percent of map unit: 1 percent*  
*Hydric soil rating: No*

**Fluvaquents**

*Percent of map unit: 1 percent*  
*Landform: Flood plains*  
*Hydric soil rating: Yes*

**NrD—Nassau very channery silt loam, hilly, very rocky**

**Map Unit Setting**

*National map unit symbol: 9ph1*  
*Elevation: 600 to 1,800 feet*  
*Mean annual precipitation: 36 to 41 inches*  
*Mean annual air temperature: 45 to 48 degrees F*  
*Frost-free period: 100 to 170 days*  
*Farmland classification: Not prime farmland*

**Map Unit Composition**

*Nassau, hilly, and similar soils: 70 percent*  
*Minor components: 30 percent*  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Nassau, Hilly**

**Setting**

*Landform: Benches, ridges, till plains*  
*Landform position (two-dimensional): Backslope*  
*Landform position (three-dimensional): Side slope*  
*Down-slope shape: Convex*  
*Across-slope shape: Convex*  
*Parent material: Channery loamy till derived mainly from local slate or shale*

**Typical profile**

*H1 - 0 to 8 inches: very channery silt loam*  
*H2 - 8 to 16 inches: very channery silt loam*  
*H3 - 16 to 20 inches: unweathered bedrock*

**Properties and qualities**

*Slope: 15 to 25 percent*  
*Depth to restrictive feature: 10 to 20 inches to lithic bedrock*  
*Drainage class: Somewhat excessively drained*

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*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water supply, 0 to 60 inches:* Very low (about 1.6 inches)

### **Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 6s

*Hydrologic Soil Group:* D

*Ecological site:* F144AY033MA - Shallow Dry Till Uplands

*Hydric soil rating:* No

### **Minor Components**

#### **Rock outcrop**

*Percent of map unit:* 9 percent

*Hydric soil rating:* Unranked

#### **Manlius**

*Percent of map unit:* 8 percent

*Hydric soil rating:* No

#### **Unnamed soils**

*Percent of map unit:* 8 percent

#### **Lordstown**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

## **Ug—Udorthents, loamy**

### **Map Unit Setting**

*National map unit symbol:* 9pj1

*Elevation:* 0 to 1,640 feet

*Mean annual precipitation:* 36 to 41 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 100 to 170 days

*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Udorthents, loamy, and similar soils:* 90 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Udorthents, Loamy**

#### **Typical profile**

*H1 - 0 to 4 inches:* loam

*H2 - 4 to 70 inches:* channery loam

**Properties and qualities**

*Slope:* 0 to 8 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to high  
(0.06 to 5.95 in/hr)  
*Depth to water table:* About 36 to 72 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Available water supply, 0 to 60 inches:* Low (about 5.5 inches)

**Minor Components**

**Unnamed soils**

*Percent of map unit:* 10 percent

**Ur—Urban land**

**Map Unit Setting**

*National map unit symbol:* 9pj8  
*Mean annual precipitation:* 36 to 41 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 100 to 170 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Urban land:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Urban Land**

**Typical profile**

*H1 - 0 to 6 inches:* variable

**Minor Components**

**Unnamed soils**

*Percent of map unit:* 10 percent

**Udorthents**

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No



## **W—Water**

### **Map Unit Composition**

*Water:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

## **Wo—Wayland soils complex, non-calcareous substratum, 0 to 3 percent slopes, frequently flooded**

### **Map Unit Setting**

*National map unit symbol:* 2srgt

*Elevation:* 160 to 1,970 feet

*Mean annual precipitation:* 31 to 70 inches

*Mean annual air temperature:* 43 to 52 degrees F

*Frost-free period:* 105 to 180 days

*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Wayland and similar soils:* 60 percent

*Wayland, very poorly drained, and similar soils:* 30 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

## **Description of Wayland**

### **Setting**

*Landform:* Flood plains

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Silty and clayey alluvium derived from interbedded sedimentary rock

### **Typical profile**

*Ap - 0 to 9 inches:* silt loam

*Bg - 9 to 21 inches:* silt loam

*Cg1 - 21 to 28 inches:* silt loam

*Cg2 - 28 to 47 inches:* silt loam

*Cg3 - 47 to 54 inches:* silt loam

*Cg4 - 54 to 60 inches:* silt loam

### **Properties and qualities**

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to high (0.14 to 14.17 in/hr)

*Depth to water table:* About 0 to 6 inches

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*Frequency of flooding:* FrequentNone  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 5 percent  
*Maximum salinity:* Nonsaline (0.0 to 1.9 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Very high (about 13.0 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 5w  
*Hydrologic Soil Group:* B/D  
*Hydric soil rating:* Yes

### Description of Wayland, Very Poorly Drained

#### Setting

*Landform:* Flood plains  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Parent material:* Silty and clayey alluvium derived from interbedded sedimentary rock

#### Typical profile

*A - 0 to 9 inches:* mucky silt loam  
*Bg - 9 to 21 inches:* silt loam  
*Cg1 - 21 to 28 inches:* silt loam  
*Cg2 - 28 to 47 inches:* silt loam  
*Cg3 - 47 to 54 inches:* silt loam  
*Cg4 - 54 to 60 inches:* silt loam

#### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Very poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to high (0.14 to 14.17 in/hr)  
*Depth to water table:* About 0 inches  
*Frequency of flooding:* NoneFrequent  
*Frequency of ponding:* Frequent  
*Calcium carbonate, maximum content:* 5 percent  
*Maximum salinity:* Nonsaline (0.0 to 1.9 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Very high (about 13.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 5w  
*Hydrologic Soil Group:* B/D  
*Hydric soil rating:* Yes

### Minor Components

#### Holderton

*Percent of map unit:* 10 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear

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*Hydric soil rating:* No

# Soil Information for All Uses

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## Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

## Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

## Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

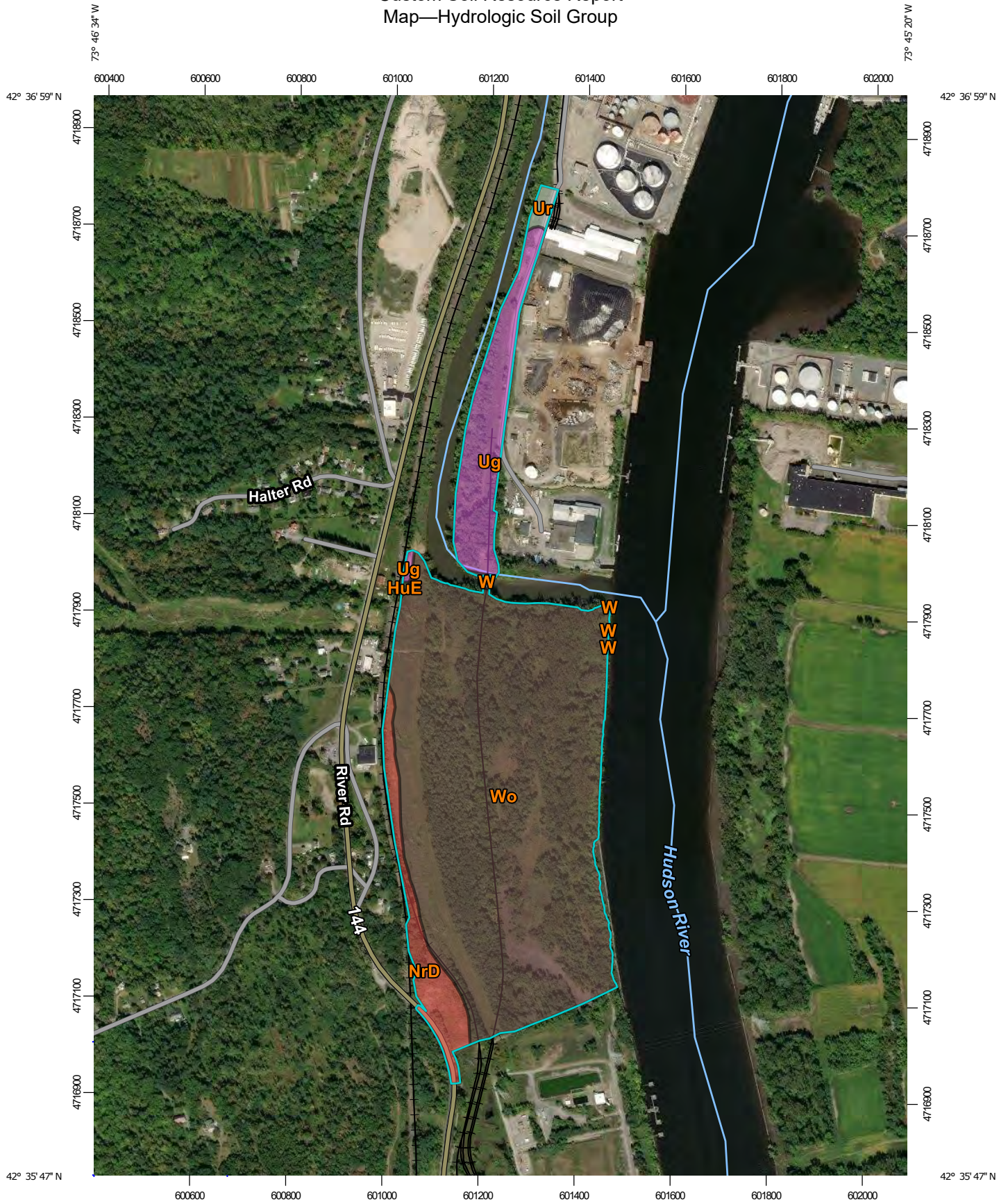
## Custom Soil Resource Report

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

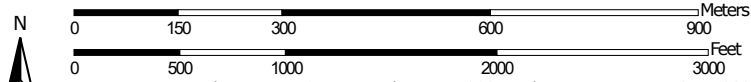
Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

# Custom Soil Resource Report Map—Hydrologic Soil Group




Map Scale: 1:10,900 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

### MAP LEGEND

**Area of Interest (AOI)**









 Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**





-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

**Soil Rating Lines**


-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

**Soil Rating Points**






-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available


**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Albany County, New York  
 Survey Area Data: Version 19, Aug 29, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 1, 2014—Sep 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



**Table—Hydrologic Soil Group**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HuE	Hudson silt loam, 25 to 45 percent slopes	C/D	0.1	0.1%
NrD	Nassau very channery silt loam, hilly, very rocky	D	7.2	6.7%
Ug	Udorthents, loamy	A	11.6	10.7%
Ur	Urban land		0.8	0.8%
W	Water		0.1	0.1%
Wo	Wayland soils complex, non-calcareous substratum, 0 to 3 percent slopes, frequently flooded	B/D	88.7	81.7%
<b>Totals for Area of Interest</b>			<b>108.6</b>	<b>100.0%</b>

**Rating Options—Hydrologic Soil Group**

*Aggregation Method: Dominant Condition*

*Component Percent Cutoff: None Specified*

*Tie-break Rule: Higher*



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United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2\\_053624](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624)

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_052290.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf)

# APPENDIX D

## MAINTENANCE INSPECTION CHECKLISTS

**Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist**

Project \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Site Status: \_\_\_\_\_  
  
 Date: \_\_\_\_\_  
 Time: \_\_\_\_\_  
  
 Inspector: \_\_\_\_\_

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
<b>1. Embankment and emergency spillway (Annual, After Major Storms)</b>		
1. Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6. Pond, toe & chimney drains clear and functioning		
7. Seeps/leaks on downstream face		
8. Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam "As-Built"		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
<b>2. Riser and principal spillway (Annual)</b>		
Type: Reinforced concrete _____ Corrugated pipe _____ Masonry _____		
1. Low flow orifice obstructed		
2. Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
3. Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
5. Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1" )		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
8. Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
<b>3. Permanent Pool (Wet Ponds) (monthly)</b>		
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
<b>4. Sediment Forebays</b>		
1. Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
<b>5. Dry Pond Areas</b>		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
<b>6. Condition of Outfalls (Annual , After Major Storms)</b>		
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4. Endwalls / Headwalls		
5. Other (specify)		
<b>7. Other (Monthly)</b>		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3. Aesthetics		
a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
<b>8. Wetland Vegetation (Annual)</b>		
1. Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
2. Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
4. Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		

**Comments:**

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**Actions to be Taken:**

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## Infiltration Trench Operation, Maintenance, and Management Inspection Checklist

Project:  
 Location:  
 Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
<b>1. Debris Cleanout (Monthly)</b>		
Trench surface clear of debris		
Inflow pipes clear of debris		
Overflow spillway clear of debris		
Inlet area clear of debris		
<b>2. Sediment Traps or Forebays (Annual)</b>		
Obviously trapping sediment		
Greater than 50% of storage volume remaining		
<b>3. Dewatering (Monthly)</b>		
Trench dewaterers between storms		
<b>4. Sediment Cleanout of Trench (Annual)</b>		
No evidence of sedimentation in trench		
Sediment accumulation doesn't yet require cleanout		
<b>5. Inlets (Annual)</b>		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Good condition		
No evidence of erosion		
<b>6. Outlet/Overflow Spillway (Annual)</b>		
Good condition, no need for repair		
No evidence of erosion		
<b>7. Aggregate Repairs (Annual)</b>		
Surface of aggregate clean		
Top layer of stone does not need replacement		
Trench does not need rehabilitation		

**Comments:**

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**Actions to be Taken:**

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## Sand/Organic Filter Operation, Maintenance and Management Inspection Checklist

Project:  
Location:  
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
<b>1. Debris Cleanout (Monthly)</b>		
Contributing areas clean of debris		
Filtration facility clean of debris		
Inlet and outlets clear of debris		
<b>2. Oil and Grease (Monthly)</b>		
No evidence of filter surface clogging		
Activities in drainage area minimize oil and grease entry		
<b>3. Vegetation (Monthly)</b>		
Contributing drainage area stabilized		
No evidence of erosion		
Area mowed and clipping removed		
<b>4. Water Retention Where Required (Monthly)</b>		
Water holding chambers at normal pool		
No evidence of leakage		
<b>5. Sediment Deposition (Annual)</b>		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Filter chamber free of sediments		
Sedimentation chamber not more than half full of sediments		
<b>6. Structural Components (Annual)</b>		
No evidence of structural deterioration		
Any grates are in good condition		
No evidence of spalling or cracking of structural parts		
<b>7. Outlet/Overflow Spillway (Annual)</b>		
Good condition, no need for repairs		
No evidence of erosion (if draining into a natural channel)		
<b>8. Overall Function of Facility (Annual)</b>		
Evidence of flow bypassing facility		
No noticeable odors outside of facility		

**Comments:**

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**Actions to be Taken:**

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## Open Channel Operation, Maintenance, and Management Inspection Checklist

Project:  
 Location:  
 Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
<b>1. Debris Cleanout (Monthly)</b>		
Contributing areas clean of debris		
<b>2. Check Dams or Energy Dissipators (Annual, After Major Storms)</b>		
No evidence of flow going around structures		
No evidence of erosion at downstream toe		
Soil permeability		
Groundwater / bedrock		
<b>3. Vegetation (Monthly)</b>		
Mowing done when needed		
Minimum mowing depth not exceeded		
No evidence of erosion		
Fertilized per specification		
<b>4. Dewatering (Monthly)</b>		
Dewaterers between storms		

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
<b>5. Sediment deposition (Annual)</b>		
Clean of sediment		
<b>6. Outlet/Overflow Spillway (Annual)</b>		
Good condition, no need for repairs		
No evidence of erosion		

**Comments:**

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**Actions to be Taken:**

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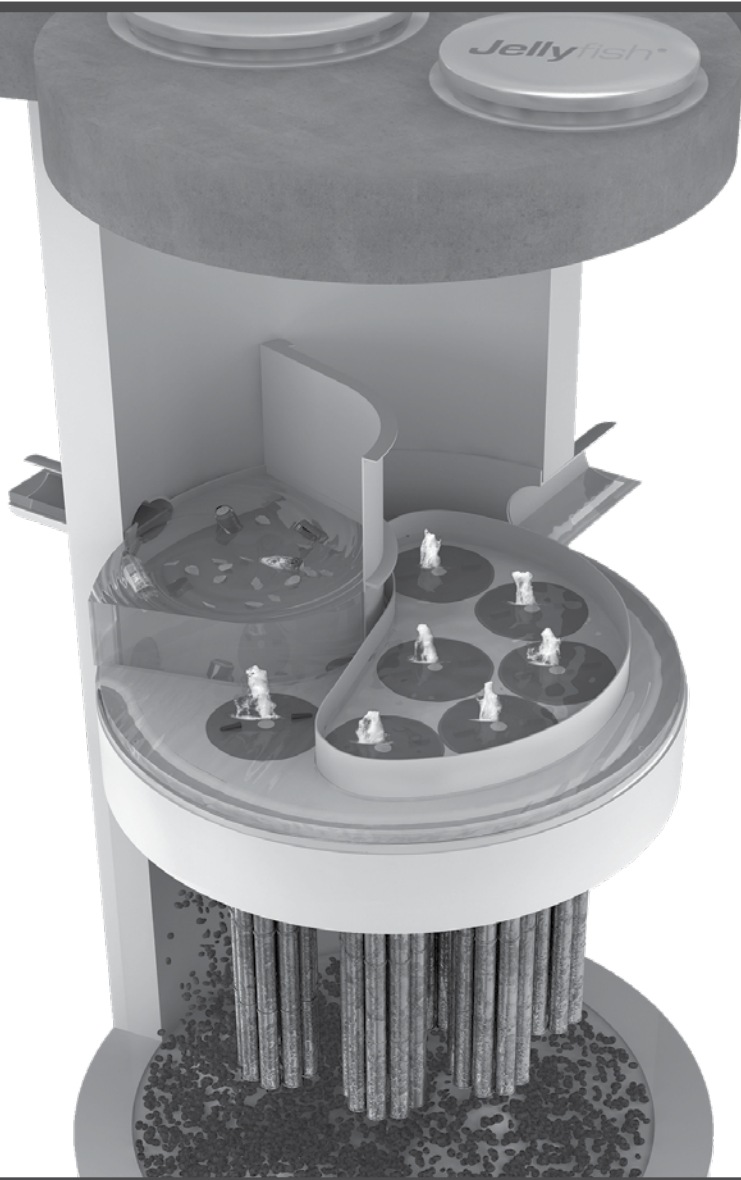
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## Jellyfish<sup>®</sup> Filter Maintenance Guide





## **JELLYFISH® FILTER INSPECTION & MAINTENANCE GUIDE**

Jellyfish units are often just one of many structures in a more comprehensive stormwater drainage and treatment system.

In order for maintenance of the Jellyfish filter to be successful, it is imperative that all other components be properly maintained. The maintenance and repair of upstream facilities should be carried out prior to Jellyfish maintenance activities.

In addition to considering upstream facilities, it is also important to correct any problems identified in the drainage area. Drainage area concerns may include: erosion problems, heavy oil loading, and discharges of inappropriate materials.

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Inspection and Maintenance Overview .....	3
Inspection Procedure.....	3
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Cartridge Assembly & Cleaning.....	5
Inspection Process .....	7



## 1.0 Inspection and Maintenance Overview

The primary purpose of the Jellyfish® Filter is to capture and remove pollutants from stormwater runoff. As with any filtration system, these pollutants must be removed to maintain the filter's maximum treatment performance. Regular inspection and maintenance are required to insure proper functioning of the system.

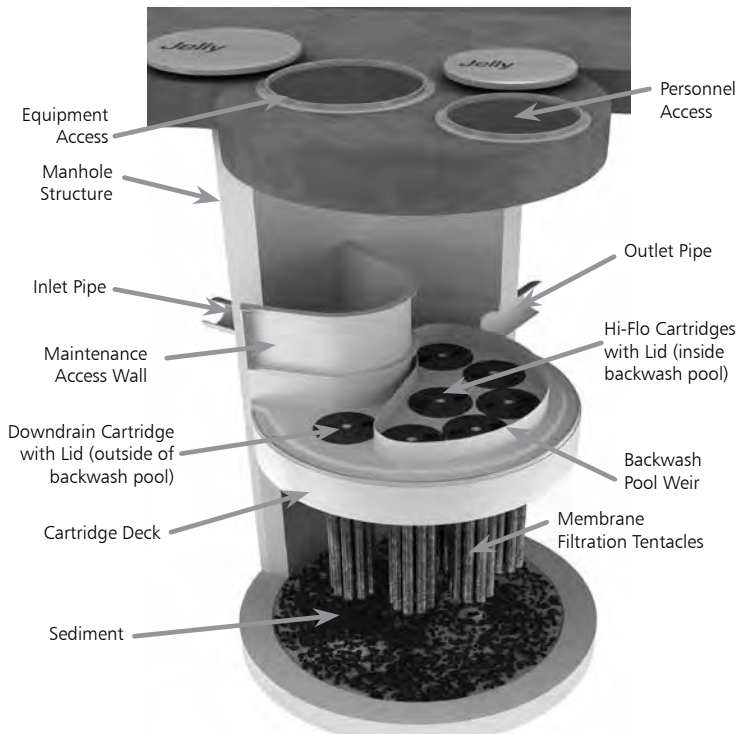
Maintenance frequencies and requirements are site specific and vary depending on pollutant loading. Additional maintenance activities may be required in the event of non-storm event runoff, such as base-flow or seasonal flow, an upstream chemical spill or due to excessive sediment loading from site erosion or extreme runoff events. It is a good practice to inspect the system after major storm events.

Inspection activities are typically conducted from surface observations and include:

- Observe if standing water is present
- Observe if there is any physical damage to the deck or cartridge lids
- Observe the amount of debris in the Maintenance Access Wall (MAW) or inlet bay for vault systems

Maintenance activities include:

- Removal of oil, floatable trash and debris
- Removal of collected sediments
- Rinsing and re-installing the filter cartridges
- Replace filter cartridge tentacles, as needed



Note: Separator Skirt not shown

## 2.0 Inspection Timing

Inspection of the Jellyfish Filter is key in determining the maintenance requirements for, and to develop a history of, the site's pollutant loading characteristics. In general, inspections should be performed at the times indicated below; *or per the approved project stormwater quality documents (if applicable), whichever is more frequent.*

1. A minimum of quarterly inspections during the first year of operation to assess the sediment and floatable pollutant accumulation, and to ensure proper functioning of the system.
2. Inspection frequency in subsequent years is based on the inspection and maintenance plan developed in the first year of operation. Minimum frequency should be once per year.
3. Inspection is recommended after each major storm event.
4. Inspection is required immediately after an upstream oil, fuel or other chemical spill.

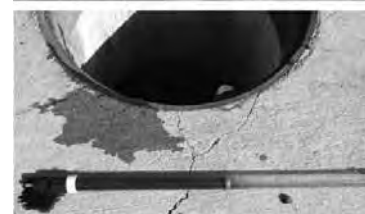
## 3.0 Inspection Procedure

The following procedure is recommended when performing inspections:

1. Provide traffic control measures as necessary.
2. Inspect the MAW or inlet bay for floatable pollutants such as trash, debris, and oil sheen.
3. Measure oil and sediment depth in several locations, by lowering a sediment probe until contact is made with the floor of the structure. Record sediment depth, and presences of any oil layers.
4. Inspect cartridge lids. Missing or damaged cartridge lids to be replaced.
5. Inspect the MAW (where appropriate), cartridge deck and receptacles, and backwash pool weir, for damaged or broken components.

### 3.1 Dry weather inspections

- Inspect the cartridge deck for standing water, and/or sediment on the deck.
- No standing water under normal operating conditions.
- Standing water inside the backwash pool, but not outside the backwash pool indicates, that the filter cartridges need to be rinsed.



Inspection Utilizing Sediment Probe

- Standing water outside the backwash pool is not anticipated and may indicate a backwater condition caused by high water elevation in the receiving water body, or possibly a blockage in downstream infrastructure.
- Any appreciable sediment ( $\geq 1/16''$ ) accumulated on the deck surface should be removed.

### 3.2 Wet weather inspections

- Observe the rate and movement of water in the unit. Note the depth of water above deck elevation within the MAW or inlet bay.
- Less than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges (i.e. cartridges located outside the backwash pool).
- Greater than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges and each of the hi-flo cartridges (i.e. cartridges located inside the backwash pool), and water should be overflowing the backwash pool weir.
- 18 inches or greater and relatively little flow is exiting the cartridge lids and outlet pipe, this condition indicates that the filter cartridges need to be rinsed.

## 4.0 Maintenance Requirements

Required maintenance for the Jellyfish Filter is based upon results of the most recent inspection, historical maintenance records, or the site specific water quality management plan; whichever is more frequent. In general, maintenance requires some combination of the following:

1. Sediment removal for depths reaching 12 inches or greater, or within 3 years of the most recent sediment cleaning, whichever occurs sooner.
2. Floatable trash, debris, and oil removal.
3. Deck cleaned and free from sediment.
4. Filter cartridges rinsed and re-installed as required by the most recent inspection results, or within 12 months of the most recent filter rinsing, whichever occurs sooner.
5. Replace tentacles if rinsing does not restore adequate hydraulic capacity, remove accumulated sediment, or if damaged or missing. It is recommended that tentacles should remain in service no longer than 5 years before replacement.
6. Damaged or missing cartridge deck components must be repaired or replaced as indicated by results of the most recent inspection.
7. The unit must be cleaned out and filter cartridges inspected immediately after an upstream oil, fuel, or chemical spill. Filter cartridge tentacles should be replaced if damaged or compromised by the spill.

## 5.0 Maintenance Procedure

The following procedures are recommended when maintaining the Jellyfish Filter:

1. Provide traffic control measures as necessary.
2. Open all covers and hatches. Use ventilation equipment as required, according to confined space entry procedures.  
**Caution: Dropping objects onto the cartridge deck may cause damage.**

3. Perform Inspection Procedure prior to maintenance activity.
4. To access the cartridge deck for filter cartridge service, descend into the structure and step directly onto the deck. Caution: Do not step onto the maintenance access wall (MAW) or backwash pool weir, as damage may result. Note that the cartridge deck may be slippery.
5. Maximum weight of maintenance crew and equipment on the cartridge deck not to exceed 450 lbs.

### 5.1 Filter Cartridge Removal

1. Remove a cartridge lid.
2. Remove cartridges from the deck using the lifting loops in the cartridge head plate. Rope or a lifting device (available from Contech) should be used. **Caution: Should a snag occur, do not force the cartridge upward as damage to the tentacles may result. Wet cartridges typically weigh between 100 and 125 lbs.**
3. Replace and secure the cartridge lid on the exposed empty receptacle as a safety precaution. Contech does not recommend exposing more than one empty cartridge receptacle at a time.

### 5.2 Filter Cartridge Rinsing

1. Remove all 11 tentacles from the cartridge head plate. Take care not to lose or damage the O-ring seal as well as the plastic threaded nut and connector.



Cartridge Removal & Lifting Device



2. Position tentacles in a container (or over the MAW), with the threaded connector (open end) facing down, so rinse water is flushed through the membrane and captured in the container.
3. Using the Jellyfish rinse tool (available from Contech) or a low-pressure garden hose sprayer, direct water spray onto the tentacle membrane, sweeping from top to bottom along the length of the tentacle. Rinse until all sediment is removed from the membrane. **Caution: Do not use a high pressure sprayer or focused stream of water on the membrane. Excessive water pressure may damage the membrane.**

4. Collected rinse water is typically removed by vacuum hose.
5. Reassemble cartridges as detailed later in this document. Reuse O-rings and nuts, ensuring proper placement on each tentacle.

### 5.3 Sediment and Floatables Extraction

1. Perform vacuum cleaning of the Jellyfish Filter only after filter cartridges have been removed from the system. Access the lower chamber for vacuum cleaning only through the maintenance access wall (MAW) opening. Be careful not to damage the flexible plastic separator skirt that is attached to the underside of the deck on manhole systems. Do not lower the vacuum wand through a cartridge receptacle, as damage to the receptacle will result.
2. Vacuum floatable trash, debris, and oil, from the MAW opening or inlet bay. Alternatively, floatable solids may be removed by a net or skimmer.



Vacuuming Sump Through MAW

3. Pressure wash cartridge deck and receptacles to remove all sediment and debris. Sediment should be rinsed into the sump area. Take care not to flush rinse water into the outlet pipe.
4. Remove water from the sump area. Vacuum or pump equipment should only be introduced through the MAW or inlet bay.
5. Remove the sediment from the bottom of the unit through the MAW or inlet bay opening.



Vacuuming Sump Through MAW

6. For larger diameter Jellyfish Filter manholes ( $\geq 8$ -ft) and some vaults complete sediment removal may be facilitated by removing a cartridge lid from an empty receptacle and inserting a jetting wand (not a vacuum wand) through the receptacle. Use the sprayer to rinse loosened sediment toward the vacuum hose in the MAW opening, being careful not to damage the receptacle.

### 5.4 Filter Cartridge Reinstallation and Replacement

1. Cartridges should be installed after the deck has been cleaned. It is important that the receptacle surfaces be free from grit and debris.
2. Remove cartridge lid from deck and carefully lower the filter cartridge into the receptacle until head plate gasket is seated squarely in receptacle. **Caution: Do not force the cartridge downward; damage may occur.**
3. Replace the cartridge lid and check to see that both male threads are properly seated before rotating approximately 1/3 of a full rotation until firmly seated. Use of an approved rim gasket lubricant may facilitate installation. See next page for additional details.
4. If rinsing is ineffective in removing sediment from the tentacles, or if tentacles are damaged, provisions must be made to replace the spent or damaged tentacles with new tentacles. Contact Contech to order replacement tentacles.

### 5.5 Chemical Spills

**Caution: If a chemical spill has been captured, do not attempt maintenance. Immediately contact the local hazard response agency and contact Contech.**

### 5.6 Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads. Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.

# Jellyfish Filter Components & Filter Cartridge Assembly and Installation

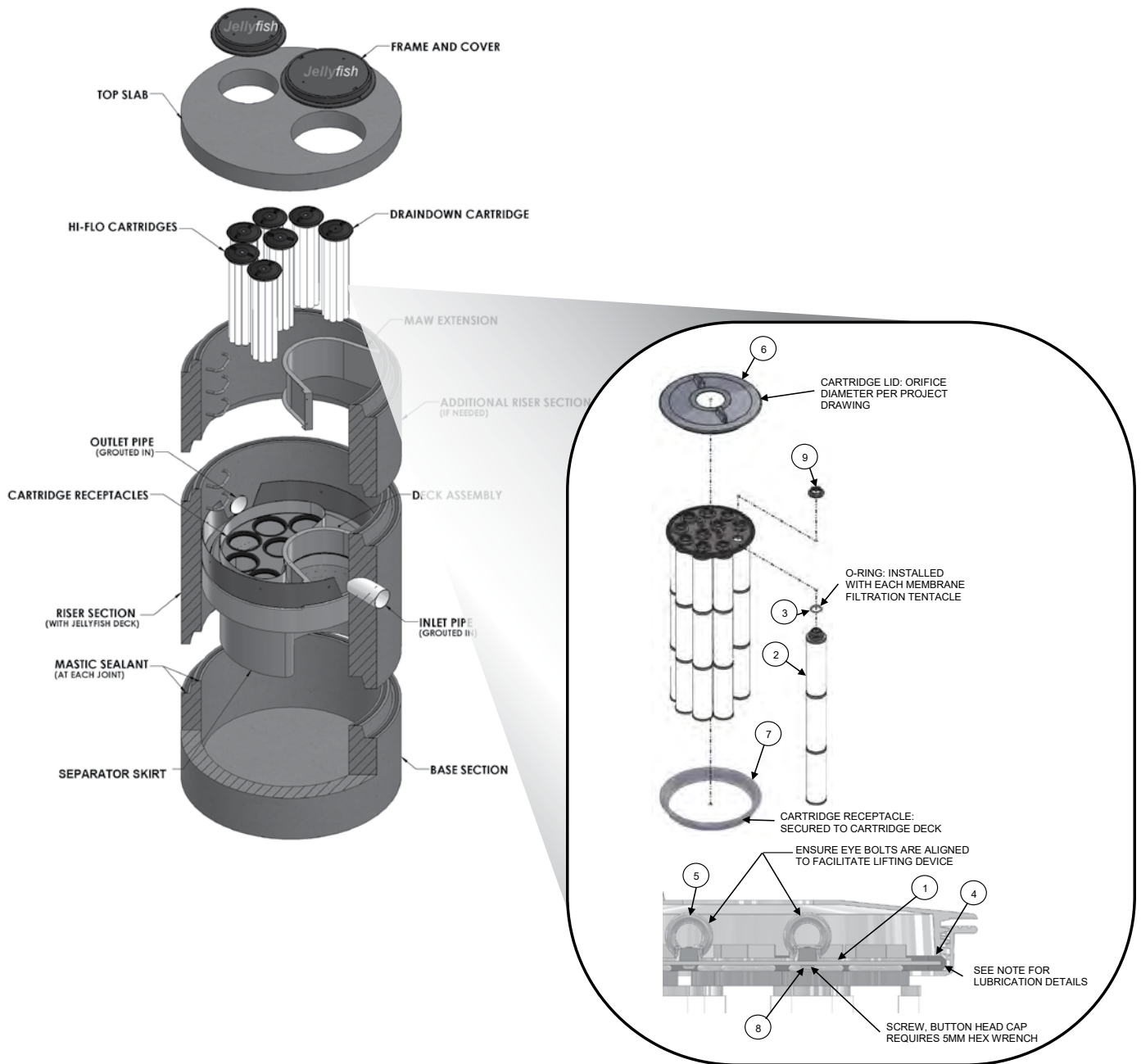


TABLE 1: BOM

ITEM NO.	DESCRIPTION
1	JF HEAD PLATE
2	JF TENTACLE
3	JF O-RING
4	JF HEAD PLATE GASKET
5	JF CARTRIDGE EYELET
6	JF 14IN COVER
7	JF RECEPTACLE
8	BUTTON HEAD CAP SCREW M6X14MM SS
9	JF CARTRIDGE NUT

TABLE 2: APPROVED GASKET LUBRICANTS

PART NO.	MFR	DESCRIPTION
78713	LA-CO	LUBRI-JOINT
40501	HERCULES	DUCK BUTTER
30600	OATEY	PIPE LUBRICANT
PSLUBXL1Q	PROSELECT	PIPE JOINT LUBRICANT

## NOTES:

### Head Plate Gasket Installation:

Install Head Plate Gasket (Item 4) onto the Head Plate (Item 1) and liberally apply a lubricant from Table 2: Approved Gasket Lubricants onto the gasket where it contacts the Receptacle (Item 7) and Cartridge Lid (Item 6). Follow Lubricant manufacturer's instructions.

### Lid Assembly:

Rotate Cartridge Lid counter-clockwise until both male threads drop down and properly seat. Then rotate Cartridge Lid clockwise approximately one-third of a full rotation until Cartridge Lid is firmly secured, creating a watertight seal.

## Jellyfish Filter Inspection and Maintenance Log

Owner:		Jellyfish Model No:	
Location:		GPS Coordinates:	
Land Use:	Commercial:	Industrial:	Service Station:
	Roadway/Highway:	Airport:	Residential:

Date/Time:						
Inspector:						
Maintenance Contractor:						
Visible Oil Present: (Y/N)						
Oil Quantity Removed:						
Floatable Debris Present: (Y/N)						
Floatable Debris Removed: (Y/N)						
Water Depth in Backwash Pool						
Draindown Cartridges externally rinsed and recommissioned: (Y/N)						
New tentacles put on Draindown Cartridges: (Y/N)						
Hi-Flo Cartridges externally rinsed and recommissioned: (Y/N)						
New tentacles put on Hi-Flo Cartridges: (Y/N)						
Sediment Depth Measured: (Y/N)						
Sediment Depth (inches or mm):						
Sediment Removed: (Y/N)						
Cartridge Lids intact: (Y/N)						
Observed Damage:						
Comments:						





#### Support

- Drawings and specifications are available at [www.conteches.com/jellyfish](http://www.conteches.com/jellyfish).
- Site-specific design support is available from Contech Engineered Solutions.
- Find a Certified Maintenance Provider at [www.conteches.com/ccmp](http://www.conteches.com/ccmp)

**Jellyfish**<sup>®</sup>

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# APPENDIX E

SPDES PERMIT



Department of  
Environmental  
Conservation

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT  
FOR STORMWATER DISCHARGES

From

**CONSTRUCTION ACTIVITY**

Permit No. GP- 0-20-001

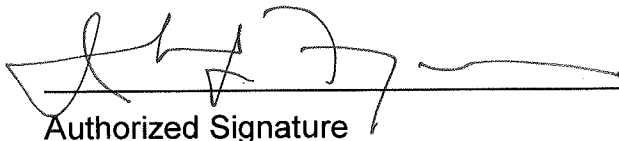
Issued Pursuant to Article 17, Titles 7, 8 and Article 70  
of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator



Authorized Signature

1-23-20

Date

Address: NYS DEC  
Division of Environmental Permits  
625 Broadway, 4th Floor  
Albany, N.Y. 12233-1750



## PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System (“NPDES”)* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of “*construction activity*”, as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

**\*Note: The italicized words/phrases within this permit are defined in Appendix A.**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM  
CONSTRUCTION ACTIVITIES**

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## Part 1. PERMIT COVERAGE AND LIMITATIONS

### A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

### B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharges* authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge of pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

- a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:
- (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*;
  - (ii) Control stormwater *discharges*, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;
  - (iii) *Minimize* the amount of soil exposed during *construction activity*;
  - (iv) *Minimize* the disturbance of *steep slopes*;
  - (v) *Minimize* sediment *discharges* from the site;
  - (vi) Provide and maintain *natural buffers* around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharges*, unless *infeasible*;
  - (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;
  - (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and
  - (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.
- b. **Soil Stabilization.** In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

- c. **Dewatering.** *Discharges* from *dewatering* activities, including *discharges* from *dewatering* of trenches and excavations, must be managed by appropriate control measures.
  
- d. **Pollution Prevention Measures.** Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:
  - (i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;
  
  - (ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and
  
  - (iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.
  
- e. **Prohibited Discharges.** The following *discharges* are prohibited:
  - (i) Wastewater from washout of concrete;
  
  - (ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

- (iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;
  - (iv) Soaps or solvents used in vehicle and equipment washing; and
  - (v) Toxic or hazardous substances from a spill or other release.
- f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

### **C. Post-construction Stormwater Management Practice Requirements**

1. The *owner or operator of a construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual (“Design Manual”), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices (“SMPs”) are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. The *owner or operator of a construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

#### **a. Sizing Criteria for New Development**

- (i) Runoff Reduction Volume (“RRv”): Reduce the total Water Quality Volume (“WQv”) by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.
- (ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

**In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual.**

The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (“Cpv”): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
  - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
  - (2) The site discharges directly to tidal waters, or fifth order or larger streams.
  
- (iv) *Overbank* Flood Control Criteria (“Qp”): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.
  
- (v) Extreme Flood Control Criteria (“Qf”): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.

**b. Sizing Criteria for New Development in Enhanced Phosphorus Removal Watershed**

- (i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be



calculated in accordance with the criteria in Section 10.3 of the Design Manual.

- (ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

**In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual.** The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
  - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
  - (2) The site *discharges* directly to tidal waters, or fifth order or larger streams.
- (iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.

### c. Sizing Criteria for Redevelopment Activity

- (i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.
- (1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or
  - (2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or
  - (3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or
  - (4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

- (ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

**d. Sizing Criteria for Combination of Redevelopment Activity and New Development**

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

**D. Maintaining Water Quality**

The Department expects that compliance with the conditions of this permit will control *discharges* necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharges* authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

## **E. Eligibility Under This General Permit**

1. This permit may authorize all *discharges* of stormwater from *construction activity to surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharges*; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.
3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: “Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned”; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharges* from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.
4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

## **F. Activities Which Are Ineligible for Coverage Under This General Permit**

All of the following are **not** authorized by this permit:

1. *Discharges after construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;
3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;
4. *Construction activities or discharges from construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

*operator* has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects:
  - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
  - b. Which are undertaken on land with no existing *impervious cover*; and
  - c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase “E” or “F” (regardless of the map unit name), or a combination of the three designations.
7. *Construction activities* for linear transportation projects and linear utility projects:
  - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
  - b. Which are undertaken on land with no existing *impervious cover*; and
  - c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase “D” (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase “E” or “F” (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:
- a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.
    - 1-5 acres of disturbance - 20 feet
    - 5-20 acres of disturbance - 50 feet
    - 20+ acres of disturbance - 100 feet, or
  - b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
    - (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
    - (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
    - (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
    - (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or
  - c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

- (i) No Affect
- (ii) No Adverse Affect
- (iii) Executed Memorandum of Agreement, or

d. Documentation that:

- (i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.
9. *Discharges from construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

## Part II. PERMIT COVERAGE

### A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.
2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.
3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of Owner or Operator) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

## B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (<http://www.dec.ny.gov/>). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

**NOTICE OF INTENT  
NYS DEC, Bureau of Water Permits  
625 Broadway, 4<sup>th</sup> Floor  
Albany, New York 12233-3505**

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.
3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

## C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
  - a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (<http://www.dec.ny.gov/>) for more information,
  - b. where required, all necessary Department permits subject to the *Uniform Procedures Act* ("UPA") (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain UPA permits



must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

- c. the final SWPPP has been prepared, and
  - d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:
- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
    - (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or
    - (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;
    - (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
  - (i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed “MS4 SWPPP Acceptance” form, or
  - (ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed “MS4 SWPPP Acceptance” form.
4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

#### **D. General Requirements For Owners or Operators With Permit Coverage**

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (“NOT”) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.
2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor’s or subcontractor’s certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.
3. The *owner or operator of a construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

- use control MS4, the regulated, traditional land use control MS4 (provided the regulated, traditional land use control MS4 is not the owner or operator of the construction activity). At a minimum, the owner or operator must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:*
- a. The *owner or operator* shall have a *qualified inspector* conduct **at least two** (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
  - b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
  - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
  - d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.
  - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..
  5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.
  6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

*regulated, traditional land use control MS4* in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

#### **E. Permit Coverage for Discharges Authorized Under GP-0-15-002**

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of a *construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

#### **F. Change of Owner or Operator**

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4*, the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.
2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.
3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

*operator* was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

### Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

#### A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.
2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:
  - a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

- b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;
  - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority; and
  - d. to document the final construction conditions.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

## **B. Required SWPPP Contents**

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
  - a. Background information about the scope of the project, including the location, type and size of project

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge(s)*;
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;
- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection



schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

- j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;
  - k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and
  - l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

The post-construction stormwater management practice component of the SWPPP shall include the following:

- a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
- c. A Stormwater Modeling and Analysis Report that includes:
  - (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;
  - (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;
  - (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;
  - (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;
  - (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and
  - (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;
- d. Soil testing results and locations (test pits, borings);
- e. Infiltration test results, when required; and
- f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria*, Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

### **C. Required SWPPP Components by Project Type**

Unless otherwise notified by the Department, *owners or operators of construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators of the construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

## **Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS**

### **A. General Construction Site Inspection and Maintenance Requirements**

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

### **B. Contractor Maintenance Inspection Requirements**

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.
3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

### C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
  - Certified Professional in Erosion and Sediment Control (CPESC),
  - New York State Erosion and Sediment Control Certificate Program holder
  - Registered Landscape Architect, or
  - someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].
1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:
    - a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
  - c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
  - d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:
- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.
  - b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
  - c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the “*Final Stabilization*” and “*Post-Construction Stormwater Management Practice*” certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.
  - e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.
  4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

- a. Date and time of inspection;
- b. Name and title of person(s) performing inspection;
- c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
- d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
- f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;
- g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;
- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);
- k. Identification and status of all corrective actions that were required by previous inspection; and

- I. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

## **Part V. TERMINATION OF PERMIT COVERAGE**

### **A. Termination of Permit Coverage**

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:
  - a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;



- b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
      - c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.
      - d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.
3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the “*Final Stabilization*” and “Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.
4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the “MS4 Acceptance” statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) required in Part V.A.3. of this permit.
5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:
  - a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

## **Part VI. REPORTING AND RETENTION RECORDS**

### **A. Record Retention**

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

### **B. Addresses**

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

## **Part VII. STANDARD PERMIT CONDITIONS**

### **A. Duty to Comply**

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

#### **B. Continuation of the Expired General Permit**

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

#### **C. Enforcement**

Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

#### **D. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

### **E. Duty to Mitigate**

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

### **F. Duty to Provide Information**

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

### **G. Other Information**

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

### **H. Signatory Requirements**

1. All NOIs and NOTs shall be signed as follows:
  - a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

- (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
    - (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
  - b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
  - c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
    - (i) the chief executive officer of the agency, or
    - (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

- c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

## **I. Property Rights**

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

## **J. Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

## **K. Requirement to Obtain Coverage Under an Alternative Permit**

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge(s)*, the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

#### **L. Proper Operation and Maintenance**

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

#### **M. Inspection and Entry**

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner's or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.
4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

#### **N. Permit Actions**

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

#### **O. Definitions**

Definitions of key terms are included in Appendix A of this permit.

#### **P. Re-Opener Clause**

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

#### **Q. Penalties for Falsification of Forms and Reports**

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.



**R. Other Permits**

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

## **APPENDIX A – Acronyms and Definitions**

### **Acronyms**

APO – Agency Preservation Officer  
BMP – Best Management Practice  
CPESC – Certified Professional in Erosion and Sediment Control  
Cpv – Channel Protection Volume  
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)  
DOW – Division of Water  
EAF – Environmental Assessment Form  
ECL - Environmental Conservation Law  
EPA – U. S. Environmental Protection Agency  
HSG – Hydrologic Soil Group  
MS4 – Municipal Separate Storm Sewer System  
NOI – Notice of Intent  
NOT – Notice of Termination  
NPDES – National Pollutant Discharge Elimination System  
OPRHP – Office of Parks, Recreation and Historic Places  
Qf – Extreme Flood  
Qp – Overbank Flood  
RRv – Runoff Reduction Volume  
RWE – Regional Water Engineer  
SEQR – State Environmental Quality Review  
SEQRA - State Environmental Quality Review Act  
SHPA – State Historic Preservation Act  
SPDES – State Pollutant Discharge Elimination System  
SWPPP – Stormwater Pollution Prevention Plan  
TMDL – Total Maximum Daily Load  
UPA – Uniform Procedures Act  
USDA – United States Department of Agriculture  
WQv – Water Quality Volume

## Definitions

All definitions in this section are solely for the purposes of this permit.

**Agricultural Building** – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

**Agricultural Property** – means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

**Alter Hydrology from Pre to Post-Development Conditions** - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

**Combined Sewer** - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

**Commence (Commencement of) Construction Activities** - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for “*Construction Activity(ies)*” also.

**Construction Activity(ies)** - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

**Construction Site** – means the land area where *construction activity(ies)* will occur. See definition for “*Commence (Commencement of) Construction Activities*” and “*Larger Common Plan of Development or Sale*” also.

**Dewatering** – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

**Direct Discharge (to a specific surface waterbody)** - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

**Discharge(s)** - means any addition of any pollutant to waters of the State through an outlet or *point source*.

**Embankment** – means an earthen or rock slope that supports a road/highway.

**Endangered or Threatened Species** – see 6 NYCRR Part 182 of the Department’s rules and regulations for definition of terms and requirements.

**Environmental Conservation Law (ECL)** - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

**Equivalent (Equivalence)** – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

**Final Stabilization** - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

**General SPDES permit** - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

**Groundwater(s)** - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

**Historic Property** – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

**Impervious Area (Cover)** - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

**Infeasible** – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

**Larger Common Plan of Development or Sale** - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

**Minimize** – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

**Municipal Separate Storm Sewer (MS4)** - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a *combined sewer*; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

**National Pollutant Discharge Elimination System (NPDES)** - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

**Natural Buffer** –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

**New Development** – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

**New York State Erosion and Sediment Control Certificate Program** – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

**NOI Acknowledgment Letter** - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

**Nonpoint Source** - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

**Overbank** –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

**Owner or Operator** - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

**Performance Criteria** – means the design criteria listed under the “Required Elements” sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf ) in Part I.C.2. of the permit.

**Point Source** - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

**Pollutant** - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

**Qualified Inspector** - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

**Qualified Professional** - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

**Redevelopment Activity(ies)** – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

**Regulated, Traditional Land Use Control MS4** - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

**Routine Maintenance Activity** - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

**Site limitations** – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

**Sizing Criteria** – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank Flood* (Qp), and *Extreme Flood* (Qf).

**State Pollutant Discharge Elimination System (SPDES)** - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.



**Steep Slope** – means land area designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

**Streambank** – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

**Stormwater Pollution Prevention Plan (SWPPP)** – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

**Surface Waters of the State** - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

**Temporarily Ceased** – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

**Temporary Stabilization** - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

**Total Maximum Daily Loads (TMDLs)** - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint sources*. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint sources*, and a margin of safety (MOS).

**Trained Contractor** - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

**Uniform Procedures Act (UPA) Permit** - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

**Water Quality Standard** - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

## APPENDIX B – Required SWPPP Components by Project Type

**Table 1**  
**Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls**

<p><b>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</b></p> <ul style="list-style-type: none"><li>• Single family home <u>not</u> located in one of the watersheds listed in Appendix C or <u>not directly discharging</u> to one of the 303(d) segments listed in Appendix E</li><li>• Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E</li><li>• Construction of a barn or other <i>agricultural building</i>, silo, stock yard or pen.</li></ul>
<p><b>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</b></p> <p>All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.</p>
<p><b>The following construction activities that involve soil disturbances of one (1) or more acres of land:</b></p> <ul style="list-style-type: none"><li>• Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains</li><li>• Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects</li><li>• Pond construction</li><li>• Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover</li><li>• Cross-country ski trails and walking/hiking trails</li><li>• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;</li><li>• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.</li><li>• Slope stabilization projects</li><li>• Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics</li></ul>

**Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS**

**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State”, excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

**Table 2**  
**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES**  
**POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

The following construction activities that involve soil disturbances of one (1) or more acres of land:

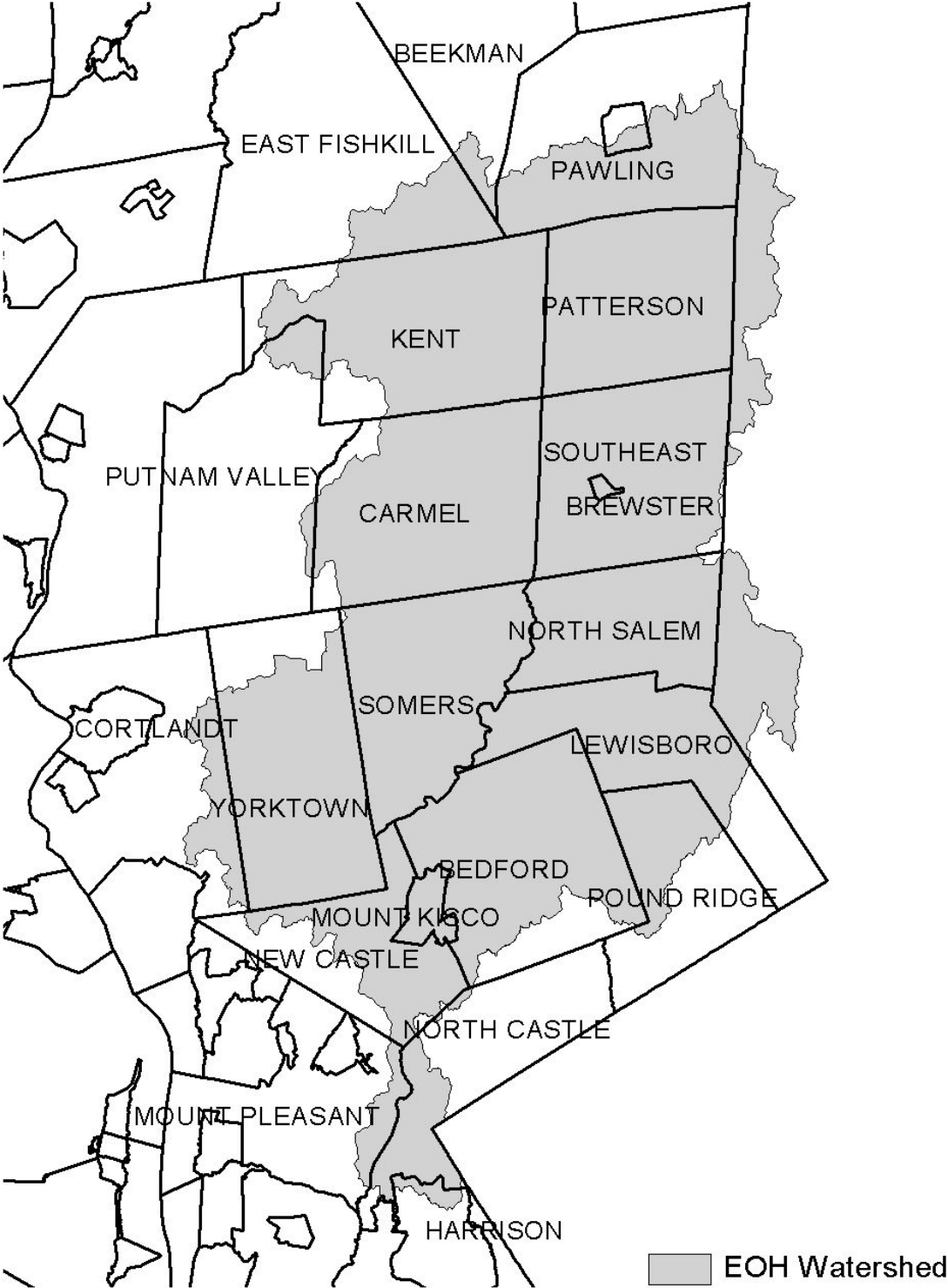
- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

## APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

**Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).**

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed - Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

**Figure 1 - New York City Watershed East of the Hudson**





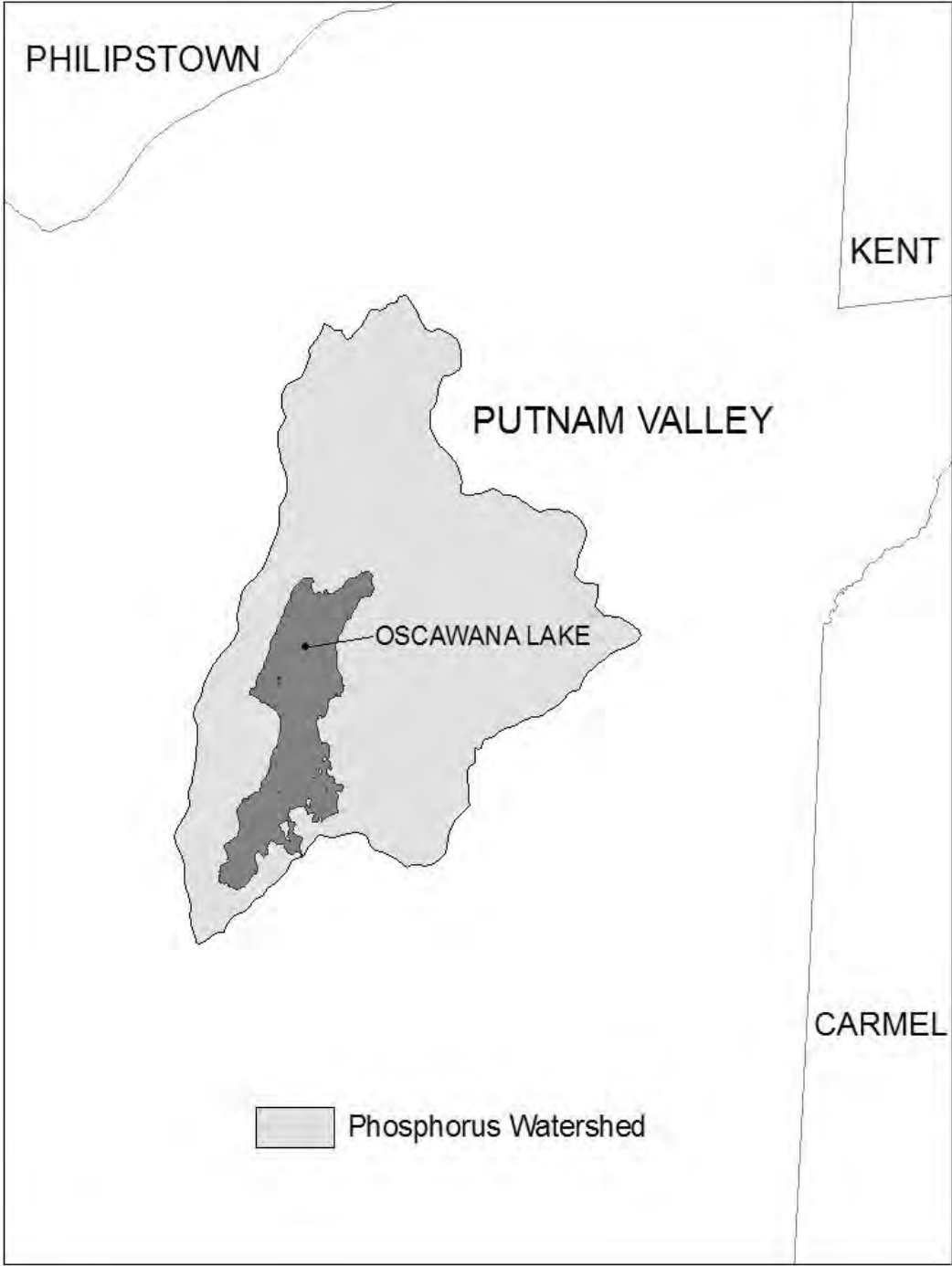
**Figure 2 - Onondaga Lake Watershed**



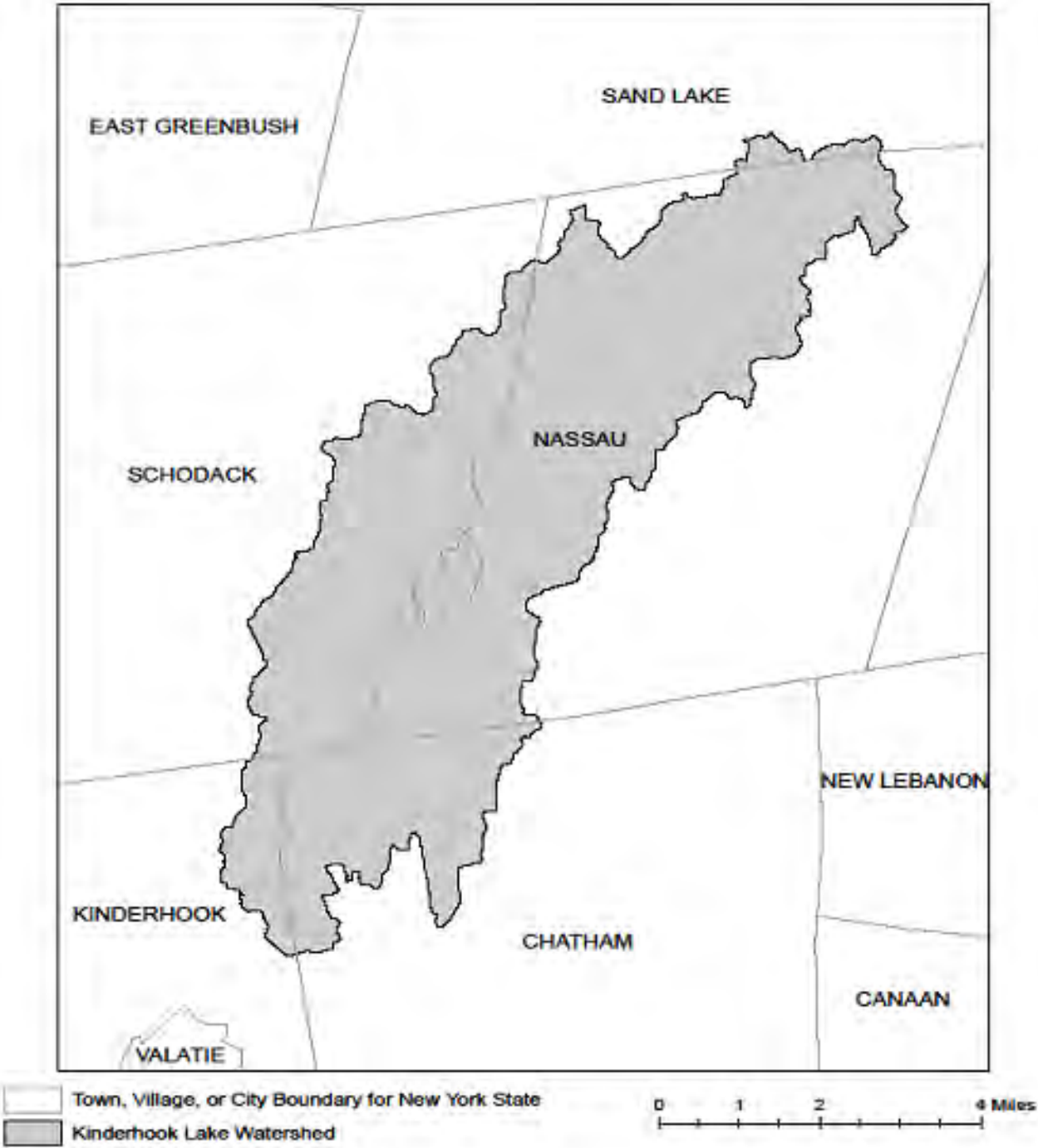
**Figure 3 - Greenwood Lake Watershed**



**Figure 4 - Oscawana Lake Watershed**



**Figure 5 - Kinderhook Lake Watershed**



## **APPENDIX D – Watersheds with Lower Disturbance Threshold**

**Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.**

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

## APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients



### 303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

## APPENDIX F – List of NYS DEC Regional Offices

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, Po Box 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD WARRENSBURG, NY 12885-1172 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

# APPENDIX F

NEW YORK STATE HISTORIC PRESERVATION OFFICE  
(SHPO) "NO EFFECT LETTER"



**Parks, Recreation,  
and Historic Preservation**

**ANDREW M. CUOMO**  
Governor

**ERIK KULLESEID**  
Commissioner

September 13, 2019

Mr. Andrew Dangler  
USACE Update Regulatory Field Office  
1 Buffington Street  
Building 10, 3rd Floor North  
Watervliet, NY 12819

Re: USACE  
Albany Port District Commission Industrial Park Project  
City of Albany, Town of Bethlehem, Albany County, NY  
18PR07273

Dear Mr. Dangler:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the visual simulation and the August 6, 2019 McFarland Johnson letter noting that the proposed building height has changed and could reach 85 feet in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources.

The visual simulation of the proposed building shows that the roof will be visible from the National Register eligible Papscaanee Island Historic District. As noted in our November 2009 Determination of Eligibility for Papscaanee Island, "Papscaanee Island is historically and archaeologically significant for its association with the Upper Hudson Valley's predominate native people, the Mohican..." "The rich soil along the flats and on Papscaanee Island were flooded annually and generations of Mohicans cleared and cultivated these areas."

While some buildings have been introduced into the landscape, these buildings are not directly across from one of the few remaining cultivated areas on the Island. Since only the top of the building will be visible, the SHPO continues to recommend that this undertaking will have **No Adverse Effect** on historic properties with the **condition** that non-reflective, earth toned roofing materials are utilized. Maintaining a non-reflective roof will minimize any visual intrusions and help maintain the agricultural setting of the Papscaanee Island Historic District.

If you have any questions, I can be reached at (518) 268-2179.

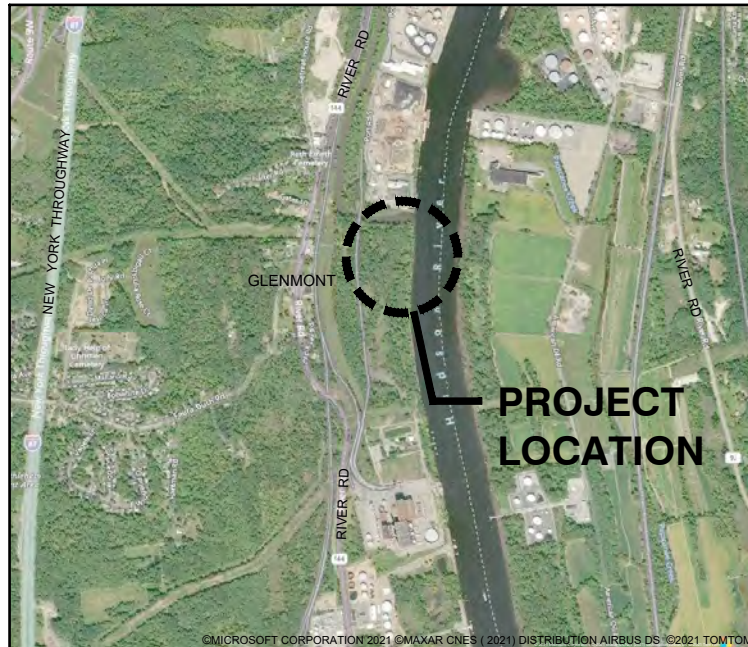
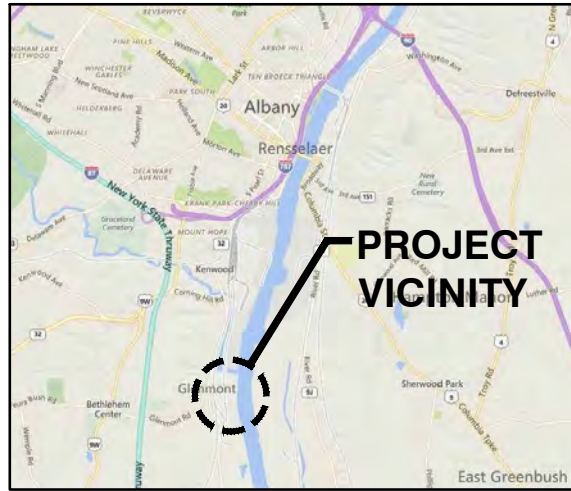
Sincerely,

Nancy Herter  
Archaeology Unit Program Coordinator

# APPENDIX G

DRAFT WHARF AND DREDGING E&SC PLANS

File: Q:\NY10949-01\20 CADD\ Active\ Permits\1094901\P-01 - Plotted: 10/12/2021 3:17 PM by: COKER, MAEVE ; Saved: 10/12/2021 2:59 PM by: MCOCKER



**VICINITY AND LOCATION MAP**

SCALE: N.T.S.

**NOTES:**

1. HORIZONTAL CONTROL REFERENCED TO NORTH AMERICAN DATUM OF 1983, STATE PLANE COORDINATE SYSTEM, NEW YORK, EAST ZONE, IN FEET.
2. WATER LEVEL DATUM IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AS FOLLOWS:
  - MEAN HIGHER HIGH WATER LEVEL (MHHW) = +3.78 (NAVD88)
  - MEAN HIGH WATER LEVEL (MHW) = +3.40 (NAVD88)
  - MEAN TIDE LEVEL (MTL) = +0.91 (NAVD88)
  - MEAN LOW WATER LEVEL (MLW) = -1.59 (NAVD88)
  - MEAN LOWER LOW WATER LEVEL (MLLW) = -1.81 (NAVD88)

PURPOSE: WHARF CONSTRUCTION  
 PERMIT SUBMITTAL-NOT TO BE USED  
 FOR CONSTRUCTION  
 DATUM: NAVD88



OWNER/APPLICANT:  
 ALBANY PORT DISTRICT COMMISSION  
 PORT OF ALBANY

IN: HUDSON RIVER  
 NEAR: SOUTH OF ALBANY  
 LOCATION: PORT OF ALBANY  
 106 SMITH BOULEVARD  
 ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

**VICINITY AND LOCATION**

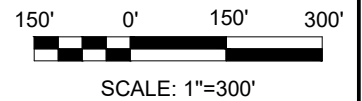
SHEET 1 OF 5 DATE: (REV1) 2021-10-11



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### PLAN - EXISTING CONDITIONS



PURPOSE: WHARF CONSTRUCTION  
 PERMIT SUBMITTAL-NOT TO BE USED  
 FOR CONSTRUCTION  
 DATUM: NAVD88



OWNER/APPLICANT:  
 ALBANY PORT DISTRICT COMMISSION  
 PORT OF ALBANY

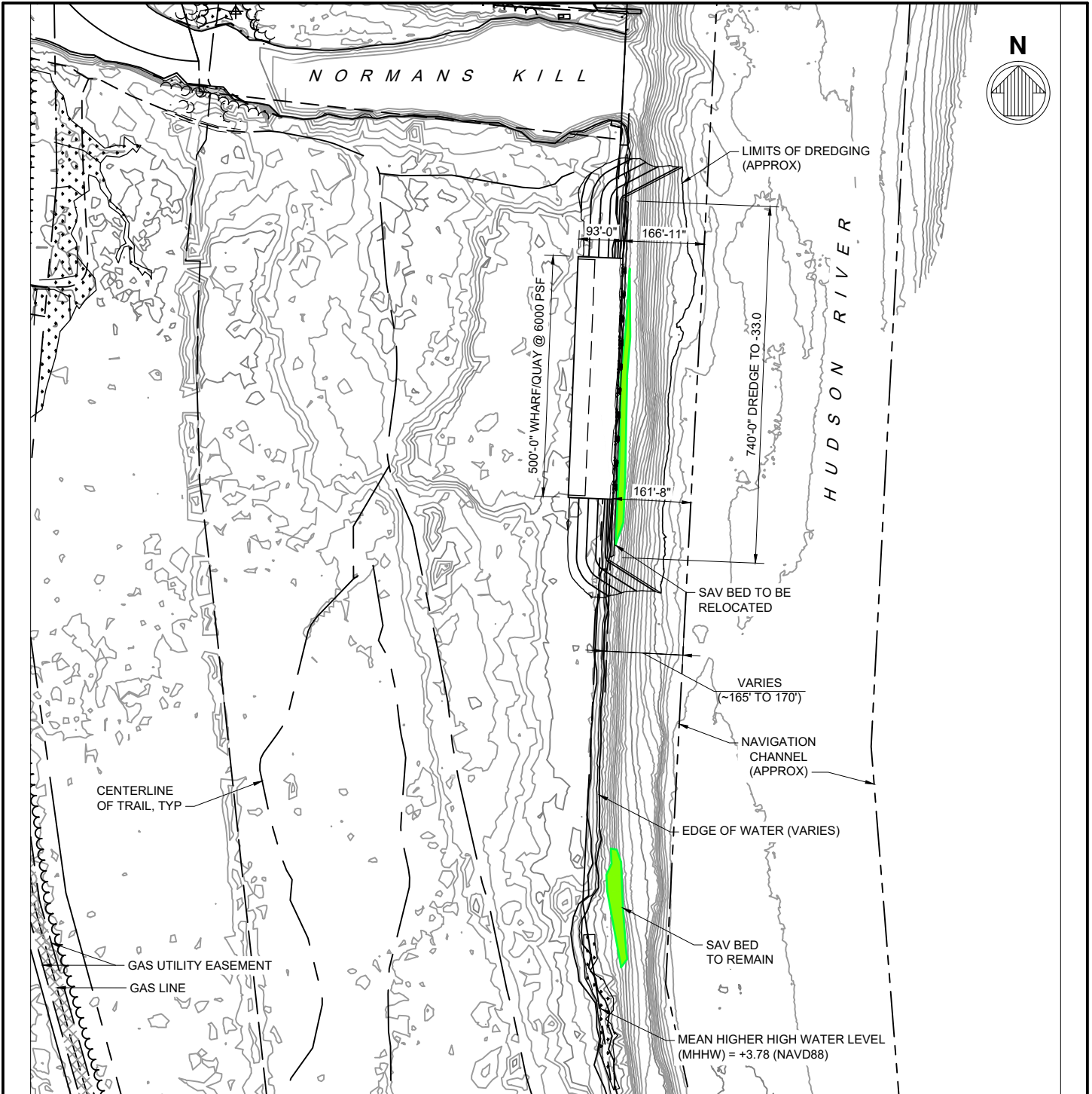
IN: HUDSON RIVER  
 NEAR: SOUTH OF ALBANY  
 LOCATION: PORT OF ALBANY  
 106 SMITH BOULEVARD  
 ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

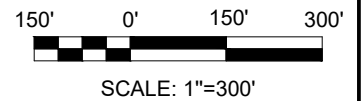
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SHEET 2 OF 5 DATE: (REV1) 2021-10-11

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### PLAN - PROPOSED CONDITIONS



PURPOSE: WHARF CONSTRUCTION  
 PERMIT SUBMITTAL-NOT TO BE USED  
 FOR CONSTRUCTION  
 DATUM: NAVD88



OWNER/APPLICANT:  
 ALBANY PORT DISTRICT COMMISSION  
 PORT OF ALBANY

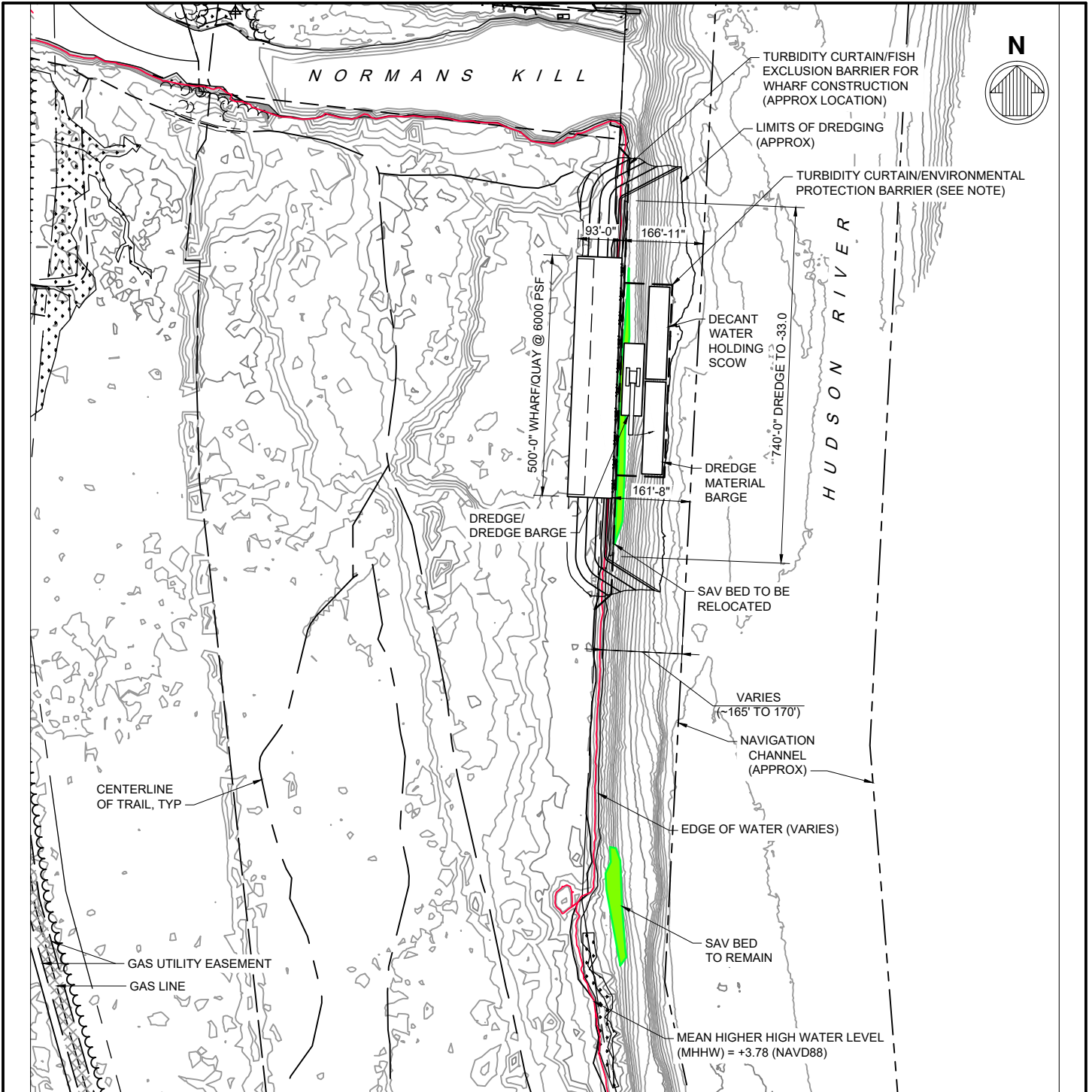
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 NEAR: SOUTH OF ALBANY  
 LOCATION: PORT OF ALBANY  
 106 SMITH BOULEVARD  
 ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

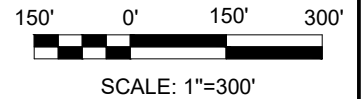
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SHEET 3 OF 5 DATE: (REV1) 2021-10-11

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**PLAN - PROPOSED TEMPORARY ENVIRONMENTAL PROTECTION**



NOTE: DREDGE EQUIPMENT AND ASSOCIATED TURBIDITY CURTAIN/ ENVIRONMENTAL PROTECTION BARRIER LOCATIONS VARY.

PURPOSE: WHARF CONSTRUCTION PERMIT SUBMITTAL-NOT TO BE USED FOR CONSTRUCTION  
DATUM: NAVD88



m&n engineering, p.c.

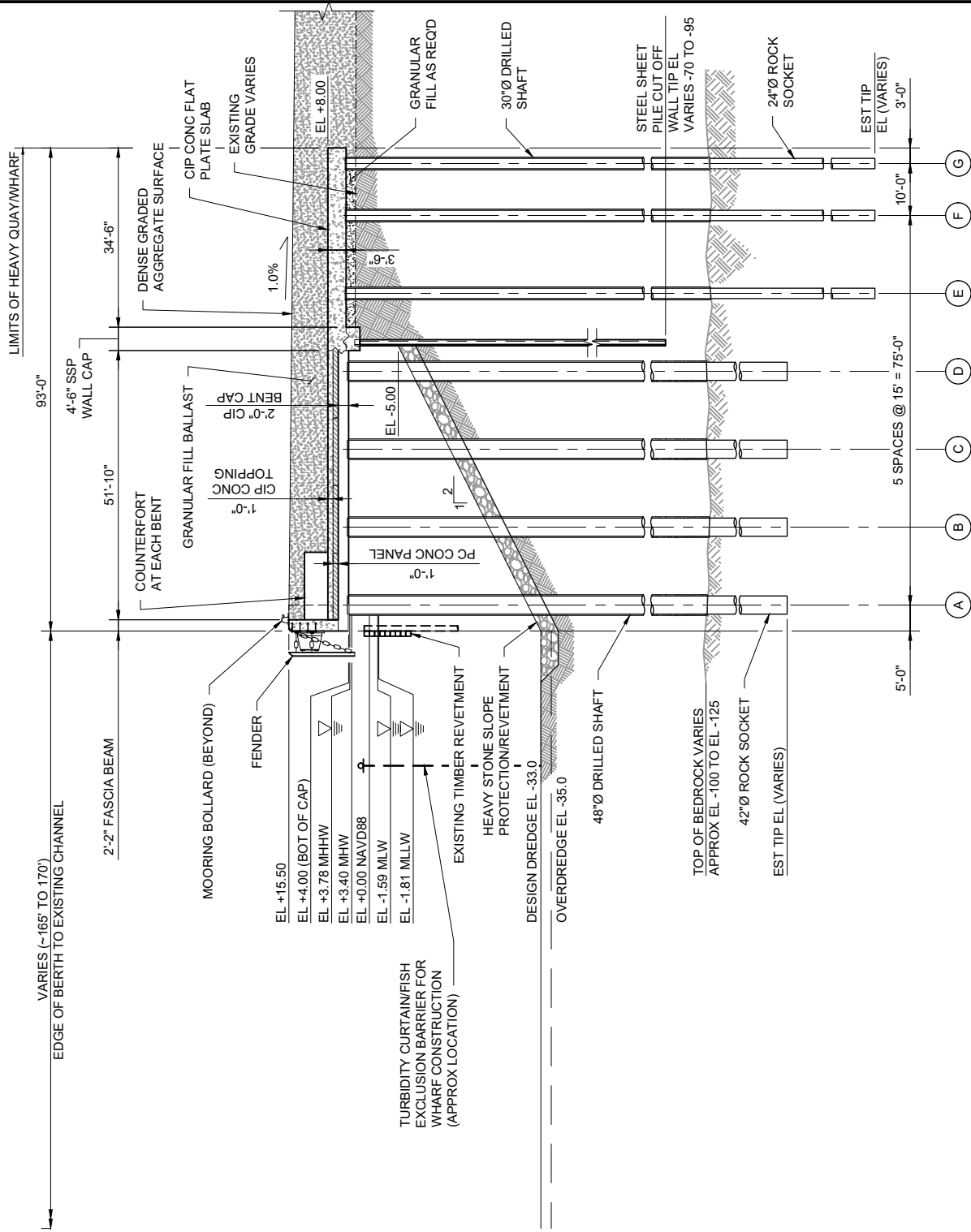
OWNER/APPLICANT:  
ALBANY PORT DISTRICT COMMISSION  
PORT OF ALBANY

IN: HUDSON RIVER  
NEAR: SOUTH OF ALBANY  
LOCATION: PORT OF ALBANY  
106 SMITH BOULEVARD  
ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

**PLAN - PROPOSED TEMPORARY ENVIRONMENTAL PROTECTION**

SHEET 4 OF 5 DATE: (REV1) 2021-10-11



**SECTION - WHARF AND DREDGING**

SCALE: N.T.S.

PURPOSE: WHARF CONSTRUCTION  
 PERMIT SUBMITTAL-NOT TO BE USED  
 FOR CONSTRUCTION  
 DATUM: NAVD88



OWNER/APPLICANT:  
 ALBANY PORT DISTRICT COMMISSION  
 PORT OF ALBANY

IN: HUDSON RIVER  
 NEAR: SOUTH OF ALBANY  
 LOCATION: PORT OF ALBANY  
 106 SMITH BOULEVARD  
 ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

**SECTION - WHARF AND DREDGING**

SHEET 5 OF 5 DATE: (REV1) 2021-10-11

# APPENDIX H

## SOIL MANAGEMENT PLAN

# APPENDIX I

## SEDIMENT BASIN CALCULATIONS



# TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

Computed by NSO Date 1/20/22 Checked by \_\_\_\_\_ Date \_\_\_\_\_  
Project Port of Albany Basin # 1/ WQv Pond #2  
Location Expansion Site Total Area draining to basin ( $\leq 50$  Ac.) 5.3 Acres

## BASIN SIZE DESIGN

1. Sediment storage zone volume = 1,000 cu. ft. x number of disturbed acres = 5,300 cu. ft., Top of Zone Elev. \_\_\_\_\_
2. Dewatering zone volume = 3,600 cu. ft. x number of drainage area acres = 19,080 cu. ft., Top of Zone Elev. \_\_\_\_\_
3. Length to width ratio = 3.6:1
4. A. Cleanout at 50% of sediment storage zone volume, Elev. \_\_\_\_\_  
B. Distance below top of riser \_\_\_\_\_ feet
5. Minimum surface area is larger of  $0.01 Q_{(10)}$  0.15 or,  $0.015 DA = 0.08$  use 0.15 acres

## DESIGN OF SPILLWAYS & ELEVATIONS

### Runoff

6.  $Q_{p(10)} =$  14.96 cfs (Attach runoff computation sheets)

### Pipe Spillway ( $Q_{ps}$ )

7. Min. pipe spillway cap.,  $Q_{ps} = 0.2 \times$  \_\_\_\_\_ Drainage Area, acres = \_\_\_\_\_ cfs  
Note: If there is no emergency spillway, then required  $Q_{ps} = Q_{p(10)} =$  \_\_\_\_\_ cfs.
8. H, head = \_\_\_\_\_ ft. Barrel length = \_\_\_\_\_ ft
9. Barrel: Diam. \_\_\_\_\_ inches;  $Q_{ps} = (Q)$  \_\_\_\_\_ x (cor.fac.) \_\_\_\_\_ = \_\_\_\_\_ cfs.
10. Riser: Diam. \_\_\_\_\_ inches; Length \_\_\_\_\_ ft.; h = \_\_\_\_\_ ft. Crest Elev. \_\_\_\_\_
11. Trash Rack: Diameter = \_\_\_\_\_ inches; H, height = \_\_\_\_\_ inches

\*Basin 1 (WQv Pond #2) has adequate storage and surface area to function as a temporary sediment basin. All pipes and structures within basin are to be covered with filter fabric during construction. Sediment cleanout is to take place once final stabilization is reached.

### Emergency Spillway Design

12. Emergency Spillway Flow,  $Q_{es} = Q_p - Q_{ps} =$  \_\_\_\_\_ - \_\_\_\_\_ = \_\_\_\_\_ cfs.
13. Width \_\_\_\_\_ ft.;  $H_p$  \_\_\_\_\_ ft. Crest elevation \_\_\_\_\_; Design High Water Elev. \_\_\_\_\_  
Entrance channel slope \_\_\_\_\_ % ; Top of Dam Elev. \_\_\_\_\_  
Exit channel slope \_\_\_\_\_ %

## ANTI-SEEP COLLAR/SEEPAGE DIAPHRAGM DESIGN

### Collars:

14.  $y =$  \_\_\_\_\_ ft.;  $z =$  \_\_\_\_\_ :1; pipe slope = \_\_\_\_\_ %,  $L_s =$  \_\_\_\_\_ ft.  
Use \_\_\_\_\_ collars, \_\_\_\_\_ - \_\_\_\_\_ inches square; projection = \_\_\_\_\_ ft.

### Diaphragms:

# \_\_\_\_\_ width \_\_\_\_\_ ft. height \_\_\_\_\_ ft.

## DEWATERING ORIFICE SIZING

(Determined from the Dewatering Device Standard)

15. Dewatering orifice diameter = \_\_\_\_\_ inches. Skimmer \_\_\_\_\_ or Riser \_\_\_\_\_ (check one)  
16. Design dewatering time \_\_\_\_\_ days (Min. 2 days required)

# TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

Computed by NSO Date 1/20/22 Checked by \_\_\_\_\_ Date \_\_\_\_\_  
Project Port of Albany Basin # 2  
Location Expansion Site Total Area draining to basin ( $\leq 50$  Ac.) 15.2 Acres

## BASIN SIZE DESIGN

- Sediment storage zone volume = 1,000 cu. ft. x number of disturbed acres = 15,200 cu. ft., Top of Zone Elev. 7.5
- Dewatering zone volume = 3,600 cu. ft. x number of drainage area acres = 54,720 cu. ft., Top of Zone Elev. 11.0
- Length to width ratio = 9.2:1
- A. Cleanout at 50% of sediment storage zone volume, Elev. 6.75'  
B. Distance below top of riser 4.25 feet
- Minimum surface area is larger of  $0.01 Q_{(10)}$  0.57 or,  $0.015 DA$  = 0.23 use 0.57 acres

## DESIGN OF SPILLWAYS & ELEVATIONS

### Runoff

6.  $Q_{p(10)}$  = 56.95 cfs (Attach runoff computation sheets)

### Pipe Spillway ( $Q_{ps}$ )

7. Min. pipe spillway cap.,  $Q_{ps} = 0.2 \times$  15.2 Drainage Area, acres = 3.04 cfs  
Note: If there is no emergency spillway, then required  $Q_{ps} = Q_{p(10)} =$  - cfs.
8. H, head = 5 ft. Barrel length = 115 ft
9. Barrel: Diam. 12 inches;  $Q_{ps} = (Q)$  4.41 x (cor.fac.) 0.86 = 3.79 cfs.
10. Riser: Diam. 15 inches; Length 4.5 ft.; h = 1 ft. Crest Elev. 11.0
11. Trash Rack: Diameter = 21 inches; H, height = 7 inches

### Emergency Spillway Design

12. Emergency Spillway Flow,  $Q_{es} = Q_p - Q_{ps} =$  56.95 - 3.79 = 53.16 cfs.
13. Width 15 ft.;  $H_p$  1 ft Crest elevation 12.0; Design High Water Elev. 13.0  
Entrance channel slope 1 %; Top of Dam Elev. 14.0  
Exit channel slope 3 %

## ANTI-SEEP COLLAR/SEEPAGE DIAPHRAGM DESIGN

### Collars:

14.  $y =$  4.5 ft.;  $z =$  2 :1; pipe slope = 0.5 %,  $L_s =$  27 ft.  
Use 2 collars, 4 - 0 inches square; projection = 1.4 ft.

### Diaphragms:

# \_\_\_\_\_ width \_\_\_\_\_ ft. height \_\_\_\_\_ ft.

## DEWATERING ORIFICE SIZING

(Determined from the Dewatering Device Standard)

15. Dewatering orifice diameter = 5 inches. Skimmer  or Riser \_\_\_\_\_ (check one)  
16. Design dewatering time 2 days (Min. 2 days required)



# TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

Computed by NSO Date 1/20/22 Checked by \_\_\_\_\_ Date \_\_\_\_\_  
Project Port of Albany Basin # 3  
Location Expansion Site Total Area draining to basin ( $\leq 50$  Ac.) 33.0 Acres

## BASIN SIZE DESIGN

- Sediment storage zone volume = 1,000 cu. ft. x number of disturbed acres = 33,000 cu. ft., Top of Zone Elev. 7.5
- Dewatering zone volume = 3,600 cu. ft. x number of drainage area acres = 118,800 cu. ft., Top of Zone Elev. 11.0
- Length to width ratio = 11.6:1
- A. Cleanout at 50% of sediment storage zone volume, Elev. 6.75  
B. Distance below top of riser 4.25 feet
- Minimum surface area is larger of  $0.01 Q_{(10)}$  1.11 or,  $0.015 DA$  = .49 use 1.11 acres

## DESIGN OF SPILLWAYS & ELEVATIONS

### Runoff

- $Q_{p(10)}$  = 110.93 cfs (Attach runoff computation sheets)

### Pipe Spillway ( $Q_{ps}$ )

- Min. pipe spillway cap.,  $Q_{ps} = 0.2 \times$  33 Drainage Area, acres = 6.6 cfs  
Note: If there is no emergency spillway, then required  $Q_{ps} = Q_{p(10)} =$  - cfs.
- H, head = 5 ft. Barrel length = 115 ft
- Barrel: Diam. 15 inches;  $Q_{ps} = (Q)$  7.78 x (cor.fac.) 0.85 = 6.61 cfs.
- Riser: Diam. 18 inches; Length 4.5 ft.; h = 1 ft. Crest Elev. 11.0
- Trash Rack: Diameter = 27 inches; H, height = 8 inches

### Emergency Spillway Design

- Emergency Spillway Flow,  $Q_{es} = Q_p - Q_{ps} =$  110.93 - 6.61 = 104.32 cfs.
- Width 30 ft.;  $H_p$  1 ft Crest elevation 12.0; Design High Water Elev. 13.0  
Entrance channel slope 1 %; Top of Dam Elev. 14.0  
Exit channel slope 3 %

## ANTI-SEEP COLLAR/SEEPAGE DIAPHRAGM DESIGN

### Collars:

- $y =$  4.5 ft.;  $z =$  3 :1; pipe slope = 0.5 %,  $L_s =$  31.5 ft.  
Use 2 collars, 4 - 3 inches square; projection = 1.6 ft.

### Diaphragms:

# \_\_\_\_\_ width \_\_\_\_\_ ft. height \_\_\_\_\_ ft.

## DEWATERING ORIFICE SIZING

(Determined from the Dewatering Device Standard)

- Dewatering orifice diameter = 7 inches. Skimmer X or Riser \_\_\_\_\_ (check one)
- Design dewatering time 2 days (Min. 2 days required)

# 18641.00-Construction Activity

Prepared by McFarland Johnson

HydroCAD® 10.10-5a s/n 02401 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=3.63"

Printed 1/25/2022

Page 4

## Summary for Subcatchment DA1: (new Subcat)

Runoff = 14.96 cfs @ 12.07 hrs, Volume= 0.906 af, Depth> 2.05"

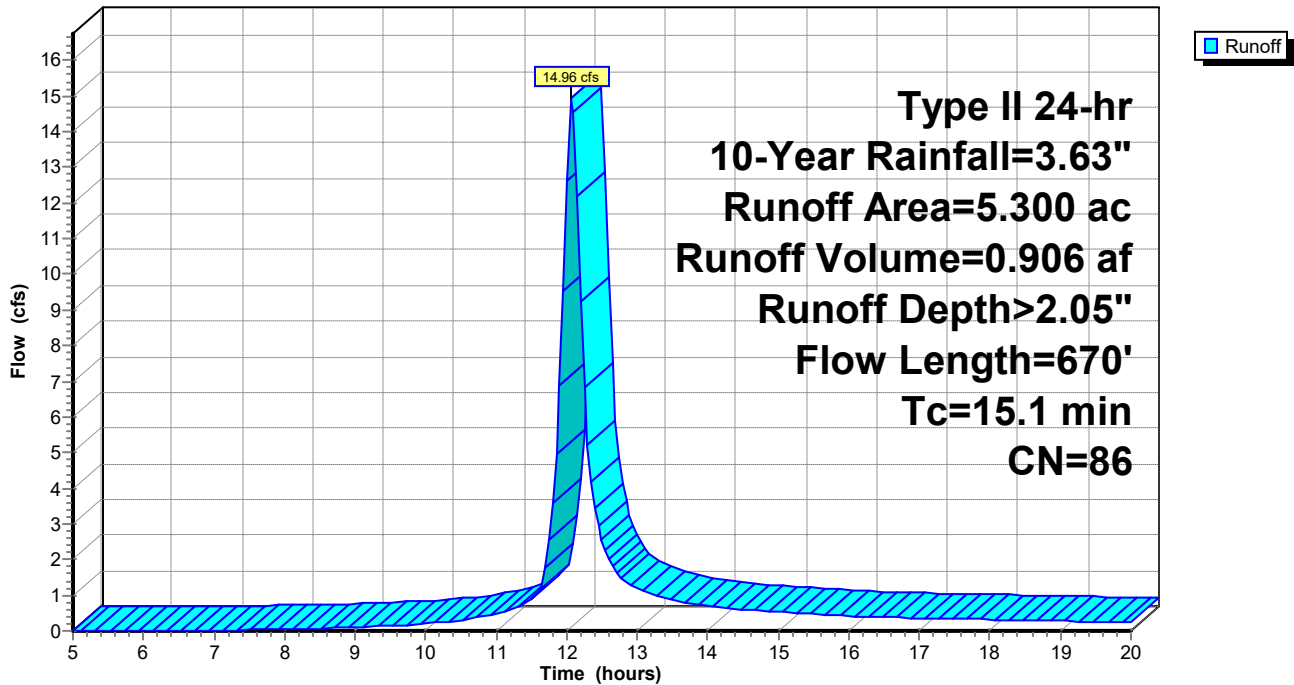
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
0.850	96	Gravel surface, HSG D
2.200	80	>75% Grass cover, Good, HSG D
2.250	89	Dirt roads, HSG D
5.300	86	Weighted Average
5.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.5	150	0.0200	0.72		Sheet Flow, n= 0.023 P2= 2.40"
11.6	520	0.0025	0.75		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
15.1	670	Total			

## Subcatchment DA1: (new Subcat)

Hydrograph



**18641.00-Construction Activity**

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Type II 24-hr 10-Year Rainfall=3.63"

Printed 1/25/2022

Page 5

**Summary for Subcatchment DA2: (new Subcat)**

Runoff = 56.95 cfs @ 12.04 hrs, Volume= 3.393 af, Depth> 2.68"

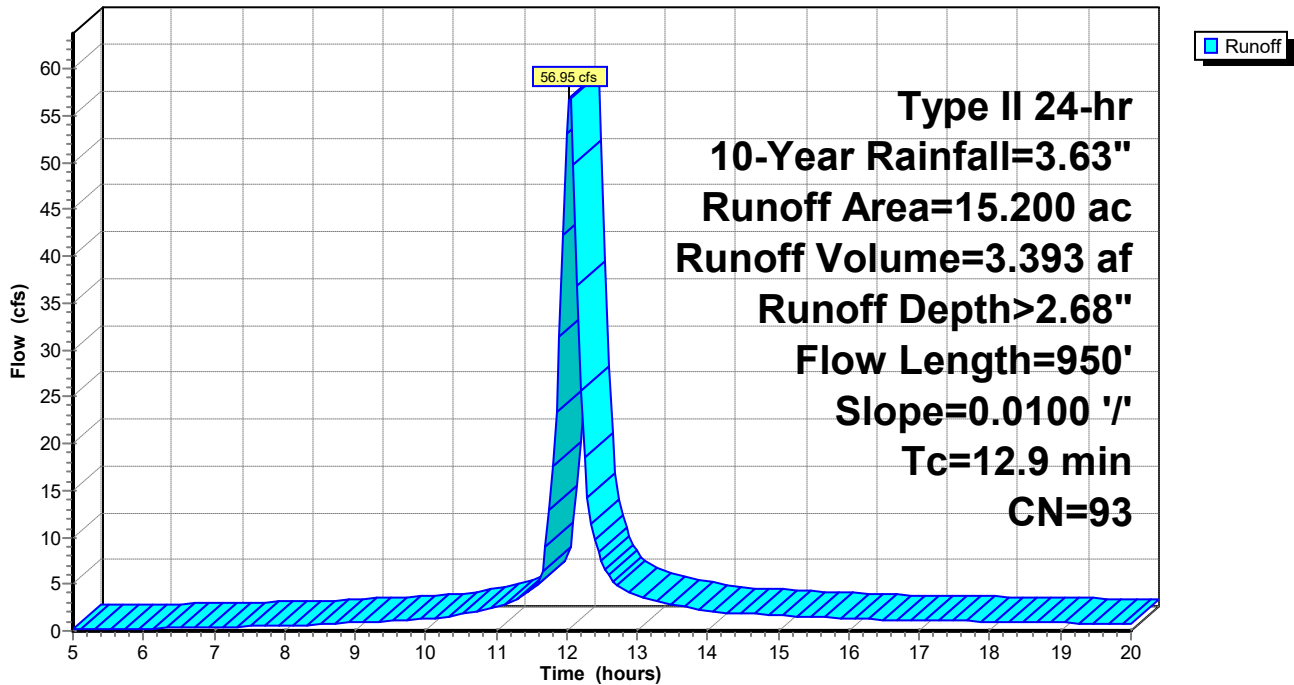
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 6.900	98	Bldg A
8.300	89	Dirt roads, HSG D
15.200	93	Weighted Average
8.300		54.61% Pervious Area
6.900		45.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	150	0.0100	0.54		Sheet Flow, n= 0.023 P2= 2.40"
8.3	800	0.0100	1.61		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
12.9	950	Total			

**Subcatchment DA2: (new Subcat)**

Hydrograph



# 18641.00-Construction Activity

Prepared by McFarland Johnson

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Type II 24-hr 10-Year Rainfall=3.63"

Printed 1/25/2022

Page 6

## Summary for Subcatchment DA3: (new Subcat)

Runoff = 110.93 cfs @ 12.06 hrs, Volume= 6.847 af, Depth> 2.49"

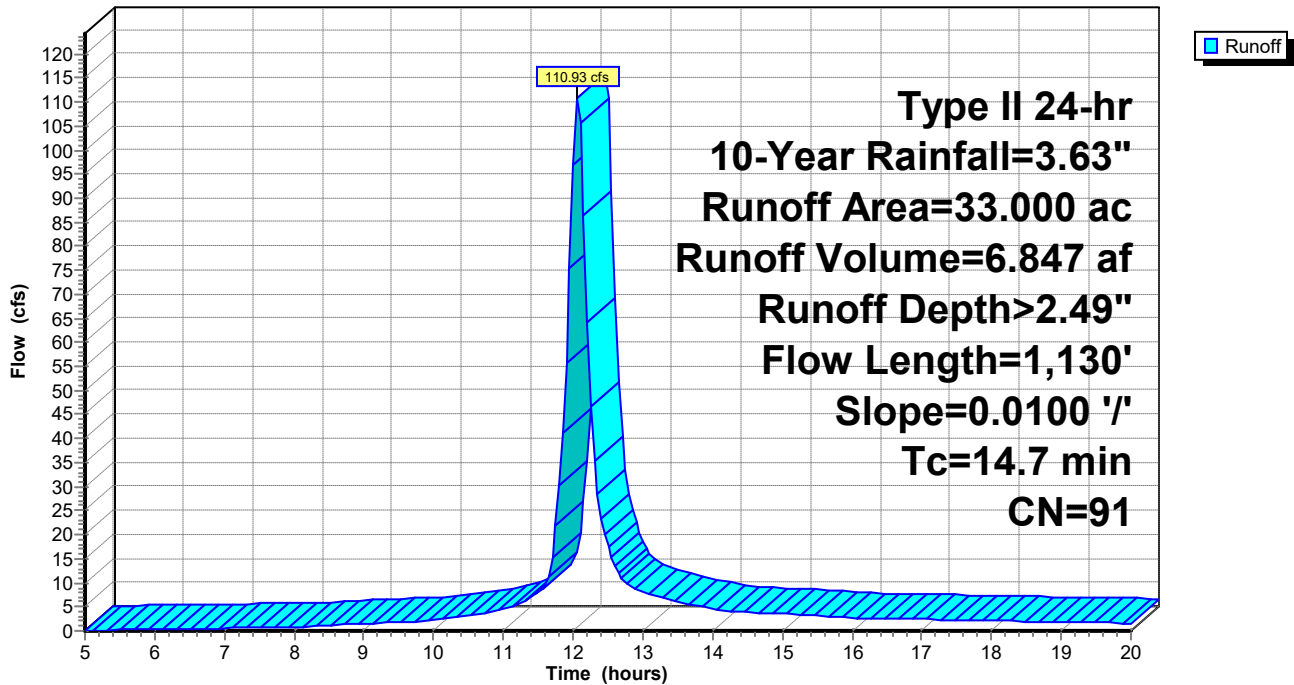
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 7.000	98	Bldg B C D
26.000	89	Dirt roads, HSG D
33.000	91	Weighted Average
26.000		78.79% Pervious Area
7.000		21.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	150	0.0100	0.54		Sheet Flow, n= 0.023 P2= 2.40"
10.1	980	0.0100	1.61		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
14.7	1,130	Total			

## Subcatchment DA3: (new Subcat)

Hydrograph



**18641.00-Construction Activity**

Type II 24-hr 10-Year Rainfall=3.63"

Prepared by McFarland Johnson

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Page 7

**Summary for Pond 2P: (new Pond)**

Volume	Invert	Avail.Storage	Storage Description			
#1	6.00'	71,786 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
6.00	9,449	976.0	0	0	9,449	
7.00	11,415	988.9	10,417	10,417	11,693	
7.50	12,407	995.0	5,954	16,370	12,776	
11.00	19,527	1,039.0	55,416	71,786	20,738	

**18641.00-Construction Activity**

Type II 24-hr 10-Year Rainfall=3.63"

Prepared by McFarland Johnson

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Page 8

**Summary for Pond 3p: (new Pond)**

Volume	Invert	Avail.Storage	Storage Description			
#1	6.00'	156,085 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
6.00	21,679	1,328.0	0	0	21,679	
6.50	23,679	1,338.0	11,336	11,336	23,903	
7.00	25,694	1,347.0	12,340	23,676	25,940	
7.50	27,044	1,353.0	13,183	36,859	27,395	
11.00	41,606	1,419.0	119,226	156,085	42,740	

# APPENDIX J

DRAFT NOI

# Table of Contents

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(Submission #: HPE-0QXG-AE8EZ, version 1)	2
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# NOI for coverage under Stormwater General Permit for Construction Activity

version 1.32

(Submission #: HPE-0QXG-AE8EZ, version 1)

## Details

---

**Originally Started By** Natalie Olivieri  
**Alternate Identifier** Marmen-Welcon Tower Manufacturing Plant  
**Submission ID** HPE-0QXG-AE8EZ  
**Submission Reason** New  
**Status** Draft  
**Active Steps** Form Submitted

## Form Input

---

### Owner/Operator Information

**Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.)**

Albany Port District Commission

**Owner/Operator Contact Person Last Name (NOT CONSULTANT)**

Hendrick

**Owner/Operator Contact Person First Name**

Richard

**Owner/Operator Mailing Address**

106 Smith Boulevard

**City**

Albany

**State**

New York

**Zip**

12205

**Phone**

5184638763

**Email**

NONE PROVIDED

**Federal Tax ID**

NONE PROVIDED

### Project Location

**Project/Site Name**

Marmen-Welcon Tower Manufacturing Plant

**Street Address (Not P.O. Box)**

309 River Road

**Side of Street**

East

**City/Town/Village (THAT ISSUES BUILDING PERMIT)**

Town of Bethlehem

**State**

NY

**Zip**

12077

**DEC Region**

4

**County**

ALBANY

**Name of Nearest Cross Street**

Old River Road

**Distance to Nearest Cross Street (Feet)**

970

**Project In Relation to Cross Street**

South

**Tax Map Numbers Section-Block-Parcel**

98.00-2-10.23

**Tax Map Numbers**

98.01-2-1.0

**1. Coordinates**

---

Provide the Geographic Coordinates for the project site. The two methods are:

- Navigate to the project location on the map (below) and click to place a marker and obtain the XY coordinates.
- The "Find Me" button will provide the lat/long for the person filling out this form. Then pan the map to the correct location and click the map to place a marker and obtain the XY coordinates.

**Navigate to your location and click on the map to get the X,Y coordinates**

42.602283629058164,-73.76555834600738

**Project Details****2. What is the nature of this project?**

New Construction

**3. Select the predominant land use for both pre and post development conditions.****Pre-Development Existing Landuse**

Forest

**Post-Development Future Land Use**

Industrial

**3a. If Single Family Subdivision was selected in question 3, enter the number of subdivision lots.**

NONE PROVIDED

---

4. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage)within the disturbed area.

\*\*\* ROUND TO THE NEAREST TENTH OF AN ACRE. \*\*\*

**Total Site Area (acres)**

108.6

**Total Area to be Disturbed (acres)**

72.7

**Existing Impervious Area to be Disturbed (acres)**

5.2

**Future Impervious Area Within Disturbed Area (acres)**

65.9

**5. Do you plan to disturb more than 5 acres of soil at any one time?**

Yes

---

6. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

**A (%)**

3.2

**B (%)**

0

**C (%)**

0

**D (%)**

96.8

**7. Is this a phased project?**

Yes

**8. Enter the planned start and end dates of the disturbance activities.**

**Start Date**

3/7/2022

**End Date**

9/1/2023

**9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.**

Hudson River, Normans Kill, Wetland

**9a. Type of waterbody identified in question 9?**

Wetland/Federal Jurisdiction On Site (Answer 9b)

River On Site

Stream/Creek On Site

**Other Waterbody Type Off Site Description**

NONE PROVIDED

**9b. If "wetland" was selected in 9A, how was the wetland identified?**

Delineated by Consultant

**10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001?**

No

**11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001?**

No

**12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters?**

No

If No, skip question 13.

**13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey?**

No

**If Yes, what is the acreage to be disturbed?**

NONE PROVIDED

**14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?**

Yes

**15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?**

No

**16. What is the name of the municipality/entity that owns the separate storm sewer system?**

NONE PROVIDED

**17. Does any runoff from the site enter a sewer classified as a Combined Sewer?**

No

**18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?**

No

**19. Is this property owned by a state authority, state agency, federal government or local government?**

Yes

**20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.)**

NONE PROVIDED

## **Required SWPPP Components**

**21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?**

Yes

**22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)?**

Yes

**If you answered No in question 22, skip question 23 and the Post-construction Criteria and Post-construction SMP Identification sections.**

**23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual?**

No

**24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:**

Professional Engineer (P.E.)

**SWPPP Preparer**

Adam Frosino

**Contact Name (Last, Space, First)**

Frosino, Adam

**Mailing Address**

60 Railroad Place, Suite 402

**City**

Saratoga Springs

**State**

NY

**Zip**

12866

**Phone**

5185809380

**Email**

afrosino@mjjinc.com

**Download SWPPP Preparer Certification Form**

Please take the following steps to prepare and upload your preparer certification form:

- 1) Click on the link below to download a blank certification form
- 2) The certified SWPPP preparer should sign this form
- 3) Scan the signed form
- 4) Upload the scanned document

[Download SWPPP Preparer Certification Form](#)**Please upload the SWPPP Preparer Certification**

NONE PROVIDED

**Comment**

NONE PROVIDED

**Erosion & Sediment Control Criteria****25. Has a construction sequence schedule for the planned management practices been prepared?**

Yes

**26. Select all of the erosion and sediment control practices that will be employed on the project site:****Temporary Structural**

Check Dams  
 Construction Road Stabilization  
 Dust Control  
 Perimeter Dike/Swale  
 Sediment Basin  
 Sediment Traps  
 Silt Fence  
 Stabilized Construction Entrance  
 Storm Drain Inlet Protection

**Biotechnical**

None

**Vegetative Measures**

Mulching  
 Seeding  
 Temporary Swale  
 Topsoiling

**Permanent Structural**

Lined Waterway (Rock)  
 Land Grading  
 Retaining Wall  
 Rock Outlet Protection  
 Streambank Protection

**Other**

NONE PROVIDED

**Post-Construction Criteria**

**\* IMPORTANT: Completion of Questions 27-39 is not required if response to Question 22 is No.**

**27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.**

Preservation of Undisturbed Area  
Preservation of Buffers  
Reduction of Clearing and Grading

**27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).**

NONE PROVIDED

**28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout). (Acre-feet)**  
6.27

**29. Post-construction SMP Identification**

Use the Post-construction SMP Identification section to identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity that were used to reduce the Total WQv Required (#28).

Identify the SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use the Post-Construction SMP Identification section to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

**30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. (acre-feet)**

0.1

**31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)?**

No

**If Yes, go to question 36. If No, go to question 32.**

**32. Provide the Minimum RRv required based on HSG. [Minimum RRv Required = (P) (0.95) (Ai) / 12, Ai=(s) (Aic)] (acre-feet)**

1.32

**32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?**

No

**If Yes, go to question 33.**

Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

**33. SMPs**

Use the Post-construction SMP Identification section to identify the Standard SMPs and, if applicable, the Alternative SMPs to be used to treat the remaining total WQv (=Total WQv Required in #28 - Total RRv Provided in #30).

Also, provide the total impervious area that contributes runoff to each practice selected.

NOTE: Use the Post-construction SMP Identification section to identify the SMPs used on Redevelopment projects.

**33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question #29. (acre-feet)**

6.17

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - provided by the practice. (See Table 3.5 in Design Manual)

**34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).**

6.27

**35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)?**

Yes

If Yes, go to question 36.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

**36. Provide the total Channel Protection Storage Volume (CPv required and provided or select waiver (#36a), if applicable.**

**CPv Required (acre-feet)**

NONE PROVIDED

**CPv Provided (acre-feet)**

NONE PROVIDED

**36a. The need to provide channel protection has been waived because:**

Site discharges directly to tidal waters or a fifth order or larger stream.

**37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (#37a), if applicable.**

**Overbank Flood Control Criteria (Qp)**

**Pre-Development (CFS)**

NONE PROVIDED

**Post-Development (CFS)**

NONE PROVIDED

**Total Extreme Flood Control Criteria (Qf)**

**Pre-Development (CFS)**

NONE PROVIDED

**Post-Development (CFS)**

NONE PROVIDED

**37a. The need to meet the Qp and Qf criteria has been waived because:**

Site discharges directly to tidal waters or a fifth order or larger stream.

**38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?**

Yes

**If Yes, Identify the entity responsible for the long term Operation and Maintenance**

Albany Port District Commission

**39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). (See question #32a) This space can also be used for other pertinent project information.**

The proposed Facility requires 85 acres of usable manufacturing and storage space along the Hudson River. This site was chosen given it is located adjacent to the existing Port of Albany and is directly on the Hudson River. However, the usable portion of the site adjacent to the Hudson River, is only 66-acre area. Therefore, the entirety of the site is needed for the OSW manufacturing process, with an ancillary receiving site located at 700 Smith Boulevard. In typical space restrictive scenarios, infiltration is a commonly used practice. However, the Expansion Site is a historic fly ash disposal area, containing highly contaminated soil. According to the site specific SMP, developed in coordination with the NYSDEC, infiltration is not recommended.

## **Post-Construction SMP Identification**

**Runoff Reduction (RR) Techniques, Standard Stormwater Management Practices (SMPs) and Alternative SMPs**  
Identify the Post-construction SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

**RR Techniques (Area Reduction)**

---

Round to the nearest tenth

**Total Contributing Acres for Conservation of Natural Area (RR-1)**

NONE PROVIDED

**Total Contributing Impervious Acres for Conservation of Natural Area (RR-1)**

NONE PROVIDED

**Total Contributing Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)**

NONE PROVIDED

**Total Contributing Impervious Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)**

NONE PROVIDED

**Total Contributing Acres for Tree Planting/Tree Pit (RR-3)**

NONE PROVIDED

**Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3)**

NONE PROVIDED

**Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4)**

NONE PROVIDED

**RR Techniques (Volume Reduction)**

---

**Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Vegetated Swale (RR-5)**

NONE PROVIDED

**Total Contributing Impervious Acres for Rain Garden (RR-6)**

NONE PROVIDED

**Total Contributing Impervious Acres for Stormwater Planter (RR-7)**

NONE PROVIDED

**Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8)**

NONE PROVIDED

**Total Contributing Impervious Acres for Porous Pavement (RR-9)**

NONE PROVIDED

**Total Contributing Impervious Acres for Green Roof (RR-10)**

NONE PROVIDED

**Standard SMPs with RRv Capacity**

---

**Total Contributing Impervious Acres for Infiltration Trench (I-1)**

NONE PROVIDED

**Total Contributing Impervious Acres for Infiltration Basin (I-2)**

1

**Total Contributing Impervious Acres for Dry Well (I-3)**

NONE PROVIDED



**Total Contributing Impervious Acres for Underground Infiltration System (I-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Bioretention (F-5)**

NONE PROVIDED

**Total Contributing Impervious Acres for Dry Swale (O-1)**

0.19

**Standard SMPs**

---

**Total Contributing Impervious Acres for Micropool Extended Detention (P-1)**

5.1

**Total Contributing Impervious Acres for Wet Pond (P-2)**

NONE PROVIDED

**Total Contributing Impervious Acres for Wet Extended Detention (P-3)**

NONE PROVIDED

**Total Contributing Impervious Acres for Multiple Pond System (P-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Pocket Pond (P-5)**

NONE PROVIDED

**Total Contributing Impervious Acres for Surface Sand Filter (F-1)**

NONE PROVIDED

**Total Contributing Impervious Acres for Underground Sand Filter (F-2)**

NONE PROVIDED

**Total Contributing Impervious Acres for Perimeter Sand Filter (F-3)**

NONE PROVIDED

**Total Contributing Impervious Acres for Organic Filter (F-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Shallow Wetland (W-1)**

NONE PROVIDED

**Total Contributing Impervious Acres for Extended Detention Wetland (W-2)**

NONE PROVIDED

**Total Contributing Impervious Acres for Pond/Wetland System (W-3)**

NONE PROVIDED

**Total Contributing Impervious Acres for Pocket Wetland (W-4)**

NONE PROVIDED

**Total Contributing Impervious Acres for Wet Swale (O-2)**

NONE PROVIDED

**Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)**

---

**Total Contributing Impervious Area for Hydrodynamic**

NONE PROVIDED

**Total Contributing Impervious Area for Wet Vault**

NONE PROVIDED

**Total Contributing Impervious Area for Media Filter**

NONE PROVIDED

**"Other" Alternative SMP?**

Contech Jellyfish Filter

**Total Contributing Impervious Area for "Other"**

59.6

**Provide the name and manufacturer of the alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.**

**Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.**

**Manufacturer of Alternative SMP**

Contech

**Name of Alternative SMP**

Jellyfish Filter

**Other Permits**

**40. Identify other DEC permits, existing and new, that are required for this project/facility.**

Endangered or Threatened Species (Incidental Take Permit)

**If SPDES Multi-Sector GP, then give permit ID**

NONE PROVIDED

**If Other, then identify**

Wetland Joint Permit Application

**41. Does this project require a US Army Corps of Engineers Wetland Permit?**

Yes

**If "Yes," then indicate Size of Impact, in acres, to the nearest tenth**

0.9

**42. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.**

NONE PROVIDED

**MS4 SWPPP Acceptance**

**43. Is this project subject to the requirements of a regulated, traditional land use control MS4?**

Yes - Please attach the MS4 Acceptance form below

**If No, skip question 44**

**44. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?**

NONE PROVIDED

**MS4 SWPPP Acceptance Form Download**

Download form from the link below. Complete, sign, and upload.

[MS4 SWPPP Acceptance Form](#)

**MS4 Acceptance Form Upload**

NONE PROVIDED

**Comment**

NONE PROVIDED

**Owner/Operator Certification**

**Owner/Operator Certification Form Download**

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.  
[Owner/Operator Certification Form \(PDF, 45KB\)](#)

### Upload Owner/Operator Certification Form

NONE PROVIDED

**Comment**

NONE PROVIDED

## Status History

---

	User	Processing Status
12/16/2021 1:10:48 PM	Natalie Olivieri	Draft

## Processing Steps

---

Step Name	Assigned To/Completed By	Date Completed
Form Submitted		
Under Review	DAVID GASPER	

**APPENDIX D**  
**Soil Management Plan**

**SOIL MANAGEMENT PLAN**

**PORT OF ALBANY EXPANSION PROJECT  
BEACON ISLAND PARCEL  
BETHLEHEM, ALBANY COUNTY, NEW YORK**



*WBE certified company*

**PREPARED BY:**

**ATLANTIC TESTING LABORATORIES, LIMITED  
22 Corporate Drive  
Clifton Park, New York 12065**

**PREPARED FOR:**

**McFarland Johnson, Inc.  
60 Railroad Place, Suite 402  
Saratoga Springs, New York 12866  
*MJ Project No. 18641.02***

**Albany Port District Commission  
106 Smith Boulevard  
Albany, New York 12202**

**ATL REPORT NO. AT5596CE-05-10-20 Revision 2**

**October 20, 2022**

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## **1.0 INTRODUCTION**

### **1.1 Purpose**

Atlantic Testing Laboratories, Limited (ATL) was retained by McFarland Johnson, Inc., on behalf of the Albany Port District Commission, to prepare a Soil Management Plan that can be used to address areas at the Beacon Island parcel that are impacted with ash material and related debris. The purpose of this Soil Management Plan is to summarize procedures to implement for planned excavation activities, installation of a soil cover system in areas of ash material or other potential impacted fill, and management of waste soil and/or groundwater. This Soil Management Plan also addresses protocol for monitoring and sampling and analysis during excavation and site work, and recommendations for installation of vapor barrier systems beneath proposed buildings.

### **1.2 Site Description**

The project site is the Beacon Island parcel located to the east of River Road (County Route 144) and along the west side of the Hudson River, in the Town of Bethlehem, Albany County, New York. The Beacon Island parcel is comprised of approximately 80 acres, and is the site of a planned expansion for the Port of Albany. A Site Location Map, showing the approximate location of the subject site, is included in Appendix A.

Information provided to ATL by McFarland Johnson, Inc., indicates that planned redevelopment for the site includes land clearing, grading, excavation and backfill operations, dredging sediment for the area along the Hudson River, and construction of facilities to be associated with the Port of Albany.

### **1.3 Plan Contents and Organization**

This Soil Management Plan includes an introductory section (Section 1), a summary of information obtained from prior investigations (Section 2), pertinent coordination items when work is scheduled for impacted areas (Section 4) and a description of procedures that may be warranted for various site work activities (Section 3), a description of procedures to be implemented during specific site work activities (Sections 5 through 12), and a description of reports and records that should be maintained for work completed at the subject site (Section 13). Appendices are included to provide supplemental information that is considered pertinent to the items described in the Soil Management Plan and are referenced where applicable.

This Soil Management Plan is organized in a manner to allow for site representatives to review and identify applicable measures to be implemented for different areas of work and types of work activities being performed. Section 1.4 describes different areas of work and the associated work activities that may be applicable. A Soil Management Plan Flow Chart, contained in Appendix B, is provided to outline tasks to be implemented for management of existing on-site soil and soil that may be imported for use as fill.

### **1.4 Applicability**

#### ***1.4.1 Areas to be Developed with Buildings/Structures***

Areas to be developed with buildings or other structures will require appropriate soil management procedures, in association with the excavation, backfill, and grading for the



installation of foundation systems, and with the construction of slabs-on-grade for buildings. Following is a summary of the soil management procedures to be implemented, with reference to applicable sections of this Soil Management Plan.

- Excavation for foundations in areas of known/suspect impacts from ash: Refer to **Section 5** and **Item A** of Soil Management Plan Flow Chart (Appendix B)
- Excavation for foundations in areas without known/suspect impacts from ash: Refer to **Section 6** and **Item B** of Soil Management Plan Flow Chart (Appendix B)
- Backfill in areas of construction: Refer to **Section 11** and **Items E and F** of Soil Management Plan Flow Chart (Appendix B)
- Construction of slabs-on-grade for buildings: Refer to **Section 9** and **Item E** of Soil Management Plan Flow Chart (Appendix B)

#### **1.4.2 Areas to be Developed with Asphalt/Concrete Surfaces**

Areas to be developed with asphalt or concrete surfaces (e.g., driveways, parking lots, walking paths) will require appropriate soil management procedures, in association with the excavation, backfill, and grading prior to installation of the asphalt or concrete surface cover. Following is a summary of the soil management procedures to be implemented, with reference to applicable sections of this Soil Management Plan.

- Material management and site preparation in areas of known/suspect impacts from ash: Refer to **Section 5** and **Item A** of Soil Management Plan Flow Chart (Appendix B)
- Excavation and site preparation in areas without known/suspect impacts from ash: Refer to **Section 6** and **Item B** of Soil Management Plan Flow Chart (Appendix B)
- Backfill in areas of construction: Refer to **Section 11** and **Items E and F** of Soil Management Plan Flow Chart (Appendix B)

#### **1.4.3 Areas to be Developed with Lawn/Landscaping**

Areas to be redeveloped with lawn or landscaping will require appropriate soil management procedures, in association with the excavation, backfill, grading, and soil cover system installation. Following is a summary of the soil management procedures to be implemented, with reference to applicable sections of this Soil Management Plan.

- Material management and site preparation in areas of known/suspect impacts from ash: Refer to **Section 5** and **Item A** of Soil Management Plan Flow Chart (Appendix B)
- Excavation and site preparation in areas without known/suspect impacts from ash: Refer to **Section 6** and **Item B** of Soil Management Plan Flow Chart (Appendix B)
- Backfill and soil cover system in areas of lawns and landscaping: Refer to **Sections 8 and 11** and **Items E and F** of Soil Management Plan Flow Chart (Appendix B)

#### **1.4.4 Areas to Remain Wooded**

Areas of the subject site that are currently wooded and are planned to remain wooded will not require implementation of specific soil management procedures at this time. In the event that these areas are scheduled for redevelopment in the future, or if there are any ground intrusive activities performed, appropriate soil management procedures should then be provided.

### **1.4.5 Areas to be Dredged**

Management of areas where sediment is planned for dredging is described in general for this Soil Management Plan; however, additional planning and coordination with the New York State Department of Environmental Conservation (NYSDEC), United States Army Corps of Engineers (USACE), and other applicable regulatory agencies will be necessary prior to performing the dredging operations and the handling and reuse or disposal of dredged sediments. Refer to **Section 10** and **Item D** of the Soil Management Plan Flow Chart (Appendix B).

## **2.0 BACKGROUND INFORMATION AND AREAS OF CONCERN**

### **2.1 Summary of Previous Investigations**

ATL performed sediment sampling at the subject site in June 2019 and August 2020, and subsurface investigation and soil sampling in September 2020 and October 2022. Additionally, ATL was provided with a draft Phase II Environmental Site Assessment report prepared by Bergmann Associates for the Port of Albany and dated April 6, 2017.

The sediment sampling conducted by ATL in June 2019 included the advancement of 5 cores, and the sediment sampling conducted by ATL in August 2020 included the advancement of 10 cores. The cores were advanced in the areas scheduled for dredging as part of planned redevelopment for the site. Sediment samples were collected from the core locations and submitted for subsequent laboratory analysis. Laboratory analysis parameters for the June 2019 sampling event were selected to include compounds described in NYSDEC Technical and Operational Guidance Series (TOGS) 5.1.9, whereas the samples collected in August 2020 were analyzed for parameters to evaluate potential reuse options in addition to the NYSDEC TOGS 5.1.9 parameters. A complete summary of findings for the previously completed sediment sampling and analysis are provided in ATL Report No. CD4644CE-01-07-19, dated July 15, 2019, ATL Report No. CD4644CE-01-07-19 Addendum 1, dated August 2, 2019, and ATL Report No. AT5596CE-03-09-20 dated September 24, 2020.

The subsurface investigation and soil sampling conducted by ATL in September 2020 included the advancement of 45 probes. The probes were advanced in accessible areas throughout the site, to assess the presence or absence of ash material. Additionally, soil samples were collected from locations without ash material to evaluate potential reuse options for consideration during site redevelopment. The subsurface investigation identified multiple locations where ash material is present, but did not identify obvious visual or olfactive evidence of petroleum or chemical-related contamination. Soil samples were collected from areas without ash material, including 22 samples for analysis of volatile organic compounds (VOC), and 11 samples for analysis of semi-VOC, polychlorinated biphenyls (PCB), pesticides, metals, and cyanide. With a few exceptions, laboratory analysis results for the soil samples collected from areas without ash material were below 6 NYCRR Part 360 fill material pre-determined beneficial use criteria and below NYSDEC Unrestricted Use Soil Cleanup Objectives (SCO) listed in 6 NYCRR Part 375 and/or NYSDEC CP-51 document. A general summary of the findings for the subsurface investigation previously completed by ATL is provided as Table C-1 in Appendix C. A complete summary of findings is provided in ATL Report No. AT5596CE-04-10-20, dated October 22, 2020.

The subsurface investigation and soil sampling conducted by ATL in October 2022 included the advancement of 19 probes for sampling to provide additional data relative to contaminants of concern, and 8 probes for installation of soil vapor sampling points. This subsurface investigation encountered similar conditions as other prior investigations, in addition to encountering an area with apparent impact from a weathered petroleum product. Field measurements during the October 2022 subsurface investigation indicate an affected area of approximately 250 feet by 90 feet. Depths of impacted soil were consistently observed at 1 to 5 feet below ground surface, with the contamination confined by an underlying clay layer. The estimated volume of affected soil for this area is 3,300 cubic yards. It is planned that this affected area will be managed under a remedial action work plan to be submitted separately from this Soil Management Plan.

The Phase II ESA conducted by Bergmann Associates in February 2017 included the advancement of 12 test pits and 8 borings, and the installation of temporary monitor wells at 3 of the boring locations. Information in the draft Phase II ESA report indicates that coal ash was observed throughout the depths for 3 of the test pits and a fourth test pit exhibited the presence of railroad ties covered in a black tar-like substance at depths of 8 to 12 feet below ground surface. Of the 8 borings advanced during this investigation, 7 exhibited evidence of coal ash. A surface soil sample was collected from the initial 2 inches for each boring. Subsurface soil samples were also collected from the borings at varying depths. There were 3 temporary monitor wells installed for collection of groundwater samples. The soil and groundwater samples were laboratory analyzed for VOC, semi-VOC, cyanide, pesticides, PCB, and target compound list (TCL) metals. With the exception of metals, target compounds for the referenced analytical parameters were non-detect for each of the soil and groundwater samples. A general summary of the findings for the subsurface investigation previously completed by Bergmann Associates is provided as Tables C-2 and C-3 in Appendix C. The report prepared by Bergmann Associates and dated April 6, 2017, should be referenced for additional details pertaining to the findings of the subsurface investigation.

## **2.2 Known Locations of Impacted Soil**

Data and information from the previous subsurface investigation activities indicates that ash material is present at the site in a widespread condition. The ash material has been predominantly observed on the west side of the subject site. No obvious visual or olfactive evidence of petroleum or chemical-related contamination was observed at the locations investigated.

The Aerial Overview of Affected Locations, contained in Appendix D, shows approximate locations for the borings, test pits, and probes previously advanced at the subject site, along with an indication of which exhibited the presence of ash material. The referenced drawing also shows an approximate delineation of areas where ash material is expected to be present, areas where ash material is not expected, and areas that are considered to potentially contain ash material. The areas shown on the drawing are based on existing available data and not intended to represent an exact delineation for the locations of ash material.

### 3.0 COORDINATION OF WORK

#### 3.1 Roles and Responsibilities

The soil management procedures described herein should be coordinated and conducted by firms and individuals who are familiar with the conditions of the Soil Management Plan, have an understanding of the known or suspected conditions in different areas of the subject site, and have related experience and capabilities to implement the applicable work activities. While the Owner of the property has responsibility for the implementation of the Soil Management Plan, it is anticipated that performance of work activities associated with the Soil Management Plan would be coordinated and completed by design professionals, contractors, and environmental consultants who are retained by the Owner. The following table provides a summary of the primary roles and responsibilities for implementation of the Soil Management Plan.

Role	Responsibilities
Owner	<ul style="list-style-type: none"> <li>• Retain and coordinate with Design Professionals, Contractors, and Environmental Consultants for performance of site work pursuant to conditions of the Soil Management Plan</li> <li>• Maintain site records and documentation for work completed pursuant to Soil Management Plan</li> </ul>
Design Professionals	<ul style="list-style-type: none"> <li>• Incorporate applicable provisions of the Soil Management Plan into design plans and specifications for planned site redevelopment</li> <li>• Coordinate with Owner, Contractors, and Environmental Consultants during design and construction phases to confirm work is completed as planned</li> </ul>
Contractors	<ul style="list-style-type: none"> <li>• Correspond with NYSDEC (and other regulatory agencies, as applicable) for notifications of work activities</li> <li>• Perform site work activities, including, but not limited to, excavation, grading, placement and compaction of backfill, dust control, groundwater management, soil cover system installation, vapor barrier system installation, construction, and waste transport and disposal</li> </ul>
Environmental Consultants	<ul style="list-style-type: none"> <li>• Provide guidance and assistance with implementation of the Soil Management Plan</li> <li>• Correspond with NYSDEC (and other regulatory agencies, as applicable) to discuss clarifications or modifications to conditions of the Soil Management Plan</li> <li>• Conduct monitoring and soil screening during performance of work activities that affect impacted or contaminated soil</li> <li>• Conduct air monitoring during ground intrusive activities that affect impacted or contaminated soil</li> <li>• Perform soil sampling and laboratory analysis for waste materials, fill materials, and excavation areas</li> </ul>

#### 3.2 Project Notifications

Within 14 days, and no less than 3 days, prior to commencing work activities that may affect areas of the subject site that are impacted with ash, the NYSDEC should be notified of the planned work. This notification should be performed by the Owner and/or

Contractor performing the site work. The Design Professional and Environmental Consultant should also be similarly notified.

### **3.3 Spill Reporting/Administration**

The subject site is known to have areas impacted with ash and related debris. An area impacted with an apparent weathered petroleum product was also encountered during the recent subsurface investigation in October 2022. The affected area was reported as a spill (NYSDEC Spill No. 2206029) and will be addressed pursuant to a remedial action work plan, to be submitted separate from this Soil Management Plan. In the event that other areas of petroleum/chemical-related contamination are encountered during site work, the NYSDEC must be notified in the event that petroleum- or chemical-related contaminated soil is discovered on the project site. This notification will need to be provided directly to the NYSDEC Spill Hotline (telephone number 1-800-457-7362).

## **4.0 GENERAL SITE WORK AND SOIL MANAGEMENT PLAN CONDITIONS**

### **4.1 Health and Safety**

In addition to construction site health and safety, site personnel should be aware of the contaminants of concern associated with the ash material (metals) and utilize appropriate control methods, personal protective clothing, and personal protective equipment during the handling and management of impacted materials. Contractors working at the subject site should perform work pursuant to a health and safety plan that is specific to their scope of work and associated hazards or potential hazards.

### **4.2 Groundwater Removal and Management (If Applicable)**

Based on conditions observed during prior subsurface investigation and the planned site redevelopment to include mostly fill at the site rather than excavation, it is not expected that groundwater management would be applicable. In the event that there is significant groundwater inflow in a zone of contaminated soil, a vacuum truck should be provided to remove the infiltrated groundwater as the excavation progresses or at the completion of excavation activities. Alternatively, groundwater can be pumped into a frac tank(s) or other appropriate receptacles and temporarily stored on-site prior to on-site treatment and discharge or transfer and disposal off-site.

### **4.3 Dust Control and Air Monitoring**

Fugitive dust and vapors should be minimized or mitigated during the excavation and handling of contaminated soil, if encountered. In the event that particulates and/or vapors represent a potential concern for the work area and/or surrounding areas, particulates and/or vapors should be monitored during ground intrusive activities associated with contaminated soil by setting up real-time instrumentation at locations upwind and downwind of the project area. Assessment for airborne dust would be performed using particulate monitors capable of measuring particulate matter less than 10 microns (PM10). Assessment for vapors (applicable to areas where petroleum- or chemical-related contamination is encountered) would be performed using a photoionization detector (PID) to screen the ambient air for the measurable presence of VOC.

General guidelines for dust control and air monitoring are presented below. A site-specific Community Air Monitoring Plan (CAMP) is being prepared separate from this Soil

Management Plan and more specifically define requirements for the planned site redevelopment and construction project.

If air monitoring for particulates is conducted, an action level of 0.15 milligrams per cubic meter ( $\text{mg}/\text{m}^3$ ) should be used for PM10 concentrations associated with the project work area. If screening is performed for ambient airborne VOC concentrations, an action level of 5 parts per million (ppm) should be used for the project work area. These action levels are consistent with the NYSDEC DER-10 "Technical Guidance for Site Investigation and Remediation" and the New York State Department of Health (NYSDOH) "Generic Community Air Monitoring Plan."

In the event that the PM10 action level is exceeded for the work site (downwind monitoring station), the upwind background level should be immediately confirmed and it should be determined whether the work site (downwind) level exceeds the upwind background by greater than  $0.1 \text{ mg}/\text{m}^3$ . For any such exceedance, work activities should temporarily cease and dust suppression techniques should be implemented. Dust suppression techniques may include some or all of the following (as cited from Appendix 1B of the NYSDEC DER-10):

- Applying water on haul roads
- Wetting equipment and excavation faces
- Spraying water on buckets during excavation and dumping
- Hauling materials in properly tarped or watertight containers
- Restricting vehicle speeds to 10 mph
- Covering excavated areas and material after excavation activity ceases
- Reducing the excavation size and/or number of excavations

In the event that the VOC action level is exceeded for the work site (downwind monitoring station), the upwind background level should be immediately confirmed and it should be determined whether the work site (downwind) level exceeds the upwind background by greater than 5 ppm. For any such exceedance, work activities should temporarily cease while monitoring continues. If the concentrations readily decrease below 5 ppm over background, work activities can resume. If the concentrations do not readily decrease and a definitive source can not be eliminated, the work site and on-site work activities would require further evaluation to determine an appropriate course of action.

#### **4.4 Personnel and Equipment Decontamination**

Equipment that is in contact with contaminated soil should be decontaminated, as necessary to prevent cross-contamination to other areas. Equipment and tools can be decontaminated by initially scrubbing the bulk material from the item, cleaning with a phosphate-free detergent and tap water wash, rinsing with tap water, and rinsing with distilled water. In order to contain decontamination liquids, a decontamination pad, of sufficient size to accommodate the affected portions of equipment, can be constructed using double layers of polyethylene sheeting as a base and a suitable material (i.e., lumber, clean soil, hay bales) for a perimeter berm. A more durable setup would be necessary if larger, heavier items need to be decontaminated. The polyethylene sheeting should be wrapped around the perimeter berm. Wastewater generated from decontamination activities shall be disposed of pursuant to applicable local, state and federal requirements.

## **5.0 MATERIAL MANAGEMENT IN AREAS IMPACTED WITH ASH AND DEBRIS**

### **5.1 Soil Removal and Management Options**

The primary option for removed soil impacted with ash is to reuse on-site in locations where ash material already exists and is intended to remain with an applied soil cover system (reference Section 8). The current site redevelopment plans include a substantial amount of fill activities and it is expected that all removed soil with ash can be reused on-site. In the event that excavated soil impacted with ash needs to be removed from the site, the waste soil will require disposal at a permitted facility that can accept this type of industrial waste (reference Section 12).

In consideration of the ash materials being widespread at various locations of the subject site, and the soil cover system that will be implemented as described in other sections of this Soil Management Plan, the areal extent of disturbance for ash and debris wastes will be only as necessary to complete the scheduled site redevelopment. It is intended that the depths of removal be similarly limited to scheduled depths of excavations; however, if existing available information suggests that waste ash/debris exists at only a limited distance (generally considered to be within 3 feet) below scheduled depths of excavations, removal of the additional material should be conducted to limit the amount of material that would remain below permanent structures or site features to be constructed.

Removed soil should be field examined for the visual and/or olfactive indicators of the presence of ash and debris materials or the potential presence of petroleum- or chemical-related impacts. In the event that petroleum- or chemical-related impacts are identified, procedures described in Section 7 should be implemented.

If applicable, removed soil should be segregated between soil that is impacted with ash and overburden soil that does not exhibit visual evidence of these wastes. The impacted soil should be moved and placed directly in locations where ash material already exists and will remain (reference Section 11.1), directly loaded for subsequent transport and disposal (reference Section 12), or temporarily stockpiled prior to final disposition (reference Section 5.2). The overburden soil can be processed for reuse on-site, provided applicable conditions are satisfied (reference Section 11.2).

### **5.2 Temporary Stockpiles for Impacted Soil**

If impacted soil is stockpiled on-site prior to handling and management for final disposition, the selected location(s) should be an area not susceptible to flooding or inundation of water during precipitation events, readily accessible to equipment that will be utilized for loading and hauling the material, and located away from stormwater or site drainage components. Any contaminated soil stockpile would need to be placed on and covered with 6-mil polyethylene sheeting or other comparable impervious material that can be readily removed and disposed of. The following items should be applicable to stockpiles for contaminated soil materials.

- Polyethylene sheeting or other impervious membrane used for the base of the soil stockpile should be placed with sheets overlapping a minimum of 1 foot.
- The base of the soil stockpile should be bermed at the perimeter to contain the soil stockpile and potential runoff during precipitation events. The berm materials, which can be comprised of mounds of clean soil material, hay bales, lumber, or other readily available suitable materials, should be placed along the

perimeter and wrapped with the polyethylene sheeting or other impervious membrane that is used for the base of the soil stockpile. To minimize extraneous handling of materials and the size of the completed soil stockpile area, the berm perimeter can initially be constructed along 2 sides, and the remaining 2 sides can be constructed after all soil material is placed in the stockpile or temporarily bermed at the end of each workday.

- The height and slopes of the soil stockpile should be limited such that slope stability is not compromised during storage or the loading process.
- The soil stockpile should be covered with the polyethylene sheeting upon placement of all impacted soil material or at the end of each workday. Seams should be overlapped a minimum of 1 foot. The stockpile cover should be sufficiently weighted to contain the stored soil and resist damage from wind. Materials used to weigh down and stabilize the stockpile cover should consist of readily available materials that will not tend to damage the cover upon placement (e.g., clean soil material, sand bags, tires).
- Any temporary on-site soil stockpiles should be periodically inspected to ensure that material continues to be contained and is not released to the surrounding environment. The temporary on-site soil stockpiles will need to be properly protected and maintained until removal and off-site disposal. Polyethylene sheeting should be repaired or replaced as needed.
- Water from precipitation events that ponds on the surface of the stockpile cover should be removed upon discovery. The ponded water can be discharged on-site provided there is no contact with the petroleum-contaminated soil, and provided such activities are compliant with any stormwater discharge permits that may be applicable for the site or active construction work. Water that contacts the petroleum-impacted soil shall be properly containerized and managed as impacted waste water.
- Stockpiles with impacted soil should not remain on-site in excess of 60 days.

### **5.3 Excavation Monitoring and Soil Sampling**

A representative of the Environmental Consultant should be on-site during excavation activities in the known or suspect areas of ash materials, to examine exposed soil for the presence of ash. The on-site representative should assist with determinations for the segregation of soil material that is considered relatively clean overburden to be reused and soil material that would be classified as contaminated for relocation and placement in areas with ash to remain or for off-site disposal. The on-site representative would also be available to provide guidance relative to the management of the contaminated subsurface materials.

Since it is planned to manage ash materials in-place for various locations at the subject site, soil samples are not proposed for excavation area(s) where waste ash/debris is removed, unless other potential contaminants of concern are encountered or suspected. If soil samples are to be collected from these excavation areas, the Environmental Consultant should coordinate with the NYSDEC to confirm analytical parameters, sampling locations, and quantity of samples.

### **5.4 Soil Reuse or Disposal**

Soil contaminated with ash that is planned to be reused on-site in locations of existing ash to remain should be managed pursuant to Sections 5.1 and 11.1. Overburden soil scheduled for reuse should be managed pursuant to procedures described in Section



11.2. Waste soil materials scheduled for disposal should be managed pursuant to procedures described in Section 12.

## **6.0 EXCAVATION IN NON-IMPACTED AREAS**

### **6.1 Soil Removal and Stockpile**

Soil that is excavated from areas without known or suspect impacts from ash can be removed and handled pursuant to routine construction and site work methods. Contractors performing the excavation work should be cognizant of the potential for impacted soil and should visually monitor the soil as removed to determine if it may be potentially affected. If ash material is identified, the excavation and soil management procedures should transition to the methods described in Section 5. In the event that petroleum- or chemical-related impacts are identified, procedures described in Section 7 should be implemented.

### **6.2 Excavation Monitoring**

As indicated in Section 6.1, a representative of the Contractor should examine exposed soil for visual and/or olfactive indicators of potential contamination. If suspect impacted materials are encountered, a representative of the Environmental Consultant should be on-site for further assessment and monitoring in the affected area.

Unless suspect contamination is encountered, soil samples are not proposed for the excavations. If soil samples are to be collected from these excavation areas, the Environmental Consultant should coordinate with the NYSDEC to confirm analytical parameters, sampling locations, and quantity of samples.

### **6.3 Soil Reuse or Disposal**

The excavated soil that is scheduled for reuse should be managed pursuant to procedures described in Section 11. In the event that the soil materials need to be disposed of, transport and disposal should be performed pursuant to procedures described in Section 12.

## **7.0 EXCAVATION IN AREAS OF PETROLEUM/CHEMICAL SPILLS**

### **7.1 Soil Removal and Stockpile**

An isolated area of soil impacted with apparent weathered petroleum was encountered during the October 2022 subsurface investigation and soil sampling. This area will be addressed via excavation and off-site disposal, with a remedial action work plan to be submitted separately from this Soil Management Plan. Petroleum-contaminated soil in other areas, if encountered, will be segregated and not considered for on-site reuse.

If petroleum- or chemical-related contamination is encountered during site work, a spill will need to be reported (reference Section 3.3) and contaminated soil will need to be removed for disposal. The areal extent and depths of excavation for material affected by a spill should be inclusive of the entirety of the contaminated material, if feasible and practical. If the affected materials cannot be completely removed, an alternate approach to site remediation should be coordinated through the NYSDEC.

Excavated soil should be field examined for the visual and/or olfactive indicators of the petroleum- or chemical-related impacts, and field screened for the measurable presence of VOC with a photoionization detector (PID), equipped with the 10.6 eV lamp. In general, soil exhibiting obvious visual or olfactive evidence of contamination and/or greater than 10 ppm via ambient PID screening should be removed from the excavation, and processed for subsequent disposal. Overburden soil that does not exhibit these characteristics should be stockpiled on-site for subsequent sampling and evaluation of reuse options.

For petroleum-contaminated soil that is stockpiled on-site, the selected location(s) should be an area not susceptible to flooding or inundation of water during precipitation events, readily accessible to equipment that will be utilized for loading and hauling the material, and located away from stormwater or site drainage components. Any contaminated soil stockpile would need to be placed on and covered with 6-mil polyethylene sheeting or other comparable impervious material that can be readily removed and disposed of. The following items should be applicable to stockpiles for contaminated soil materials.

- Polyethylene sheeting or other impervious membrane used for the base of the soil stockpile should be placed with sheets overlapping a minimum of 1 foot.
- The base of the soil stockpile should be bermed at the perimeter to contain the soil stockpile and potential runoff during precipitation events. The berm materials, which can be comprised of mounds of clean soil material, hay bales, lumber, or other readily available suitable materials, should be placed along the perimeter and wrapped with the polyethylene sheeting or other impervious membrane that is used for the base of the soil stockpile. To minimize extraneous handling of materials and the size of the completed soil stockpile area, the berm perimeter can initially be constructed along 2 sides, and the remaining 2 sides can be constructed after all soil material is placed in the stockpile or temporarily bermed at the end of each workday.
- The height and slopes of the soil stockpile should be limited such that slope stability is not compromised during storage or the loading process.
- The soil stockpile should be covered with the polyethylene sheeting upon placement of all impacted soil material or at the end of each workday. Seams should be overlapped a minimum of 1 foot. The stockpile cover should be sufficiently weighted to contain the stored soil and resist damage from wind. Materials used to weigh down and stabilize the stockpile cover should consist of readily available materials that will not tend to damage the cover upon placement (e.g., clean soil material, sand bags, tires).
- Any temporary on-site soil stockpiles should be periodically inspected to ensure that material continues to be contained and is not released to the surrounding environment. The temporary on-site soil stockpiles will need to be properly protected and maintained until removal and off-site disposal. Polyethylene sheeting should be repaired or replaced as needed.
- Water from precipitation events that ponds on the surface of the stockpile cover should be removed upon discovery. The ponded water can be discharged on-site provided there is no contact with the petroleum-contaminated soil, and provided such activities are compliant with any stormwater discharge permits that may be applicable for the site or active construction work. Water that contacts the petroleum-impacted soil shall be properly containerized and managed as impacted waste water.
- Stockpiles with impacted soil should not remain on-site in excess of 60 days.

## **7.2 Excavation Monitoring and Soil Sampling**

A representative of the Environmental Consultant should be on-site during excavation activities in the areas affected by a petroleum- or chemical-related spill, to examine exposed soil for visual and/or olfactive indicators of petroleum- or chemical-related impacts. Additionally, field screening for the measurable presence of VOC should be performed at the time of the excavation activities, using a portable PID, equipped with a 10.6 eV lamp.

The on-site representative should assist with determinations for the segregation of soil material that is considered relatively clean overburden to be reused and soil material that would be classified as contaminated for off-site disposal. The on-site representative would also be available to provide guidance relative to the management of the contaminated subsurface materials.

Post-excavation soil samples should be collected from the walls and floor of the excavation area(s) where petroleum- or chemical-contaminated soil is removed. The quantities of soil samples to be collected from these excavation areas should be selected pursuant to the following criteria:

- For excavations with a perimeter of less than 20 feet, 1 bottom and 1 sidewall sample should be collected.
- For excavations with a perimeter between 20 and 300 feet, samples from sidewalls should be collected at a frequency of 1 per 30 linear feet and samples from the bottom should be collected at a frequency of 1 per 900 square feet.
- For excavations with a perimeter of greater than 300 linear feet, the quantity of samples to be collected should be coordinated through the NYSDEC, or selected pursuant to the same criteria specified for an excavation perimeter between 20 and 300 feet.

The post-excavation soil samples should be laboratory analyzed for VOC, in accordance with EPA Method 8260; and semi-VOC, in accordance with EPA Method 8270 (base/neutral extractables).

## **7.3 Soil Disposal**

Waste soil materials scheduled for disposal should be managed pursuant to procedures described in Section 12.

## **8.0 SOIL COVER SYSTEM INSTALLATION**

A soil cover should be installed in any areas of the site where ash material is to remain. The following criteria should be applicable to the soil cover system.

- Where otherwise not covered by a permanent structure, concrete, pavement, or other impervious material, the upper 6 inches of the soil cover should be suitable to sustain growth of appropriate vegetation at the ground surface. For this site, the coal ash areas with soil cover system will primarily have an impervious material or permanent structure at the surface.

- A minimum of 2 feet of soil cover should be placed above the ash material. This is consistent with NYSDOH regulations that were applicable to landfill closure at the time when the landfill ceased placing waste at the site (prior to 1970).
- The upper 2 feet of the soil cover should not have concentrations of contaminants that exceed the Restricted Residential Soil Cleanup Objectives (SCO) set forth in 6 NYCRR Part 375-6.
- Fill that is placed at a depth below the upper 2 feet of soil cover should not have concentrations of contaminants that exceed the Commercial SCO set forth in 6 NYCRR Part 375-6.
- A demarcation layer should be placed between the soil cover layer and underlying impacted soil. For this site, a geotextile filter fabric is planned for installation between the graded site and imported fill for cover. This geotextile filter fabric will serve as the demarcation layer.
- In the event that the soil cover system is breached, penetrated, or temporarily removed, restoration to original conditions (or equivalent) should be performed. In the event that the soil cover system is breached, penetrated, or temporarily removed, restoration to original conditions (or equivalent) should be performed within 48 hours.
- Areas with a soil cover should be inspected at least annually, to assess existing conditions and determine if any restoration or repairs are necessary. Inspections should also be performed after severe weather events or significant site operations that may have adversely affected the soil cover system. Reference Section 13.0 for additional details pertaining to inspections.

Soil cover system will occur as part of the construction project for the Port of Albany expansion onto the Beacon Island site. Measures shall be taken to ensure that coal ash does not remain exposed for extended periods of time, thereby increasing risk of contamination migration. A cover over all exposed coal ash shall occur at the end of each day. The cover material can consist of either a standard stabilization measure outlined in the SWPPP, such as straw bale, mulch, wood chips/mulch, or a tarp. The intent will be to ensure the coal ash is reasonably covered at the end of each day to prevent migration.

## **9.0 VAPOR BARRIER SYSTEM INSTALLATION**

A vapor barrier system could be considered as an option for buildings that are constructed at the subject site, especially for buildings that would be occupied on a routine basis. While risks with vapor migration from contaminants associated with ash material is relatively low, installation of a vapor barrier system is generally an inexpensive addition to the construction of a new building. A vapor barrier system could consist of a gas permeable layer (i.e., crushed stone) and a soil gas retarder membrane (i.e., polyethylene or polyolefin sheeting) between the gas permeable layer and concrete slab. Soil gas collector pipes could also be installed in the gas permeable layer, and established as a passive system, active system, or passive with capability to be transitioned to an active system. If the Owner opts for installation of a vapor barrier system for buildings, the vapor barrier system should be incorporated into design plans and specifications for the specific building(s) being constructed.

## **10.0 DREDGING OF SEDIMENT**

### **10.1 Sediment Removal and Management**

Dredging of sediment would need to be conducted pursuant to conditions of applicable permits, as determined through the joint application for permits process with state agencies and the USACE. A dredging plan should also be developed to identify the dredging methods and management options. Direct coordination with the NYSDEC and reference to NYSDEC TOGS 5.1.9 would be necessary to ensure that necessary criteria for the dredging operations are addressed.

### **10.2 Sediment Reuse or Disposal**

6 NYCRR Part 360.12(c)(1)(iv) describes conditions for pre-determined beneficial use of navigational dredged material; however, laboratory analysis data for previously collected samples at the site are not indicative of the sediment material meeting the requisite criteria. For navigational dredged material that does not meet the pre-determined beneficial use criteria, a petition for a case-specific beneficial use determination (BUD) could be considered.

Laboratory analysis results from previously collected sediment samples have identified elevated concentrations for metals and PCB, and as such, dredged sediment (or affected portions thereof) should be disposed off-site at a permitted solid waste management facility. If reuse is desired for portions that may exhibit lesser contaminant concentrations, a plan would need to be developed for segregation and sampling and analysis, along with submitting the petition for a case-specific BUD to be approved by NYSDEC.

## **11.0 BACKFILL AND SOIL REUSE**

### **11.1 Soil Contaminated with Ash**

As indicated in Section 5.1, the primary option for excavated soil impacted with ash is to reuse on-site in locations where ash material already exists and is intended to remain with a soil cover system to be installed. Implementation of this option should include removal from the excavation area(s) and relocation for placement directly over other areas where ash material already exists. Specific locations and methods of placement and compaction should be detailed or described in the project redevelopment plans, dependent on locations of work, elevations of finished grades, and finished site conditions. A landfill reclamation work plan is being prepared and submitted to the NYSDEC, to address relocating coal ash material. Details pertaining to areas where the coal ash will be removed and relocated will be shown in the landfill reclamation work plan.

### **11.2 Suitable On-Site Soil**

Laboratory analysis results for samples previously collected from locations on the subject site not impacted with ash indicate that concentrations of contaminants generally do not exceed the 6 NYCRR Part 375 Commercial SCO and the 6 NYCRR Part 360 fill material pre-determined beneficial use criteria. This material should be suitable for on-site reuse below the upper 2 feet of soil cover. Additional sampling and analysis may be needed for areas not previously investigated and for previously sampled areas where exceedances were identified relative to the 6 NYCRR Part 375 Commercial SCO and/or the 6 NYCRR Part 360 fill material pre-determined beneficial use criteria. If additional sampling and

analysis is performed, the quantity of samples and analytical parameters should be selected pursuant to the Sampling and Analysis Schedule for Fill in Appendix E. No material exhibiting petroleum or other chemical contamination (e.g., strong odors, elevated PID readings, staining, etc.) will be reused on-site. Such materials will be handled and disposed off-site as described in Section 7.0

### **11.3 Imported Fill**

Fill material may need to be imported to the site, for use as the upper 1 foot of soil cover system or for other areas specific types of fill material. Imported fill material should be sampled and analyzed prior to delivery to the site, to confirm the material satisfies criteria established for use as a soil cover (reference Section 8) or criteria for use as general fill, restricted use fill, or limited use fill per 6 NYCRR Part 360.13. The quantity of samples and analytical parameters for imported fill should be selected pursuant to the Sampling and Analysis Schedule for Fill in Appendix E.

## **12.0 WASTE TRANSPORT AND DISPOSAL**

In the event that contaminated soil requires off-site disposal, the Contractor should provide for loading and transporting to a permitted solid waste management facility. Transport of waste materials will require use of trucks with applicable permits pursuant to 6 NYCRR Part 364 criteria. The disposal of waste soil materials should be documented via waste manifests and/or copies of waste disposal receipts.

Waste characterization soil samples should be collected and laboratory analyzed from the impacted material, to confirm whether the waste is hazardous or non-hazardous and to comply with criteria required by the planned disposal facility. The planned disposal facility should be contacted to verify capability to accept the type of waste(s) that may be generated (i.e., industrial waste), identify applicable laboratory analysis parameters and quantity of samples, and process waste profile documentation.

## **13.0 INSPECTIONS**

A comprehensive site-wide inspection shall be performed annually, to assess verify the soil cover system remains in a satisfactory condition. These annual inspections must be performed when the ground surface is visible (i.e., no snow cover), and shall be conducted by a representative who meets one of the following criteria:

- Qualified environmental professional per definition in 6 NYCRR Part 375
- A Professional Engineer (PE) or Professional Geologist (PG) who is licensed and registered in New York State
- A qualified person who reports directly to a PE or PG who is licensed and registered in New York State

Inspections shall be documented on a site-specific form, established for compiling sufficient information to the assess the following items, at a minimum:

- General site conditions at the time of the inspection
- An evaluation of the condition and continued effectiveness of the soil cover system
- Whether permanent stormwater management systems are working as designed

- A review of site records pertinent to the soil cover system (reference Section 14.0), and confirmation these are up to date
- Compliance with requirements of this Soil Management Plan

In addition to annual inspections, site-wide inspections will be necessary after the occurrence of severe weather event. The project SWPPP addresses requirements for inspection after a severe weather event. Conditions of the SWPPP shall be referenced for the criteria and documentation of these inspections. Reports and documentation for inspections after a severe weather event shall be reviewed during the annual inspections.

#### **14.0 REPORTING AND RECORDKEEPING**

Reports and records of site work should be maintained, as needed to document site conditions and soil management procedures that are completed. Reports and records to be maintained in association with this Soil Management Plan include, but may not be limited to, the following:

- As-built plans
- Waste manifests and/or disposal receipts for ash, soil, and groundwater
- Air monitoring data
- Excavation monitoring data
- Soil sampling and laboratory analysis data
- Site observation reports

**APPENDIX A**  
**Site Location Map**





**Site Location Map**

Drawn by:  
TSP

Scale:  
Not to scale

Project No.:  
AT5596

Date:  
May 2020

**Beacon Island Parcel  
Bethlehem, Albany County, New York**

***ATLANTIC TESTING LABORATORIES, Limited***

Albany, NY  
Poughkeepsie,

Binghamton, NY  
Syracuse, NY

Canton, NY  
Rochester, NY

Elmira, NY  
Utica, NY

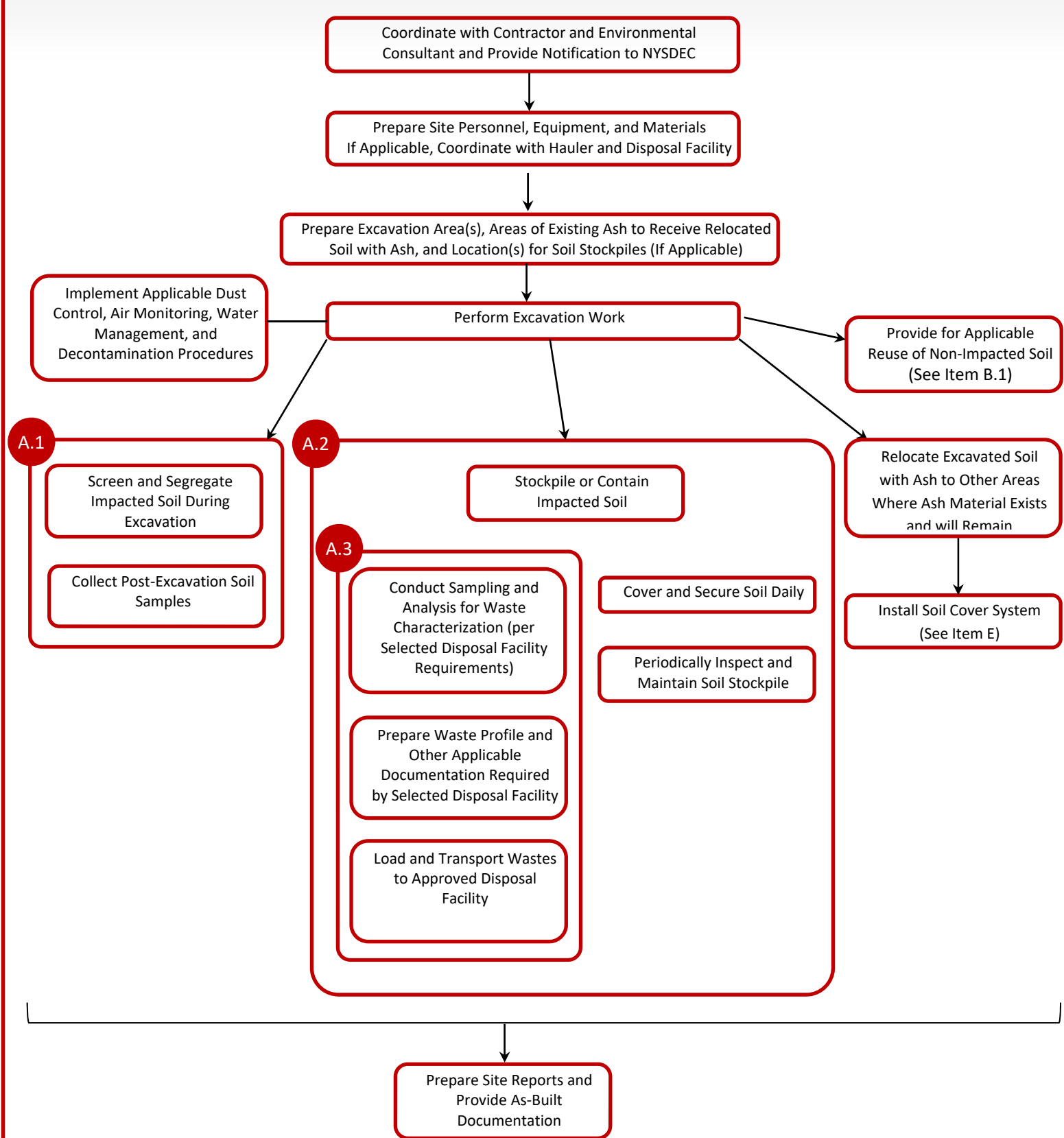
Plattsburgh, NY  
Watertown, NY

**APPENDIX B**

**Soil Management Plan Flow Chart**

**A**

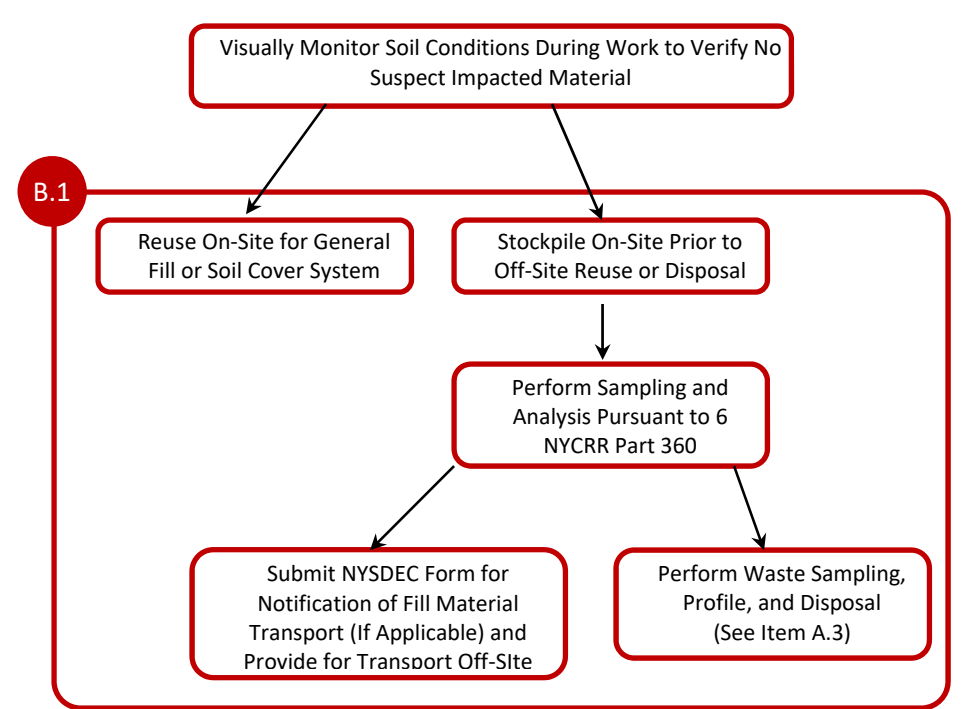
### Soil Excavation/Ground Disturbance Activities – Areas of Known/Suspect Impacts from Ash/Debris



1. If petroleum/chemical spill or contamination is encountered, implement soil management procedures described in Item C.
2. Reference Items D and E for procedures pertaining to site backfill/soil cover system and assessment for imported fill.

**B**

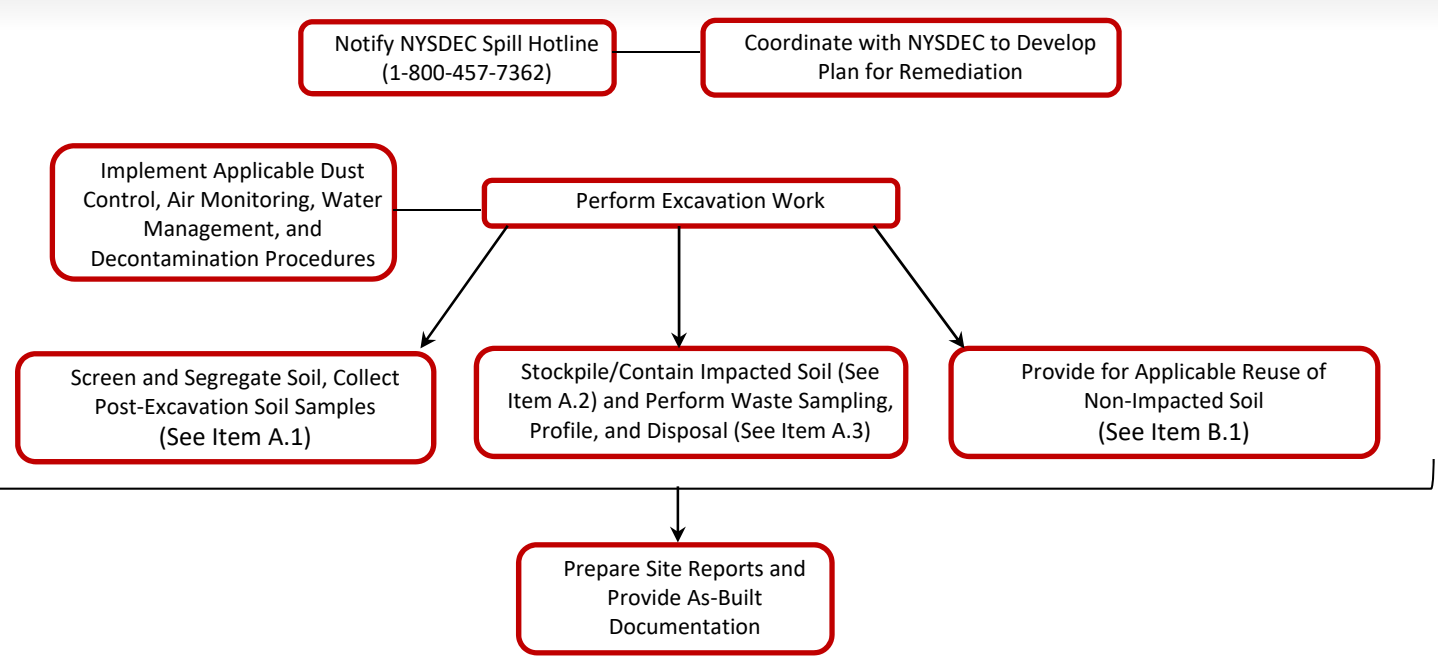
### Soil Excavation/Ground Disturbance Activities – Areas without Known/Suspect Impacts from Ash/Debris



1. If ash/debris material is encountered, implement soil management procedures described in Item A.
2. If petroleum/chemical spill or contamination is encountered, implement soil management procedures described in Item C.
3. Reference Items D and E for procedures pertaining to site backfill/soil cover system and assessment for imported fill.

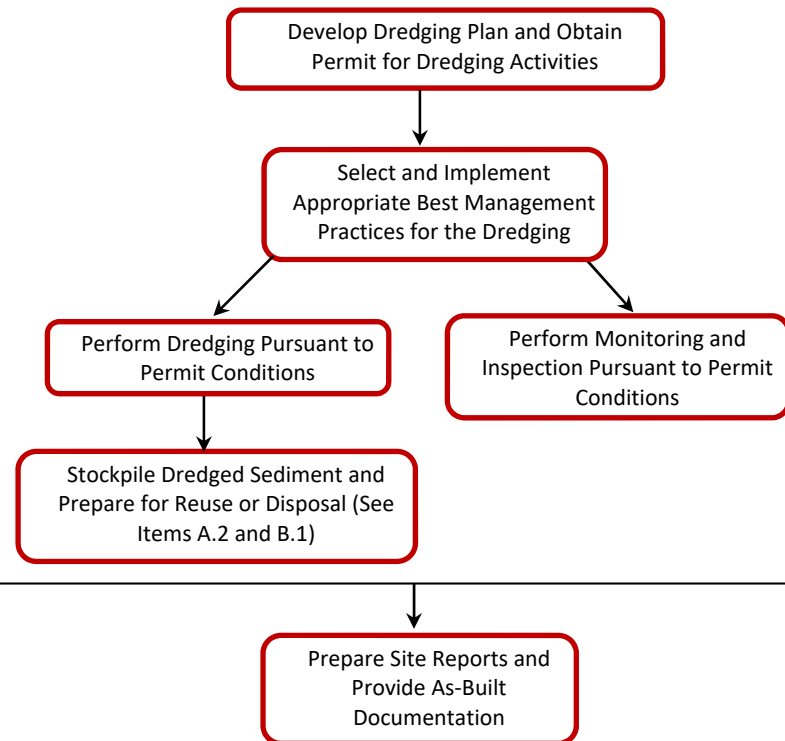
**C**

### Soil Excavation/Ground Disturbance Activities – Petroleum/Chemical Spill or Contamination Encountered



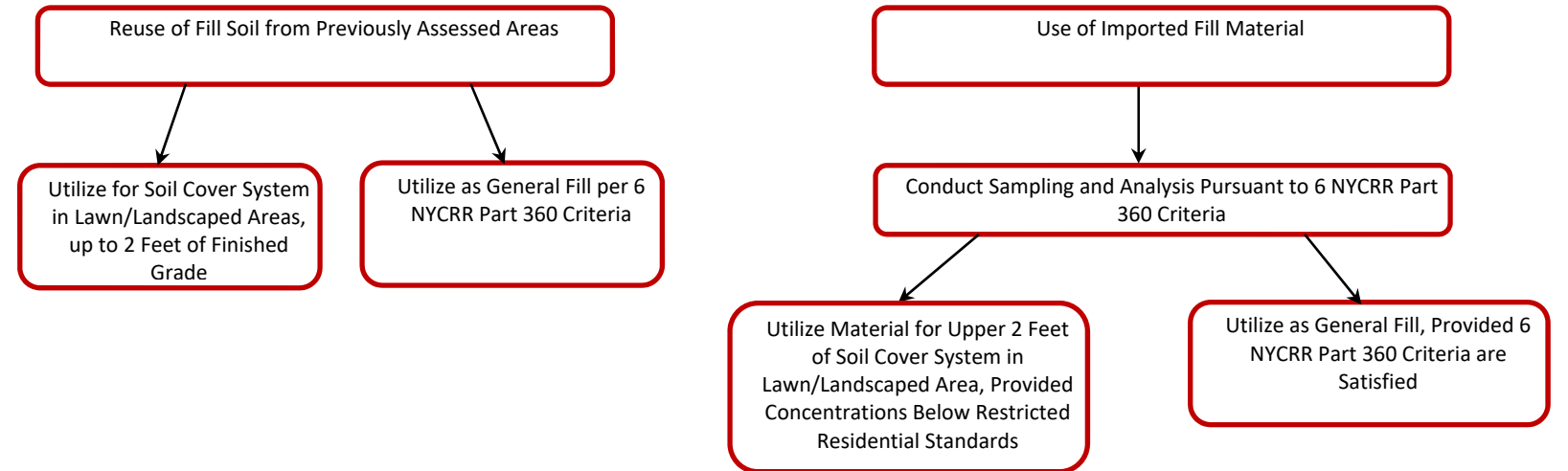
D

### Sediment Dredging



F

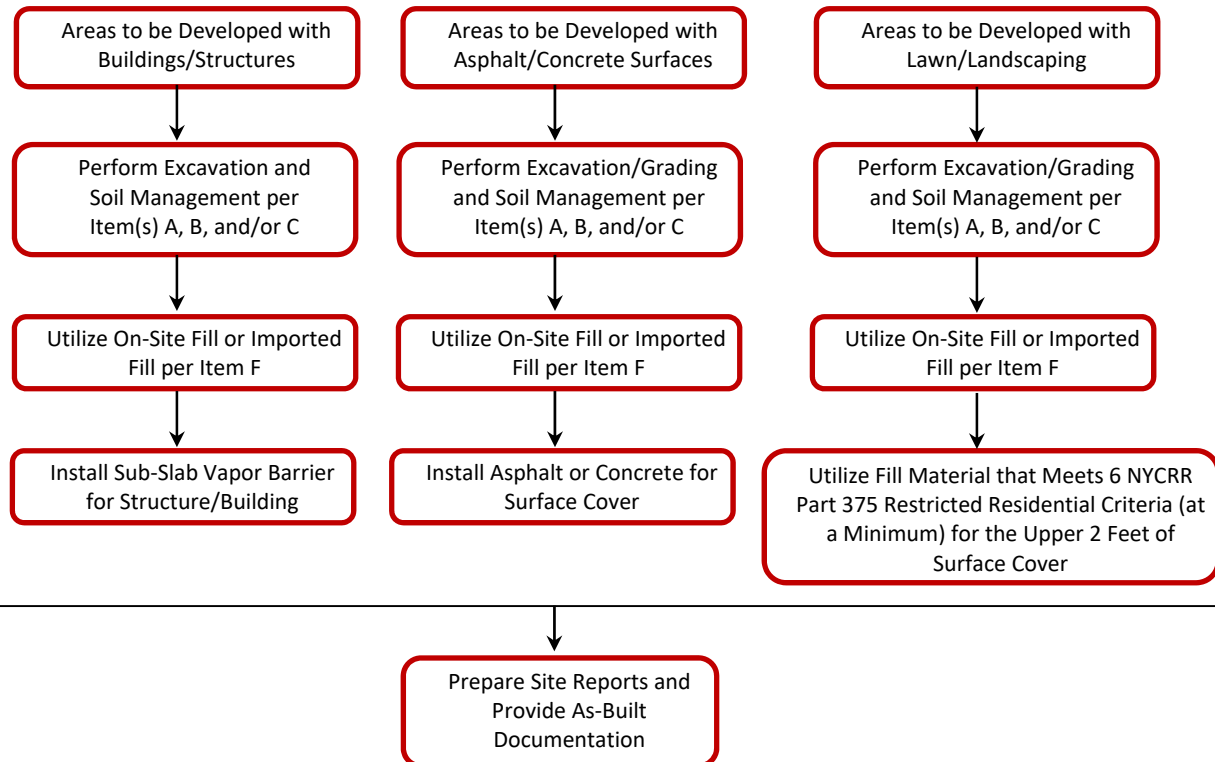
### Reuse of Previously Assessed On-Site Fill and Assessment and Use of Imported Fill



E

### Installation of Soil Cover System\*/ Ground Surface Cover Conditions

(\* 2 Feet of Suitable Cover Required for Any Areas of Ash to Remain)



## **APPENDIX C**

### **Summary of Data from Previous Investigations**

**Table C-1**

**Summary of Information from September 2020 Investigation – Probes**

**(Information Available from Environmental Subsurface Investigation and Soil Sampling Report prepared by ATL and dated October 22, 2020)**

<b>Probe ID**</b>	<b>Depth Advanced</b>	<b>Coal Ash/Debris Observations</b>	<b>VOC Field Screening (ppm)</b>	<b>Samples Collected for Analysis of VOC</b>	<b>Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO</b>	<b>Samples Collected for Analysis of Semi-VOC, PCB, Metals, Pesticides, and Cyanide</b>	<b>Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO</b>
B-1	20'	Coal Ash @ 0.5 – 2'	ND				
B-2	20'	Coal Ash @ 0' – 20'	ND				
B-3	20'	Coal Ash @ 0' – 20'	ND				
B-4	20'	Coal Ash @ 0' – 18'	ND				
B-5	20'		ND	Soil @ 0' – 5'		Soil @ 0' – 20' (Composite with B-6 and B-8)	Iron
B-6	20'		ND	Soil @ 10' – 15'		Soil @ 0' – 20' (Composite with B-5 and B-8)	See B-5
B-7	20'	Coal Ash @ 0' – 11'	ND				
B-8	20'		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-5 and B-6)	See B-5
B-9	20'	Coal Ash @ 0.5' – 2.5'	ND – 18.2				
B-10	20'		ND			Soil @ 0' – 20' (Composite with B-11 and B-12)	4,4'-DDD, Arsenic, Iron, Vanadium
B-11	20'	Coal Ash @ 8' – 11.5'	ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-10 and B-12)	See B-10

**Table C-1 (continued)**  
**Summary of Information from September 2020 Investigation – Probes**  
**(Information Available from Environmental Subsurface Investigation and Soil Sampling Report prepared by ATL and dated October 22, 2020)**

<b>Probe ID**</b>	<b>Depth Advanced</b>	<b>Coal Ash/Debris Observations</b>	<b>VOC Field Screening (ppm)</b>	<b>Samples Collected for Analysis of VOC</b>	<b>Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO</b>	<b>Samples Collected for Analysis of Semi-VOC, PCB, Metals, Pesticides, and Cyanide</b>	<b>Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO</b>
B-12	20'		ND	Soil @ 0' – 5'		Soil @ 0' – 20' (Composite with B-10 and B-11)	See B-10
B-13	20'		ND	Soil @ 10' – 15'	Acetone	Soil @ 0' – 20' (Composite with B-15 and B-16)	Iron, Vanadium
B-14	20'		ND				
B-15	20'		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-13 and B-16)	See B-13
B-16	20'		ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-13 and B-15)	See B-13
B-17	20'		ND	Soil @ 0' – 5'		Soil @ 0' – 20' (Composite with B-18 and B-19)	Iron, Vanadium
B-18	20'		ND	Soil @ 10' – 15'		Soil @ 0' – 20' (Composite with B-17 and B-19)	See B-17
B-19	20'		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-17 and B-18)	See B-17
B-20	20'	Coal Ash @ 0' – 2'	ND				
B-21	20'		ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-22 and B-23)	Iron
B-22	20'		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-21 and B-23)	See B-21
B-23	20'		ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-21 and B-22)	See B-21
B-24	20'		ND			Soil @ 0' – 20' (Composite with B-25)	Aluminum, Iron
B-25	20'		ND			Soil @ 0' – 20' (Composite with B-24)	See B-24
B-26	5.1' (Refusal)		ND	Soil @ 0' – 5'		Soil @ 0' – 20' (Composite with B-27)	Iron
B-27	20'		ND			Soil @ 0' – 20' (Composite with B-26)	See B-26
B-28	20'		ND	Soil @ 10' – 15'		Soil @ 0' – 20' (Composite with B-29)	Iron

**Table C-1 (continued)**  
**Summary of Information from September 2020 Investigation – Probes**  
**(Information Available from Environmental Subsurface Investigation and Soil Sampling Report prepared by ATL and dated October 22, 2020)**

<b>Probe ID**</b>	<b>Depth Advanced</b>	<b>Coal Ash/Debris Observations</b>	<b>VOC Field Screening (ppm)</b>	<b>Samples Collected for Analysis of VOC</b>	<b>Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO</b>	<b>Samples Collected for Analysis of Semi-VOC, PCB, Metals, Pesticides, and Cyanide</b>	<b>Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO</b>
B-29	20'		ND			Soil @ 0' – 20' (Composite with B-28)	See B-28
B-30	10' (Refusal)		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-31)	Iron
B-31	20'		ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-30)	See B-30
B-32	20'		ND				
B-33	20'		ND				
B-34	20'		ND				
B-35	20'	Coal Ash @ 0' – 12.5'	ND				
B-36	20'	Coal Ash @ 0.5' – 6'	ND				
B-37	20'	Coal Ash @ 0.5' – 7.5'	ND				
B-38	20'	Coal Ash @ 0' – 11.5'	ND				
B-39	20'	Coal Ash @ 0' – 15'	ND				
B-40	20'	Coal Ash @ 0.5' – 20'	ND				
B-41	20'		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-43)	4,4'-DDE, 4,4'-DDD, Aluminum, Calcium, Iron
B-42	20'	Coal Ash @ 0' – 8'	ND				
B-43	20'		ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-41)	See B-41



**Table C-1 (continued)**  
**Summary of Information from September 2020 Investigation – Probes**  
**(Information Available from Environmental Subsurface Investigation and Soil Sampling Report prepared by ATL and dated October 22, 2020)**

<b>Probe ID**</b>	<b>Depth Advanced</b>	<b>Coal Ash/Debris Observations</b>	<b>VOC Field Screening (ppm)</b>	<b>Samples Collected for Analysis of VOC</b>	<b>Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO</b>	<b>Samples Collected for Analysis of Semi-VOC, PCB, Metals, Pesticides, and Cyanide</b>	<b>Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO</b>
B-44	20'		ND	Soil @ 0' – 5'		Soil @ 0' – 20' (Composite with B-45)	Iron
B-45	20'		ND	Soil @ 10' – 15'	Acetone	Soil @ 0' – 20' (Composite with B-44)	See B-44
** Approximate locations of probes are shown on the <i>Aerial Overview of Affected Locations</i> plan in Appendix D.							

**Table C-2**

**Summary of Information from February 2017 Investigation – Borings/Monitor Wells**

**(Information Available from Draft Phase II Environmental Site Assessment Report prepared by Bergmann Associates and dated April 6, 2017)**

<b>Boring/ Monitor Well ID**</b>	<b>Depth Advanced</b>	<b>Coal Ash/Debris Observations</b>	<b>VOC Field Screening (ppm)</b>	<b>Groundwater Observations</b>	<b>Samples Collected for Metals Analysis</b>	<b>Metals Exceeding 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives</b>
B-1	100' (environmental assessment to 12')	Coal Ash @ 0' – 12'	0.0	Water @ 12.9'	0" – 2" (Soil)	Arsenic, Barium, Nickel
					10' – 12' (Soil)	Arsenic, Barium
B-2	50' (environmental assessment to 10')	Coal Ash @ 0' – 10'	0.0 – 2.9	Water @ 6'	0" – 2" (Soil)	Arsenic, Barium, Silver
					4' – 6' (Soil)	Arsenic, Barium, Chromium, Selenium, Silver
B-3/ MW- 1	150' (environmental assessment to 16')	Coal Ash @ 0' – 6'	0.0 – 13.7	Water @ 14.9'	0" – 2" (Soil)	Nickel
					2' – 4' (Soil)	Silver
					Groundwater (Screened @ 12' – 22')	Iron, Manganese
B-4/ MW- 3	100' (environmental assessment to 12')	Coal Ash @ 0' – 12'	0.0 – 0.9		0" – 2" (Soil)	Arsenic, Barium, Mercury
					2' – 4' (Soil)	Arsenic, Barium, Mercury
					Groundwater (Screened @ 5' – 15')	Iron, Sodium
B-5/ MW- 2	50' (environmental assessment to 14')		2.9 – 22.9		0" – 2" (Soil)	Arsenic, Barium, Silver
					4' – 6' (Soil)	Arsenic, Selenium, Silver
					Groundwater (Screened @ 11' – 21')	Iron, Manganese
B-6	50' (environmental assessment to 14')	Coal Ash @ 0' – 14'	0.0 – 0.2	Water @ 7.8'	0" – 2" (Soil)	Arsenic, Barium, Chromium, Nickel, Silver
					4' – 6' (Soil)	Arsenic, Barium, Nickel
B-7	50' (environmental assessment to 20')	Coal Ash @ 0' – 18'	0.1 – 0.2	Water @ 2.5'	0" – 2" (Soil)	Arsenic, Barium, Nickel, Silver
					1' – 4' (Soil)	Arsenic, Barium, Chromium, Mercury, Nickel
B-8	50' (environmental assessment to 18')	Coal Ash @ 6' – 18'	0.1 – 0.6		0" – 2" (Soil)	
					6' – 8' (Soil)	

\*\* Approximate locations of borings are shown on the *Aerial Overview of Affected Locations* plan in Appendix D.

Table C-3

Summary of Information from February 2017 Investigation – Test Pits

(Information Available from Draft Phase II Environmental Site Assessment Report prepared by Bergmann Associates and dated April 6, 2017)

Test Pit ID**	Depth Advanced	Coal Ash/Debris Observations	VOC Field Screening (ppm)
TP-1	12'		0.0 – 0.1
TP-2	12'		0.0 – 0.1
TP-3	12'		0.0 – 0.2
TP-4	12'		0.1 – 0.2
TP-5	12'		0.0 – 0.1
TP-6	12'		0.0
TP-7	12'		0.0
TP-8	12'	Railroad ties covered in black tar-like substance @ 8' – 12'	0.0 – 10.1
TP-9	10'		0.0
TP-10	12'	Coal Ash @ 0' – 12'	0.1
TP-11	12'	Coal Ash @ 0' – 12'	0.0 – 0.1
TP-12	12'	Coal Ash @ 0' – 12'	0.1

\*\* Approximate locations of test pits are shown on the *Aerial Overview of Affected Locations* plan in Appendix D.

**APPENDIX D**

**Aerial Overview of Affected Locations**





**LEGEND :**

● **B-5**  
(02/17) Approximate Location of Previous Boring or Test Pit with or Debris Ash Material Present (and Month/Year of Investigation)

■ **TP-4**  
(02/17) Approximate Location of Previous Boring or Test Pit without Ash Material Present (and Month/Year of Investigation)

- Approximate Extents of Area Expected to have Ash Material Present
- Approximate Extents of Area with Potential to have Ash Material Present
- Approximate Extents of Area Not Expected to have Ash Material Present

**AERIAL OVERVIEW OF AFFECTED LOCATIONS**

*Beacon Island Parcel  
Bethlehem, Albany County, New York*

Drawn By: CJD	Drawing: 1 of 1	Scale: As Noted	Project No.: AT5596	Date : October 2020
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**APPENDIX E**

**Sampling and Analysis Schedule for Fill**

Sampling Criteria for Fill Material per 6 NYCRR Part 360.13(e)

Soil Quantity (cubic yards)	Number of Discrete Samples	Number of Composite Samples <sup>1</sup>
	Volatile Organic Compounds (VOC)	Semi-VOC, Inorganics, Polychlorinated Biphenyls (PCB), and Pesticides
0 – 300	2	1
300 – 1,000	4	2
1,000 – 10,000	6	3
>10,000	2 for every additional 10,000 cubic yards	1 for every additional 10,000 cubic yards
Notes: <sup>1</sup> Each composite sample will be comprised of 3 to 5 discrete samples from different locations within the fill material.		

**APPENDIX E**

**Community Air Monitoring Plan**



# Port of Albany Site Expansion,

Prepared for:



LaBella Associates  
4 British American Blvd.  
Latham, New York 12110

**October 8, 2022**

**Revision 4**

**Prepared by:**

Watson & Associates, Occupational Hygiene and Safety, LLC  
PO Box 31, Greenville, New York 12083  
Project Number: 990214-002

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Appendix B DUSTTRAK™ II AEROSOL MONITOR MODEL 8530/8531/8532/8530EP,  
OPERATION AND SERVICE MANUAL

Appendix C Port of Albany Site Expansion Agency Contact List

## Community Air Monitoring Plan Port of Albany Site Expansion

### Project Description

The Beacon Island site is located to the east of River Road (County Route 144) and along the west side of the Hudson River, in the Town of Bethlehem, Albany County, New York. The Beacon Island parcel consists of approximately eighty acres and is the site of a planned expansion for the Port of Albany. The site is to be developed for wind turbine manufacturing. Portions of the site were previously used as a fly ash landfill.

### Scope

A Community Air Monitoring Plan (CAMP) is required to be implemented during excavation work for the Port of Albany Site Expansion. WM Keller and Sons (excavation contractor) has been contracted to excavate soils to support the expansion infrastructure. Excavation activities will include any relocation or reuse of the fly ash onsite. This CAMP will apply to all intrusive onsite operations. The CAMP can be terminated once placement of two feet (2') of clean fill is completed in excavated areas.

This CAMP has been prepared in accordance with New York State Department of Environmental Conservation (NYSDEC) DER-10, TECHNICAL GUIDANCE FOR SITE INVESTIGATION AND REMEDIATION, dated May 2010 (DER-10).

DER-10 requires real-time monitoring for volatile organic compounds (VOCs) and/or particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. This will be the responsibility of each contractor. The intent of the CAMP is to provide a measure of protection for the downwind community, including residences and businesses and on-site workers not directly involved with the subject work activities. The action levels specified herein require air monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site.

## Community Air Monitoring Plan Port of Albany Site Expansion

Please note that reliance on air monitoring will not preclude simple, common-sense measures to keep dust and odors at a minimum around the work areas.

### Community Air Monitoring Plan

Fly ash is the primary contaminant of concern. Continuous real time monitoring will be required for all ground intrusive activities and handling of soils.

Activities that are anticipated or known to include the disturbance of fly ash include:

- Cut and fill for the foundations (please see building site map Aggregate Grading Plan, provided in Appendix B);
- Areas to be developed with asphalt/concrete surfaces;
- Areas to be developed with lawn/landscaping.

Per the Atlantic Soil Management Plan, “Within 14 days, and no less than 3 days, prior to commencing work activities...” the NYSDEC shall be notified of the planned work. This notification should be performed by the Owner and/or Contractor performing the site work. The Design Professional and Environmental Consultant must also be similarly notified.” A 14-day notification will be sufficient time to obtain and ship all required air monitoring equipment.

Petroleum contamination has not been identified on site. In the event of the discovery of a historical petroleum release, all work will cease, and LaBella Associates must be notified immediately. Revisions to the CAMP may be required based upon discovered site conditions. LaBella Associates will maintain one photoionizing detector (PID) with a minimum lamp energy of a minimum of 10.6 electron volts throughout the project in order to respond to any discovered petroleum contamination.

### Particulate Monitoring – PM 10.0

Particulate concentrations will be monitored continuously during intrusive work at four (4) perimeter locations. Locations will be identified by a description of the location and compass heading. These locations will be fixed at the north, south, east, and west

## Community Air Monitoring Plan Port of Albany Site Expansion

perimeter locations of the site. Sample locations will be placed outside the active work boundaries. Proposed sample locations are identified on the site map located in Appendix A. Sample location 1 will be to the North, sample location 2 will be to the East, sample location 3 will be to the south and sample location 4 will be to the west.

Wind direction will be identified by use of a visual indicator such as a windsock or by a meteorological station. Wind direction will be noted daily at the beginning of the shift. Wind direction will be reported by the direction from which it originates. For example, a north or northerly wind will indicate that the wind blows from the north to the south. It is anticipated that wind direction will shift and, at times, constantly. In the event of an alarm condition, the upwind monitor will be the monitor identified to be the unit upwind of the monitor with the current alarm condition. The appropriate response actions will then be implemented.

The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. Four (4) TSI DustTrak II, Model 8530 direct reading instruments with environmental enclosures will be utilized with PM 10.0 cyclones. A copy of the owner's manual is attached in Appendix B. These units will be required to have an extra battery to ensure that data collection can be obtained over the contractor's anticipated 12-hour shifts. The units will be placed prior to the excavation contractor performing any intrusive work and will be removed after work is completed each day. One additional PM 10.0 monitor will be available on-site in case of equipment failure.

Please note that supplemental soil sampling is scheduled to further characterize the fly ash. If any adjustments are required, we will update the CAMP and resubmit.

## Community Air Monitoring Plan Port of Albany Site Expansion

### Response Levels and Actions – PM 10.0

If the downwind PM-10 particulate level is 100 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed  $150 \mu\text{g}/\text{m}^3$  above the upwind level and provided that no visible dust is migrating from the work area. The work area will be defined as the perimeter bounded by the dust monitors. If particulate levels are detected in excess of  $150 \mu\text{g}/\text{m}^3$ , the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than  $100 \mu\text{g}/\text{m}^3$  above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to reduce the potential for contaminant migration. Corrective measures may include implementing additional dust suppression techniques. Should the action level of  $150 \mu\text{g}/\text{m}^3$  continue to be exceeded work must stop and DEC and DOH must be notified the same day. The notification shall include a description of the control measures implemented to prevent further exceedances.

If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than  $150 \mu\text{g}/\text{m}^3$  above the upwind level, work must be stopped, and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within  $150 \mu\text{g}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

### Particulate Monitoring – PM 2.5

PM 2.5 particulate concentrations will be monitored continuously during intrusive work at four (4) perimeter locations. Locations will be identified by a description of the location and compass heading. These locations will be fixed at the north, south, east, and west perimeter locations of the site. Sample locations will be placed outside the active work boundaries. Proposed sample locations are identified on the site map

## Community Air Monitoring Plan Port of Albany Site Expansion

located in Appendix A. Sample location 1 will be to the North, sample location 2 will be to the East, sample location 3 will be to the south and sample location 4 will be to the west. These units will be co-located with the PM 10.0 monitors.

Wind direction will be identified by use of a visual indicator such as a windsock or by a meteorological station. Wind direction will be noted daily at the beginning of the shift. Wind direction will be reported by the direction from which it originates. For example, a north or northerly wind will indicate that the wind blows from the north to the south. It is anticipated that wind direction will shift and, at times, constantly. In the event of an alarm condition, the upwind monitor will be the monitor identified to be the unit upwind of the monitor with the current alarm condition. The appropriate response actions will then be implemented.

The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 2.5 micrometers in size (PM-2.5) and capable of integrating over a period of 15 minutes for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. Two (2) TSI DustTrak II, Model 8530 direct reading instruments with environmental enclosures will be utilized with PM 2.5 cyclones. A copy of the owner's manual is attached in Appendix B. These units will be required to have an extra battery to ensure that data collection can be obtained over the contractor's anticipated 12-hour shifts. The units will be placed prior to the excavation contractor performing any intrusive work and will be removed after work is completed each day. One additional monitor will be available on-site in case of equipment failure.

### Response Levels and Actions – PM 2.5

A PM -2.5 action level of 12.5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) above the upwind perimeter PM -2.5 concentration on a fifteen minute average basis will trigger dust or smoke/exhaust control/s. A higher 15-minute average action level, such as the level of the daily National Ambient Air Quality Standard of  $35 \mu\text{g}/\text{m}^3$  could be considered if an

## Community Air Monitoring Plan Port of Albany Site Expansion

increase of 12.5  $\mu\text{g}/\text{m}^3$  is demonstrated to be incompatible with responsible construction activity. The combination of operation of off- and on-road diesel equipment and fine water misting for dust control in the work zone could and can produce elevated PM -2.5 readings.

### Documentation Requirements

The air monitoring technician will maintain an electronic daily log, documenting the location of each unit by serial number, and the upwind and downwind locations. At the end of each shift the technician will provide a summary report to LaBella Associates.

The summary report will contain:

- any exceedances of action levels;
- any visual dust by location, date, and time;
- the name of the excavation contractor employee who was notified;
- the corrective actions taken by the excavation contractor;
- job or work task that generated the dust;
- location on site; and
- 15-minute averages.

The report will also include overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date of occurrence. All daily logs and data will be stored by date and transmitted to LaBella Associates electronically via email.

There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM-10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. The excavation contractor will be required to implement additional dust control measures if visual dust is observed.



## Community Air Monitoring Plan Port of Albany Site Expansion

### Site Communications and Notification Requirements

The following site communications and notification requirements will be implemented on the project:

The air monitoring technician performing the CAMP monitoring shall notify the excavating contractor of a visual dust or alarm condition. This notification will be verbally or by cell phone.

The air monitoring technician shall notify the LaBella site contact via email with a daily summary as noted in the Document Requirements section.

The air monitoring technician will notify LaBella for all off-site dust excursions by phone immediately upon notification by the excavating contractor, review of an alarm condition, or visual observation.

The excavating contractor will notify the air monitoring technician of any dust excursion, whether the dust excursion was an offsite event or not, in the event that the air monitoring technician is not aware of the event. This notification will be by cell phone.

A weekly report will be generated that outlines work conducted, CAMP data, any exceedances, corrective actions and anticipated next steps in the event of any exceedances that were not able to be corrected. Additionally, if there are any exceedances that require work stoppage, DOH shall be notified and provided CAMP data for the entire workday in case there are inquiries from the public. The NYS DOH, NYS DEC, Town of Bethlehem, and Albany County Department of Health will be provided the weekly report. Agency contacts are provided in Appendix C.

The following table lists the site contact phone numbers.

Table 1: Site Contact Cell Phone Numbers

Company	Name	Cell Phone Number
Port of Albany	Roddy Yagan	518-463-8763
Labella Associates	Chris LaPointe	973-513-5759
WM Keller	Jameson Phillips	518-732-1066

Dust Control Measures

All excavating contractors must implement a dust control program for all intrusive activities to be performed. The NYS DEC notes that the following techniques have been shown to be effective for controlling the generation and migration of dust during construction activities:

- Applying water on haul roads;
- Wetting equipment and excavation faces;
- Spraying water on buckets during excavation and dumping;
- Hauling materials in properly tarped or watertight containers;
- Restricting vehicle speeds to 10 miles per hour (mph);
- Covering excavated areas and material after excavation activity ceases; and
- Reducing the excavation size and/or number of excavations.

NYS DEC’s experience has shown that the chance of exceeding the 150 µg/m<sup>3</sup> action level is remote when the above measures have been utilized. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing dust.

## Community Air Monitoring Plan Port of Albany Site Expansion

The evaluation of weather conditions is necessary for proper dust control. When extreme weather conditions make dust control ineffective, work may need to be suspended.

### Quality Assurance/Quality Control (QA/QC)

In order to ensure the validity of the fugitive dust measurements performed, the following QA/QC procedures will be followed:

All used batteries for the Dust Trak II units shall be charged every evening. Charged batteries shall be placed in the units for use each day.

Each DustTrak must be zeroed prior to use daily. Procedures are outlined on page 23 of the owner's manual.

The maintenance of the DustTrak will follow the requirements outlined on pages 45 through 52 of the owner's manual as required. These include:

**Table 4–1. Recommended Maintenance Schedule**

<b>Item</b>	<b>Frequency</b>
Perform zero check	Before each use.
Clean inlet	350 hr. at 1 mg/m <sup>3*</sup>
Clean 2.5 µm calibration impactor	Before every use.
Replace internal filters	350 hr. at 1 mg/m <sup>3*</sup> or when indicated by the main screen filter error indicator.
Return to factory for cleaning and calibration (For 8530EP, TSI recommends that both the DustTrak and the External Pump Module be	Annually

### Documentation Utilized

The following documents were utilized to develop this site-specific CAMP:

## Community Air Monitoring Plan Port of Albany Site Expansion

New York State Department of Environmental Conservation (NYSDEC) DER-10, TECHNICAL GUIDANCE FOR SITE INVESTIGATION AND REMEDIATION, dated May 2010;

Atlantic Testing Laboratories Limited, SOIL MANAGEMENT PLAN, PORT OF ALBANY EXPANSION PROJECT, BEACON ISLAND PARCEL, BETHLEHEM, ALBANY COUNTY, NEW YORK, dated August 13, 2021; and

McFarland and Johnson, Aggregate Grading Plan, Drawing GR-02, Dated January 2022.

## Appendix A

Figure 1 - Proposed Monitoring Locations

Figure 2 - Coal Ash Disturbance



**Figure 1  
Monitoring Locations**

PROJECT MILESTONE  
**FINAL DESIGN PLANS**

NO.	DATE	DESCRIPTION
1	05/20/22	TOWN COMMENTS
2	06/06/22	TOWN COMMENTS
	06/08/22	GMP PLANS

CLIENT:  
**ALBANY PORT DISTRICT COMMISSION**  
ALBANY, NEW YORK

PROJECT:  
**PORT OF ALBANY EXPANSION SITE**

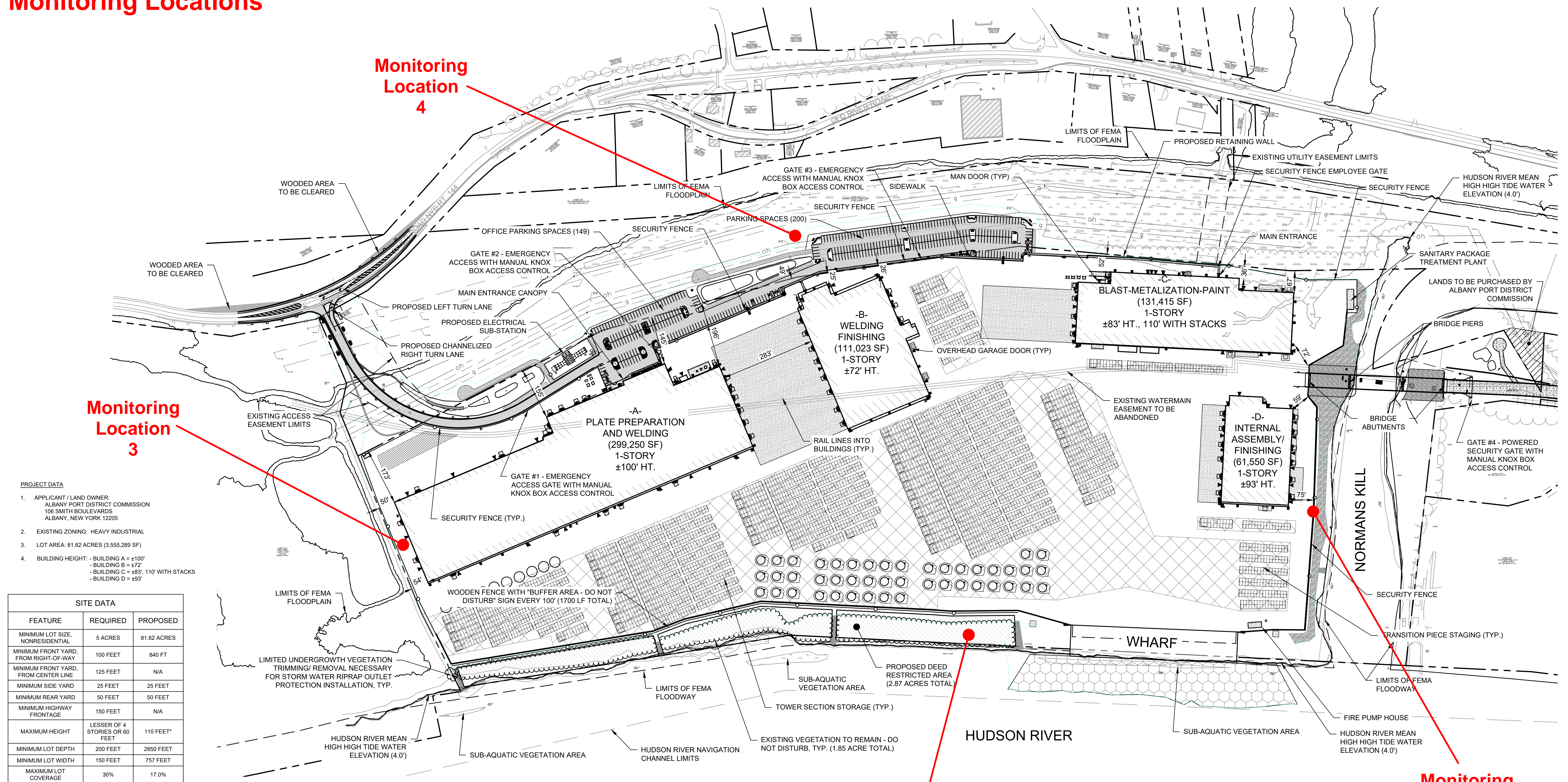
DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	AS SHOWN
DATE	05/10/2022
PROJECT	18641.00



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE  
**SITE PLAN OVERALL**

DRAWING NUMBER  
**SP-00**



- PROJECT DATA**
1. APPLICANT / LAND OWNER:  
ALBANY PORT DISTRICT COMMISSION  
106 SMITH BOULEVARDS  
ALBANY, NEW YORK 12205
  2. EXISTING ZONING: HEAVY INDUSTRIAL
  3. LOT AREA: 81.62 ACRES (3,555,289 SF)
  4. BUILDING HEIGHT: - BUILDING A = ±100'  
- BUILDING B = ±72'  
- BUILDING C = ±83', 110' WITH STACKS  
- BUILDING D = ±93'

SITE DATA		
FEATURE	REQUIRED	PROPOSED
MINIMUM LOT SIZE, NON-RESIDENTIAL	5 ACRES	81.62 ACRES
MINIMUM FRONT YARD, FROM RIGHT-OF-WAY	100 FEET	840 FT
MINIMUM FRONT YARD, FROM CENTER LINE	125 FEET	N/A
MINIMUM SIDE YARD	25 FEET	25 FEET
MINIMUM REAR YARD	50 FEET	50 FEET
MINIMUM HIGHWAY FRONTAGE	150 FEET	N/A
MAXIMUM HEIGHT	LESSER OF 4 STORIES OR 60 FEET	110 FEET*
MINIMUM LOT DEPTH	200 FEET	2850 FEET
MINIMUM LOT WIDTH	150 FEET	757 FEET
MAXIMUM LOT COVERAGE	30%	17.0%

\* WILL REQUEST A VARIANCE

**ZONING:**  
EXISTING: ±81.62 ACRES HEAVY INDUSTRIAL  
PROPOSED: ±81.62 ACRES HEAVY INDUSTRIAL

**TAX ACCOUNT NUMBERS:** 98 00-2-10 23  
98 01-2-1

\* ENTIRE SITE IS WITHIN 100-YR FLOODPLAIN

**PARKING:**  
1 SPACE FOR EACH 2 EMPLOYEES ON MAXIMUM WORKING SHIFT.  
TOTAL EMPLOYEES = 550

**REQUIRED:**  
275 TOTAL SPACES REQUIRED

**PROVIDED:**  
THE LARGEST SHIFT INCLUDES 180 EMPLOYEES WITH THE LARGEST SHIFT CHANGE INVOLVING 320 EMPLOYEES. INDIVIDUAL BUILDING PARKING DEMANDS FROM MARMEN WELCON HAVE BEEN PROVIDED BELOW:  
BUILDING A = 168 SPACES  
BUILDING B = 87 SPACES  
BUILDING C & D = 100 SPACES TOTAL  
TOTAL OPERATOR REQUESTED SPACES = 355  
349 TOTAL SPACES PROVIDED

**ADA SPACES REQUIRED:**  
PER 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN  
REQUIRED (349 SPACE LOT): 8 SPACES (6 STANDARD & 2 VAN)  
FOR TOTAL PARKING 301-400 SPACES  
PROVIDED (349 SPACE LOT): 9 SPACES (7 STANDARD & 2 VAN)

PLANNING BOARD HTE# 21-00100006

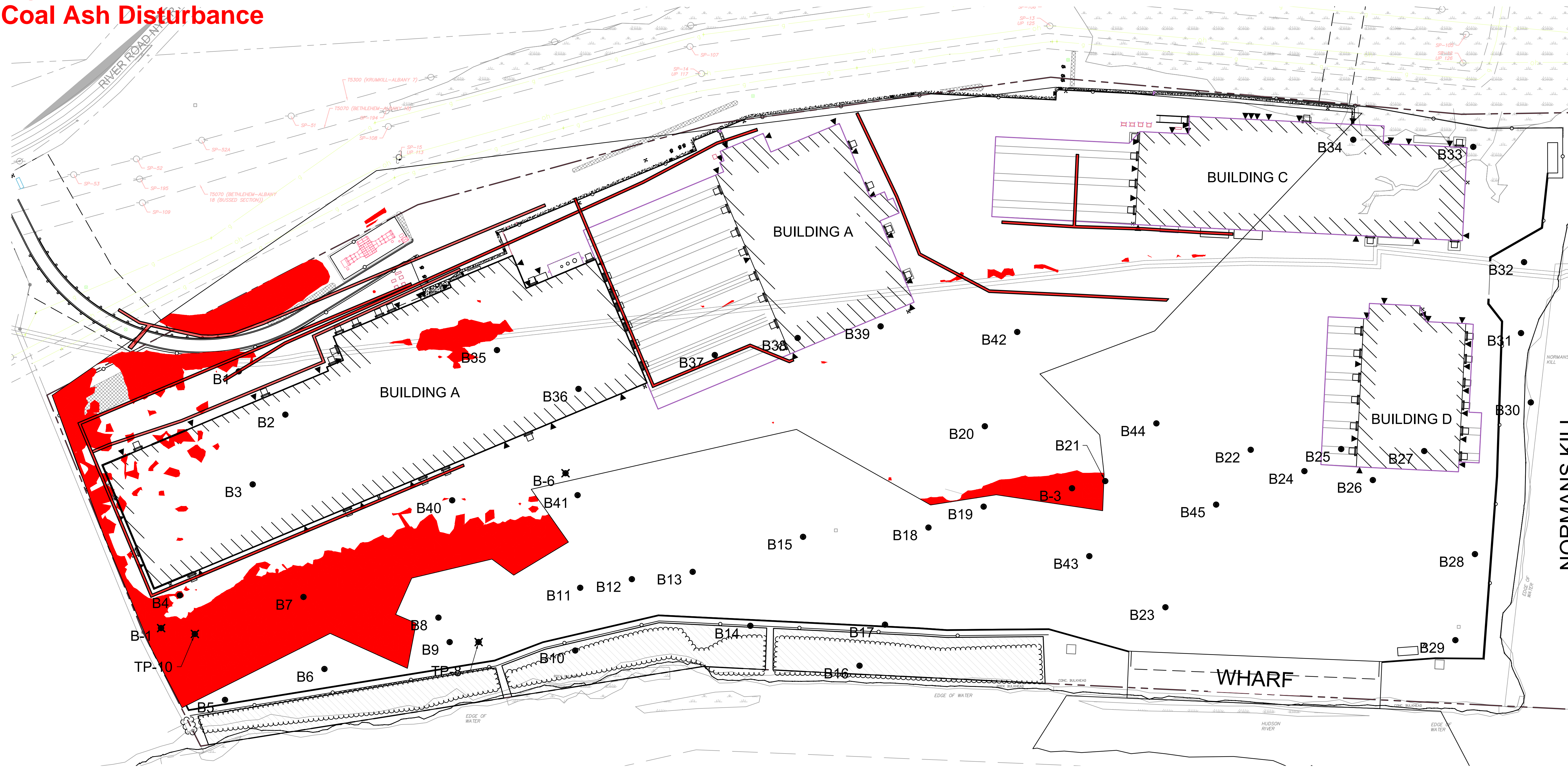
**LEGEND**

PROPERTY LINE	---	PROPOSED BUILDING FOOTPRINT	[Hatched Box]
EASEMENT LIMITS	- - -	MATERIAL STORAGE AREAS	[Cross-hatched Box]
DITCH CENTERLINE	---	WETLAND AREA	[Stippled Box]
ROADSIDE SWALE	---	WHARF DREDGING AREA	[Dotted Box]
BUILDING SETBACK	---	PAVEMENT AREA	[Solid Grey Box]
OVERHEAD DOORS	⊞	CONCRETE AREA	[Stippled Box]
MAN DOORS	⊞	RIP-RAP WATER EMBANKMENT STABILIZATION	[Cross-hatched Box]
EXISTING BUILDING	[Hatched Box]	PROPOSED DEED RESTRICTED AREA	[Diagonal Line Box]





**Figure 2  
Coal Ash Disturbance**



**GRADING NOTES:**  
1. THIS SHOWS THE COMPARISON OF THE FINISHED GRADE MINUS 48" TO THE EXISTING GRADE.

**LEGEND**  
APPROXIMATE LIMITS OF IMPACTED COAL ASH. 4.86± AC (211,707± SF.) 15,660± CU. YD.

- LEGEND**
- PROPERTY LINE
  - EASEMENT LIMITS
  - DITCH CENTERLINE
  - ROADSIDE SWALE
  - BUILDING SETBACK
  - OVERHEAD DOORS
  - MAN DOORS
  - EXISTING BUILDING
  - PROPOSED BUILDING FOOTPRINT
  - MATERIAL STORAGE AREAS
  - WETLAND AREA
  - WHARF DREDGING AREA
  - PAVEMENT AREA
  - CONCRETE AREA
  - RIP-RAP WATER EMBANKMENT STABILIZATION
  - PROPOSED DEED RESTRICTED AREA



**McFarland Johnson**  
60 RAILROAD PLACE  
SUITE 402  
SARATOGA SPRINGS, NEW YORK 12866  
P:518-580-9380 F:518-580-9383  
SaratogaROM@mjinc.com

PROJECT MILESTONE  
**BID PLANS**

NO.	DATE	DESCRIPTION

CLIENT: **ALBANY PORT DISTRICT COMMISSION**  
ALBANY, NEW YORK

PROJECT: **PORT EXPANSION SITE - SITE PREPARATION**

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	APRIL 2022
PROJECT	18641.00

CONCEPTUAL  
FIGURE  
NOT FOR  
CONSTRUCTION

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE  
**APPROXIMATE LIMITS OF IMPACTED COAL ASH PLAN**

DRAWING NUMBER  
**GR-01**  
OF

X:\18641.00 ALBANY PORT EXPANSION\DRAWINGS\BIDDING\FIG 2 GR-01.dwg 06/30/2022 DWG

Appendix B

DUSTTRAK™ II AEROSOL MONITOR MODEL 8530/8531/8532/8530EP, OPERATION  
AND SERVICE MANUAL



# DUSTTRAK™ II AEROSOL MONITOR MODEL 8530/8531/8532/8530EP

OPERATION AND SERVICE MANUAL

P/N 6001893, REVISION M  
DECEMBER 2014



DustTrak II 8530/31 Desktop and 8532 Handheld



DustTrak II 8530EP Monitor



# Port of Albany Site Expansion Agency Contact List

Agency	Contact Name	Phone Number	Email Address
Albany County Department of Health	Elizabeth Whalen	518-477-4580	elizabeth.whalen@albanycounty.com
Town of Bethlehem	Justin Harbinger	518-439-4955	jharbinger@townofbethlehem.org
NYS DEC	Tony Luisi	518-357-2068	r4info@dec.ny.gov
NYS DOH	Gary Ginsberg	518-402-7500	Gary.Ginsberg@health.ny.gov

**APPENDIX F**  
**Emergency Response Plan**

**EMERGENCY RESPONSE PLAN**

**PORT OF ALBANY EXPANSION PROJECT  
BEACON ISLAND PARCEL  
BETHLEHEM, ALBANY COUNTY, NEW YORK**



*WBE certified company*

**PREPARED BY:**

**ATLANTIC TESTING LABORATORIES, LIMITED  
22 Corporate Drive  
Clifton Park, New York 12065**

**PREPARED FOR:**

**Albany Port District Commission  
106 Smith Boulevard  
Albany, New York 12202**

**ATL REPORT NO. AT5596CE-06-10-22 - Appendix F**

**October 20, 2022**

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## **APPENDICES**

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### 1.0 FACILITY DESCRIPTION

<i>Facility Name:</i>	Beacon Island
<i>Facility Owner:</i>	Port of Albany
<i>Facility Address:</i>	River Road Bethlehem, New York
<i>Facility Coordinates:</i>	42° 36' 10.8" N 73° 45' 57.0" W
<i>Hours of Operation:</i>	Landfill reclamation work will be performed during site redevelopment and construction for Port of Albany Expansion. Typical hours of construction work and site activities will be <b>Monday through Friday, between 7:00 AM and 4:00 PM</b> ; however, hours may be extended to expedite the construction work.
<i>Overview of Operations:</i>	Historical disposal of coal ash, landfill reclamation to include excavation and relocation of a portion of the coal ash and providing suitable cover for the entirety of coal ash areas to remain

### 2.0 FACILITY CAPABILITIES

The landfill reclamation work activities will be performed concurrently with site work for the Port of Albany expansion project. As such, there will be on-site machinery and equipment (e.g., excavators, dozers, water trucks) available to respond to emergency situations that can be readily contained and controlled. The subject site is a large open area that will generally be cleared of trees, brush, and other site features that may increase risks in the event of certain emergency situations (i.e., fires, natural disasters). The openness of the subject site will also allow for timely responses and accessibility for materials and equipment needed to mitigate emergencies.

### 3.0 DESIGNATED EMERGENCY CONTACTS

Service/Entity	Role	Contact	Phone Numbers
Site Health and Safety Officer – to be designated at start of construction and site workers to be notified of designated representative			
Port of Albany	Owner	Roddy Yagan	Cellular: 518-463-8763
WM Keller	Site Contractor	Jameson Phillips	Cellular: 518-732-1066
Fire/Police/Emergency Medical			911
Local Hospital – Albany Medical Center (43 New Scotland Avenue, Albany, NY)			518-262-3125

<b>Service/Entity</b>	<b>Role</b>	<b>Contact</b>	<b>Phone Numbers</b>
New York State Department of Environmental Conservation (NYSDEC) Region 4 Office, Spills Management	Regulatory Review and Compliance	---	Office: 518-357-2045
NYSDEC Spill Hotline	Spill Reporting	---	1-800-457-7362

#### **4.0 PRE-EMERGENCY PLANNING**

The landfill reclamation operations will be conducted during site construction activities. All site personnel shall have OSHA 10-hour training, and have familiarization with this Emergency Response Plan. Additionally, a project-specific Health and Safety Plan and Community Air Monitoring Plan will be in-place for the construction project throughout the duration of landfill reclamation work activities.

In addition to construction site health and safety, site personnel shall be aware of the contaminants of concern associated with the landfill material (coal ash) and utilize appropriate control methods, personal protective clothing, and personal protective equipment during the handling and management of impacted materials. Available data indicates that primary contaminants of concern include metals, notably arsenic and barium.

Site evacuation routes and muster points will be posted at the site, and will be evaluated and adjusted, as needed, based on the progression of the construction project. Updated plans for evacuation routes and muster points shall be posted and provided to contractors/subcontractors at the site, as appropriate to ensure their employees are informed of current requirements and any modifications.

#### **5.0 EMERGENCY ALERTING AND EVACUATION**

An immediate alert system shall be necessary for emergency conditions that warrant evacuation of the site or affected sections of the site. An appropriate method for emergency alert (e.g., air horn, siren, whistle) shall be established at the onset of construction to ensure all on-site personnel in affected areas can be evacuated in an efficient and timely manner. All site personnel must be informed of the method for emergency alert such that they can be prepared for immediate evacuation. Site personnel shall also be aware of the prevailing wind direction. Wind direction indicators shall be installed at the subject site to assist with determination of the prevailing wind direction. Additionally, the Site Health and Safety Officer shall provide on-site personnel with details pertaining to the prevailing wind direction prior to work activities each day.

In the event of an emergency evacuation alert, all site personnel must immediately cease work activities and progress to the nearest upwind designated muster point or site exit. If the nearest designated muster point or site exit cannot be accessed due to the emergency situation, site personnel shall proceed to the next closest upwind designated muster point or site exit.

## **6.0 EMERGENCY RESPONSE ACTIONS**

### **6.1 FIRES**

Risk of fire relative to the landfill reclamation operations is considered to be low, in consideration of the landfill material being coal ash originally placed over 50 years ago. There is risk of fire with construction equipment used for on-site excavation, handling, transport, and placement of the coal ash and other site fill materials, in addition to items and products that may be staged on site.

#### Contained/Controllable Fires

- Notify nearby workers and the Site Health and Safety Manager. Provide for or seek medical treatment for site personnel who may have been injured or impaired during the incident.
- Secure the affected area.
- For small contained fires, site personnel can utilize on-site fire extinguishers and/or other on-site equipment as the initial response for extinguishing the fire.
- Fires contained within excavations or at the ground level can often be effectively controlled and extinguished by pushing soil into the fire location. Water trucks or water hose and pump systems could also be used.
- Personnel operating firefighting equipment should remain calm, position themselves upwind of the fire, and avoid any situation that would put themselves in danger or at risk of injury.
- Subsequent to extinguishing the fire, inspect the immediate area to confirm the fire has been fully extinguished and there is no risk for reignition.
- If the fire becomes uncontrollable via use of on-site resources, the fire shall be treated as an uncontained fire.

#### Uncontained/Uncontrollable Fires

- Notify nearby workers and the Site Health and Safety Officer. Provide for or seek medical treatment for site personnel who may have been injured or impaired during the incident.
- Ensure that the affected areas are appropriately evacuated, and site personnel remain calm. Evacuation shall be immediately away from the location of the fire, and then toward an upwind muster point.
- Call 911 for notification to the local fire department. Identify the location and type of fire, and risk of spreading out of the immediate area.
- Follow instructions from the Fire Department upon their arrival.
- Do not attempt to fight the fire unless site personnel are specifically trained in dealing with the type of fire incident.

After a fire incident is mitigated, the Site Health and Safety Office shall coordinate a review of the cause of the fire and identify prevention and training methods that can be implemented to reduce or avoid the potential for similar incidents in the future.

### **6.2 SPILLS**

Potential sources of spills at the subject site include equipment with petroleum products and petroleum products that may be stored and staged on-site in support of the construction work activities. The landfill reclamation operations should not require on-site



use or storage of significant quantities of chemicals or hazardous materials other than petroleum products. As such, this section addresses emergency response action for petroleum spills. If significant quantities of chemicals or hazardous materials will be used or present on-site during landfill reclamation operations, handling, management, and spill response items for such materials must be established and added to this Emergency Response Plan via addendum.

### Contained/Controllable Spills

A contained/controllable petroleum spill will be classified as a spill incident that does not require notification based on meeting all of the following criteria:

- Quantity is known to be less than 5 gallons
- Spill is contained and under the control of the spiller
- Spill has not and will not reach the State's water or any land (*Note: A spill is considered to have not impacted land if it occurs on a paved surface such as asphalt or concrete. A spill in a dirt or gravel parking lot is considered to have impacted land and is reportable.*)
- Spill is cleaned up within 2 hours of discovery

Emergency response to be implemented for contained/controllable spills include the following:

- Notify nearby workers and the Site Health and Safety Officer. Provide for or seek medical treatment for site personnel who may have been injured or impaired during the incident.
- Verify the spill source, type of product, amount spilled, and limits of affected area. If it is determined that the amount spilled is actually  $\geq 5$  gallons or water/land has or will be impacted, the spill will transition into a spill incident that requires reporting.
- Secure the affected area and ensure the spill source has been appropriately addressed to eliminate further release of petroleum product.
- Utilize on-site spill kit to immediately contain and cleanup the affected area. Obtain additional clean up materials and media if the spill kit items are not sufficient to fully cleanup the spill. If the spill cannot be fully contained and cleaned up within 2 hours of discovery, the spill will transition into a spill incident that requires reporting.

### Uncontained/Uncontrollable Spills

An uncontained/uncontrollable petroleum spill will be classified as a spill incident that requires notification based on not satisfying all criteria listed under the "Contained/Controllable" spills section.

Emergency response to be implemented for uncontained/uncontrollable spills include the following:

- Notify nearby workers and the Site Health and Safety Officer. Provide for or seek medical treatment for site personnel who may have been injured or impaired during the incident.
- Report the spill to the New York State Spill Hotline (1-800-457-7362) within 2 hours of discovery.
- Verify the spill source, type of product, amount spilled, and limits of affected area.

- Secure the affected area and ensure the spill source has been appropriately addressed to eliminate further release of petroleum product
- To the extent practical, utilize on-site spill kit to immediately contain and clean up the affected area. Obtain additional cleanup materials and media if the spill kit items are not sufficient to fully cleanup the spill. If necessary, coordinate with a contractor experienced in spill response and remediation to continue cleanup efforts to address the spill incident.
- Coordinate performance of a post-remediation assessment to assess site conditions and whether the spill cleanup and remediation work has satisfactorily mitigated impacts from the spill. This will likely require sampling and analysis for the remediated area.
- Prepare and submit spill remediation and post-remediation documentation to the NYSDEC for review and consideration of spill closure.

### **6.3 NATURAL DISASTERS**

A natural disaster can result in significant adverse consequences to the subject site and damage to equipment and items that are present on-site.

#### **Natural Disaster Preparedness**

As an overarching natural disaster preparedness measure, on-site petroleum products, chemicals, hazardous materials, and equipment containing these items should be managed to reduce the potential for spills and releases or for damage during a natural disaster event. Appropriate methods for storage and handling of these items, and securing materials, products, and equipment at the end of a work shift, shall be established at the onset of the construction and landfill reclamation work, and modified as warranted during the progression of construction and landfill reclamation operations. Specific protocol for natural disaster preparedness will be the responsibility of site contractors, relative to the equipment, material, and products under their control.

All warnings or watches for natural disasters in the vicinity of the subject site should be taken seriously, with the cessation of site work activities and evacuation of site personnel to avoid danger.

#### **Natural Disaster Response**

Subsequent to the occurrence of a natural disaster that affects the subject site, the following response action shall be implemented.

- Reenter the subject site only when conditions are considered safe and immediate hazards are mitigated by trained emergency response representatives.
- Perform an initial assessment of existing conditions to evaluate an order of magnitude extent of damages, potential for spills, risks of fire, health and safety hazards, and obstacles for site access and response actions.
- Prepare a plan to complete further assessment and evaluation, as deemed warranted, and implement response actions to mitigate damages and remediate areas that may have become contaminated by petroleum, chemicals, or other hazardous materials.

#### **6.4 OTHER**

For emergency situations other than fires, spills, and natural disasters, site personnel shall coordinate directly with the Site Health and Safety Manager. General response actions include:

- Notify nearby workers and the Site Health and Safety Officer. Provide for or seek medical treatment for site personnel who may have been injured or impaired during the incident.
- Verify the incident causing the emergency is under control. Contact 911 if necessary.
- Secure the area.
- Coordinate with the Site Health and Safety Officer and other on-site personnel who have appropriate emergency response training to identify and implement mitigation measures that are appropriate for the type of emergency incident.

**APPENDIX A**

**Directions to Nearest Hospital**

**A** Albany Medical Center, 43 New Scotland Ave, Albany, NY 12208

**B** 194 River Rd, Glenmont, NY 12077, United States

12 min , 3.9 miles

Light traffic (Leave at 6:08 PM)

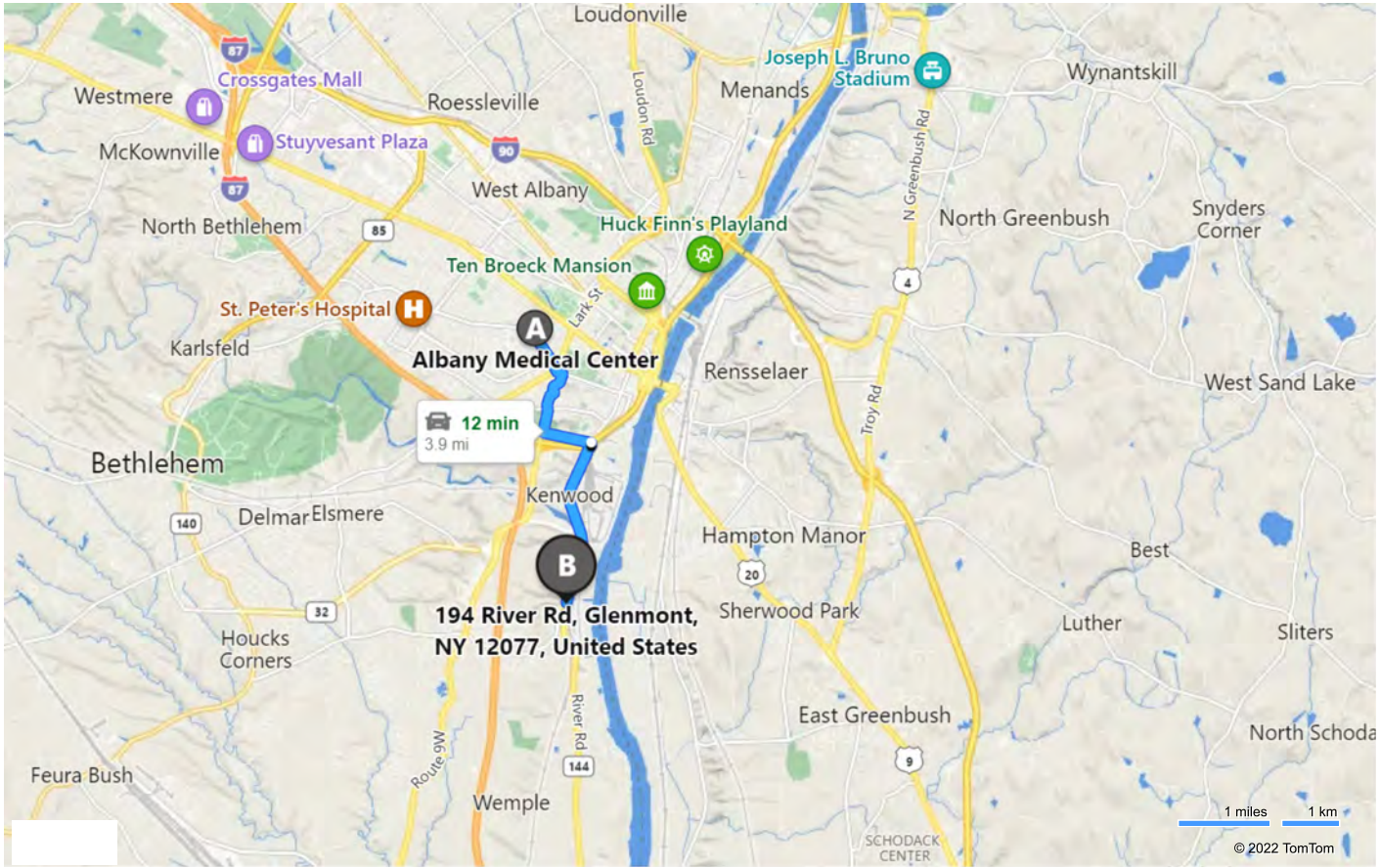
Via NY-32, NY-144



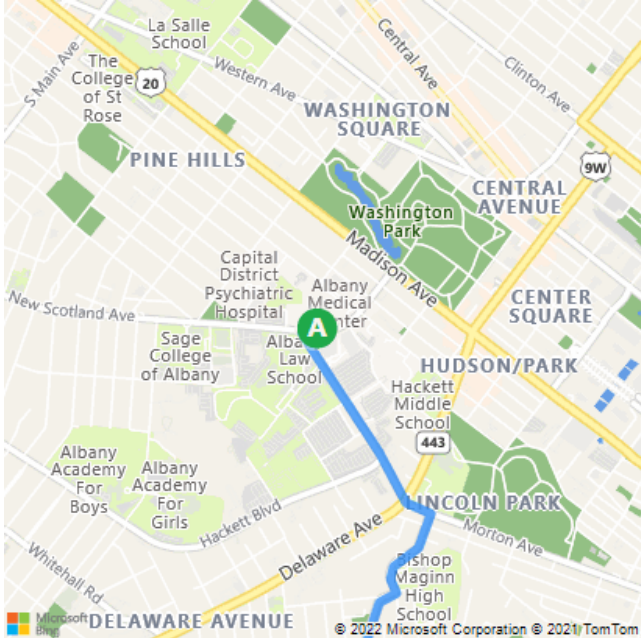
**A** Albany Medical Center

↑	1.	Depart and head toward <b>New Scotland Ave</b>	223 ft
↘	2.	Turn <b>right</b> onto <b>New Scotland Ave</b>	66 ft
↙	3.	Turn <b>left</b> onto <b>Holland Ave</b>	0.6 mi
↑	4.	Road name changes to <b>Morton Ave</b>	417 ft
↘	5.	Turn <b>right</b> onto <b>Oneida Terrace</b>	0.1 mi
↑	6.	Road name changes to <b>Slingerland St</b>	0.1 mi
↘	7.	Turn <b>right</b> onto <b>Frisbie Ave</b>	0.5 mi
↙	8.	Turn <b>left</b> onto <b>McCarty Ave</b>	0.6 mi
↘	9.	Turn <b>right</b> onto <b>NY-32 / S Pearl St</b> <ul style="list-style-type: none"> <li>• Roadwork on NY-32 from I-787 (Albany) (South) (Green St/S Pearl St/NY-32) to NY-144/River Rd (Corning Hill Rd/NY-32).</li> </ul>	1.1 mi
↑	10.	Keep <b>straight</b> to get onto <b>NY-144 / River Rd</b>	0.9 mi
		Arrive at <b>NY-144 / River Rd</b>	
	11.	The last intersection before your destination is Gates Ln If you reach Glenmont Rd, you've gone too far	

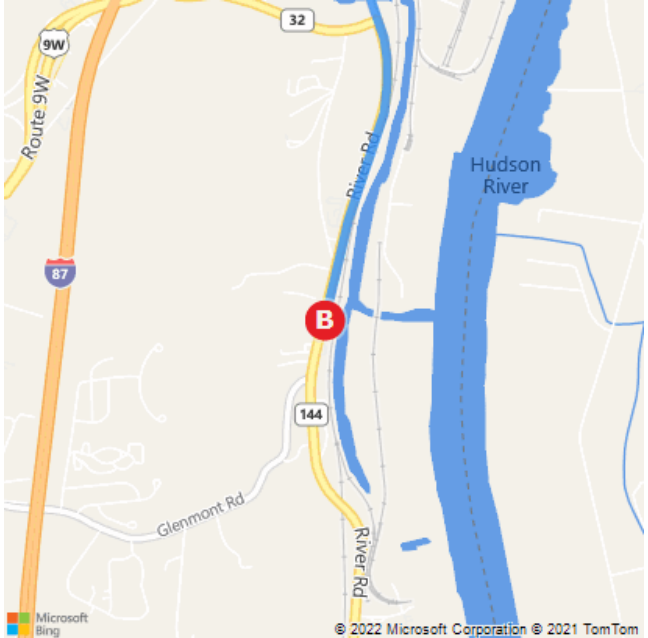
**B** 194 River Rd, Glenmont, NY 12077, United States



**A** Albany Medical Center, 43 New Scotland ...



**B** 194 River Rd, Glenmont, NY 12077, Unite...



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