PHASE II ENVIRONMENTAL SITE INVESTIGATION REPORT – AREA D

Buffalo Outer Harbor Civic Improvements
275, 461, 525, 575, and 901 Fuhrmann Boulevard
Buffalo, New York

17-012-0132

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1.0 INTRODUCTION

On behalf of Trowbridge Wolf Michaels Landscape Architects, LLP (TWML), LiRo Engineers, Inc. (LiRo) is conducting a Phase II Environmental Site Investigation (ESI) for the Buffalo Outer Harbor Civic Improvements project located at 275, 461, 525, 575, and 901 Fuhrmann Boulevard (the "Site") in Buffalo, New York (Figure 1). The Outer Harbor Site encompasses over 165 acres and five City of Buffalo tax parcels. The Phase II ESI is being performed to characterize environmental conditions in key areas where civic improvements are proposed.

Due to the size of the Site and past and future uses of the properties, the Site has been divided into six areas identified as Area A through Area F. This Phase II ESI report is specific to the investigation at Area D (and a small contiguous portion of Area F). Phase II ESI reports for other Site Areas are being prepared under separate covers.

Documents previously prepared by LiRo for this project include a Phase I Environmental Site Assessment (May 2017), a Site Investigation Work Plan (June 15, 2017), and a Health and Safety Plan (HASP) (April 2017). These documents define the scope of work, technical approach, and procedures for conducting the Phase II ESI.

1.1 Project Objectives

Portions of the Outer Harbor are currently in planning phase for redevelopment into recreational space. The proposed recreational space improvements include, but are not limited to, a Visitor Hub, Bike Path Extension, Recreational Spaces, Overlook(s)/Art Installation(s), a Bike Park, recreational use signage, a large event space, and a flexible, multi-use space on the Michigan Avenue Pier.

The objective of the Phase II ESI is to characterize Site environmental conditions with respect to the contemplated improvements in Area D. The Phase II ESI has been designed to develop a base of data sufficient to evaluate potential exposure to contaminants in soil or soil vapor for future site workers and recreational users; to develop soil management requirements for the civic improvement construction; and, to determine engineering controls or institutional controls that could be implemented to prevent exposure of future site users and workers to site contaminants.

2.0 BACKGROUND

2.1 Site Setting

The project Site is located in the Buffalo "Outer Harbor" section of the City's waterfront, and is situated along the Lake Erie shoreline within a protected harbor, formed by an outer break wall built between 1865 and 1890. Historically, the Outer Harbor provided deep water port facilities and associated landside transportation and industrial uses.

2.2 Site Background and Previous Investigations

LiRo prepared a Phase I Environmental Site Assessment for the Outer Harbor areas which included a comprehensive review of previous investigations and reports. The key documents relevant to environmental conditions in Area D and summarized in the Phase I include:

- Limited Human Health Exposure Assessment for Portions of the Buffalo Outer Harbor, prepared by URS and dated February 2012.
- Human Health Risk Assessment of Near-Term Recreational Activities for Portions of the Buffalo Outer Harbor, prepared by C&S Engineers, Inc. (C&S) and dated January 2017.
- NYSDEC Record of Decision (ROD), Buffalo Outer Harbor/Radio Tower Area Site, City of Buffalo, New York, prepared by the NYSDEC and dated March 1999.

Area D is a large section of land south of the former Bell Slip of the Buffalo Outer Harbor Site. Area D has been the subject of multiple studies that were summarized in the 2012 report prepared by URS. The Greenway Nature Trail/bicycle path (installed under New York State Department of Environmental Conservation (NYSDEC) oversight in Area C) was extended through the western portion of Area D. The interior (eastern) sections of Area D remain as vacant land with secondary vegetative growth (trees, shrubs, and grasses).

The property was largely created as a result of land reclamation and filling that has occurred over the past 100 years. Fill materials have been reported to consist of dredge spoils from US Army Corps of Engineers and miscellaneous filling from terrestrial human activities. Historical site investigation records indicate that a portion of Area D may have been used for storage of construction fill and that the William Pfohl Trucking Company operated a transfer station which

stored/delivered rock salt, zircon and sand, foundry sand from Chevrolet Motors River Road Foundry Plant, iron ore pellets, ball and china clay, gypsum rock, potash, and scrap metal.

Area D and Area E (Area E is also referred to as the Radio Tower Area or RTE) were investigated by the NYSDEC and it was determined that Area D did not contain hazardous waste, as documented in the March 1999 NYSDEC Record of Decision (ROD), Buffalo Outer Harbor/RTA Site. The 1999 ROD required a remedial action for the RTA but removed Area D from the Registry of Inactive Hazardous Waste Disposal Sites. No remedy was proposed for the land outside of the RTA.

The 1999 NYSDEC ROD reported concentrations of metals, polychlorinated biphenyls (PCBs), and polycyclic aromatic hydrocarbons (PAHs) greater than screening levels in surface soil, and subsurface soil. Volatile Organic Compounds (VOCs), pesticides, and metals were reported in groundwater at concentrations greater than screening levels.

The 2012 URS report summarized the historical NYSDEC data, but recognized limitations on the amount and quality of data available.

The LiRo Phase I ESA reported evidence of historical gasoline underground storage tanks (USTs) and above-ground storage tanks (ASTs) at a location in the northeastern edge of Area D along Fuhrmann Boulevard. Tanks reported include a 12,000-gallon UST, 4,000-gallon UST, 2,000-gallon UST, and two USTs/ASTs from a former helicopter (Heussler Helicopter) operation. These petroleum tanks were reported as present between 1952 and 1965 (see Figure 2 for the suspected area of historic storage tanks). The tank area has not been specifically investigated in any of the environmental sampling performed to date.

Area D is not currently regulated under any NYSDEC program. Due to the nature of the creation of this area from unknown or poorly documented filling operations, the soils (surface, subsurface, and deep subsurface) are not homogenous and subject to changes in material composition and analyte concentrations.

There has been a recent installation of a sculpture feature in Area D in a relatively small area adjacent to the Greenway Nature Trail. Several improvements are planned for Area D for other recreational uses including an extension of the exiting Greenway Nature Trail bike path, a mountain bike park, a great lawn/event venue, a visitor hub and additional art installations/overlooks.

3.0 SITE INVESTIGATION PROGRAM

3.1 Scope of Work

The following sections detail the work elements conducted during the Phase II ESI. The Phase II ESI field sampling and equipment decontamination were conducted in accordance with the methods and protocols described in the Work Plan (LiRo, 2017). The Phase II ESI investigation included the following subsurface investigation activities.

- Advancing 47 soil borings to a terminal depth of 6 or 8 feet below ground surface (ft. bgs).
- Field screening, classification, and identification of soils from the ground surface to the bottom of each boring. Soil samples were visually classified in the field using the Unified Soil Classification System (USCS). Field screening consisted of visual and olfactory indicators of impacts as well as screening with a photoionization detector (PID).
- Collecting surface soil samples (depth of 1 foot or less) and subsurface soil samples (depth greater than 1 foot) at all boring locations.
- Collecting 20 surface soil grab samples (depths of 0-2 inches and 2-12 inches) from 10 additional locations.
- Installing and sampling three soil vapor probes to a depth of 6 ft. bgs.
- Laboratory analysis of the soil and soil vapor samples at an accredited environmental laboratory.
- Collection of 30 shallow (0 to 1 ft. bgs) soil samples for horticultural testing at Cornell University. The results for the horticultural sampling are pending and will be included as an addendum or in the final version of this Phase II report.

Sampling locations are depicted on Figure 2. Details regarding these activities are discussed below.

3.2 Soil Investigation

Forty seven (47) soil borings were advanced using a direct push Geoprobe rig at the locations

shown on Figure 2. SJB Services, Inc. (SJB) of Buffalo, New York provided the direct push drilling services. Soil samples were collected continuously from grade to a depth of 6 or 8 (depending on location) ft. bgs using a 4-foot long macro-core and dual-tube sampler equipped with a dedicated acetate liner. The recovered samples were field-screened for volatile vapors using a PID unit equipped with a 10.6 electron volt (eV) lamp along their entire length after the acetate liner was cut. Soil descriptions for each boring were recorded on boring logs, which are provided in Appendix A.

Two soil samples were collected for chemical analysis from each Geoprobe boring. One shallow sample was collected from each boring to evaluate surface soil conditions and one deeper soil sample was collected to evaluate subsurface soil conditions. PID readings above background were detected in seven of the 47 soil borings. Other physical indicators of impacts, including odors or product sheen were not observed in any of the soil borings. In accordance with the Work Plan, the borings were backfilled with soil cuttings and the surface was restored with like materials.

3.3 Temporary Soil Vapor Probe Installation

Three soil vapor probes, SVP-1, SVP-2, and SVP-3 were installed adjacent to boring locations D-SB35, D-SB-36, and D-SB37, respectively. The soil vapor probes were sampled as a screening level investigation to support planning for a potential visitor hub structure. SJB installed the vapor probes in accordance with procedures described in the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 17, 2006 (NYSDOH Guidance). The soil vapor probes were each installed to a depth of approximately 6 ft. bgs and consisted of a 6-inch long screened implant attached to ¼-inch Teflon® tubing. A sandpack was placed around the implant from approximately 5 to 6 ft. bgs. The remainder of the borehole was sealed with bentonite.

3.4 Sampling and Analysis

Soil samples were collected and place in laboratory supplied, pre-cleaned sample jars labeled with a unique sample identification code, packed in a cooler with ice, and shipped under chain-of-custody control to ALS Group USA, Corp. (ALS) of Rochester, New York, a New York State Certified Laboratory (Environmental Laboratory Approval Program (ELAP) Certification #10145).

All soil samples were analyzed for NYSDEC Part 375/CP-51 Listed semi-volatile organic compounds (SVOCs) using United States Environmental Protection Agency (USEPA) Method 8270, polychlorinated biphenyls (PCBs) using USEPA Method 8082, metals using USEPA Methods 6010/7439, and pesticides using USEPA Methods 8081/8082. In addition to the above analyses, all surface soil samples were also analyzed for NYSDEC Part 375/CP-51 Listed herbicides using USEPA Method 8151, hexavalent chromium using USEPA Method 7199, and cyanide using USEPA Method 9012. Select samples were also analyzed for NYSDEC Part 375/CP-51 Listed volatile organic compounds (VOCs) using USEPA Method 8260.

Soil vapor samples were collected on September 1, 2017. Samples were collected from each soil vapor probe over a period of 6 hours using 6 liter Summa® canisters equipped with flow regulators calibrated for a flow rate of 0.017 liters per minute (LPM).

The soil vapor samples were analyzed for USEPA TO-15 VOCs using USEPA Method TO-15 and methane using USEPA Method TO-3 Modified.

3.5 Identification of Standards, Criteria and Guidance

Soil sample analytical results were compared to the NYSDEC Restricted Use (Track 2) Soil Cleanup Objectives (SCOs) for Restricted-Residential use and Commercial use.

New York State has not promulgated soil vapor standards, but the NYSDOH has established exposure guidelines, Air Guidance Values (AGVs), for indoor air quality. To evaluate concentrations of contaminants in soil vapor, the soil vapor analytical results were compared to the NYSDOH AGVs. As a screening tool, the soil vapor analytical results were also compared to background levels of VOCs in outdoor air presented in the NYSDOH Soil Vapor Intrusion Guidance Document, including Upper Fence Limit indoor air values from "Table C-1. NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes," 90th Percentile outdoor air values from "Table C-2. USEPA 2001: BASE Database, SUMMA canister method," and the 95th percentile Outdoor Air values from Table "Table C-5, HEI 2005: Relationship of Indoor, Outdoor and Personal Air published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C" (October 2006).

3.6 Deviations from Work Plan

There were no deviations from the Work Plan.

4.0 GEOLOGY AND HYDROGEOLOGY

4.1 Site and Regional Topographic Setting

LiRo reviewed the United States Geologic Survey (USGS), Buffalo Southeast, New York 7.5' Quadrangle (dated 1965). The elevation of Area D is approximately 580 ft. above mean sea level (amsl). The area immediately surrounding the Site is generally flat with a very gentle slope to the southwest towards Lake Erie.

4.2 Site and Regional Geology

Based on previous studies completed at the Site and LiRo's general knowledge of the area, the Site is completely manmade land, composed of fill from the early 1900s to 1980s. The Site is mostly vegetated with urban or secondary growth grasses, shrubs, and a few trees.

Based on the Geologic Map of New York, dated 1970, the Site is located within the Onondaga and Bois Blanc Limestones, specifically the Onondaga Limestone including Seneca, Morehouse (cherty), and Clarence Limestone Members, Edgecliff cherty Limestone Member, local coral bioherms, and the Bois Blanc Limestone including sandy, thin, discontinuous soils.

Local geology reported from Site geotechnical borings to depths as great as 65 ft. bgs report fill from ground surface to depths ranging from 5 to 20 ft. bgS, underlain by sand, silts, silty clay, and gravels. Bedrock, described as gray thick bedded limestone, was encounter at depths of 56 to 60 ft. bgs.

Five fill types have been identified from 0 to 26 ftbg in past reports. The fill types include: 1) landfill deposits; 2) hydraulic fill with a silt and clay matrix; 3) sand fill; 4) construction debris fill; and, 5) industrial process fill consisting of crushed concrete, asphalt, brick, wood, ash, glass, plastic, slag, coal, and cinder. The fill may occur as a combination of two or more fill types.

In Area D and E, south of the Bell Slip, two fill areas were reported. One fill area is located east of the north-south gravel roadway in the eastern one-third of Area D which is comprised of mainly industrial fill consisting of foundry sands, slag, brick, and layers of silt/clay size particles of ash and/or flue dust with thickness up to 14 feet thick. The second fill area is west of the

gravel road and contains hydraulic fill (dredged material) overlain by brick, gravel, crushed concrete, and slag.

Soil at the Outer Harbor has been identified through the Environmental Data Resources (EDR) database report as Urban Land and Haplaquolls. Urban land is defined as where 80% or more of the soil surface is covered by asphalt, concrete, buildings, or other impervious structures. Urban Land can include parking lots, shopping/business centers, industrial parks, etc. Haplaquolls soils are described as very poorly drained fine sandy loam.

Soil boring observations during the Phase II ESI indicated that fill material, which generally consisted of sandy silt, sandy gravel, or silty clay mixed with concrete, asphalt, slag, glass, coal, metal debris and red brick, was present in all 47 soil borings from grade to a maximum depth of 8 ft. bgs. The soil boring observations during the Phase II ESI did not identify a significant difference in fill types across Area D. Native soils were not encountered in any of the 47 soil borings.

4.3 Site and Regional Hydrogeology

Past investigations have reported groundwater at depths ranging from 8 to 15 ft. bgs. Groundwater flow is generally to the west towards Lake Erie. It is assumed that the groundwater table may be influenced by fluctuations in Lake Erie water levels. Lake Erie is the only surface water body in the study area, no ponds, rivers, or streams are present. Rain water either infiltrates to groundwater or follows existing topography and discharges via overland surface runoff directly to Lake Erie in areas where no manmade improvements have been constructed.

The closest state wetland is located approximately 300 ft. north of the Site. The EDR report indicates that approximately 25 percent of Area D occurs within the 100-year flood zone.

Groundwater was not encountered in any of the 47 soil borings installed during the Phase II ESI.

5.0 NATURE AND EXTENT OF CONTAMINATION

Soil analytical data for TCL VOCs, TCL SVOCs, PCBs, Pesticides, Herbicides, and TAL Metals were compared to Soil Cleanup Objectives (SCOs) listed in 6 NYCRR Part 375 for Restricted-Residential and Commercial uses. Laboratory analytical reports are included in Appendix B.

5.1 Surface Soil Contamination

A total of 67 surface soil composite samples were collected at 57 locations (47 Geoprobe borings with one surface soil sample each and 10 shallow sample locations with 2 samples each) for chemical analysis. The surface soil analytical results for detected compounds are presented in Table 1 through Table 5. Figure 3 illustrates the surface soil sample locations where: (1) analytical results did not indicate any exceedances of the Restricted-Residential Use SCOs; (2) analytical results indicated exceedances of Restricted-Residential Use SCOs; or, (3) analytical results indicated exceedances of Commercial Use SCOs.

SVOCs were detected at each of the 57 sample locations. Concentrations were found exceeding Restricted-Residential use and/or Commercial use SCOs at 28 of the 57 surface soil sample locations. The compounds exceeding SCOs included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene . Table 1 presents a summary of SVOC detections in surface soils.

Pesticides were detected at 30 of the 57 surface soil sample locations, however, none of the concentrations exceeded SCOs. Table 2 presents a summary of pesticide and herbicide detections in surface soils.

PCBs were detected at 35 of the 57 surface soil sample locations. Concentrations were found exceeding Restricted-Residential and/or Commercial use SCOs in seven of the 57 soil sample locations. Table 3 presents a summary of PCB detections in surface soils.

Metals were detected at each of the 57 surface soil sample locations. Metals, including arsenic, barium, cadmium, chromium, copper, lead, manganese, and/or mercury were detected at concentrations exceeding the Restricted-Residential and/or Commercial use SCOs at 21 of the 57 surface soil sample locations. Table 4 presents a summary of metals detections in surface soils.

One grab sample was collected for VOC analysis based on field screening (PID readings of

1,500 parts per million (ppm) from location F-SB4 at the 0 to 1 ft. bgs depth interval. No VOCs were reported in the sample, and it is likely that the PID measurement was anomalous at this location. Table 5 presents a summary of VOC detections in surface soils.

5.2 Subsurface Soil Contamination

A total of 47 composite samples of subsurface soil (deeper than 1-foot) were collected from 47 locations for chemical analysis. The subsurface soil analytical results for detected compounds are presented in Table 6 through Table 10. Figure 4 illustrates the subsurface soil sample locations where: (1) analytical results did not indicate any exceedances of the Restricted Residential Use SCOs; (2) analytical results indicated exceedances of Restricted Residential Use SCOs; or, (3) analytical results indicated exceedances of Commercial Use SCOs.

SVOCs were detected in all 47 subsurface sample locations. SVOCs , including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluouranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, and/or phenanthrene, were detected in 26 of the 47 subsurface soil sample locations in exceedance of the Restricted-Residential Use SCO and/or the Restricted Commercial Use SCO. Table 6 presents a summary of the SVOC detections in subsurface soils.

Pesticides were detected in 25 of the 47 subsurface soil sample locations. Pesticides, including 4,4'-DDD, 4,4'-DDT, and/or Dieldrin were detected in two of the 47 subsurface sample locations at concentrations exceeding the Restricted-Residential Use SCOs and/or the Restricted Commercial Use SCOs. Table 7 presents a summary of the Pesticide detections in subsurface soils.

PCBs were detected in 27 of the 47 subsurface soil sample locations. Total PCBs exceeding the Restricted-Residential Use SCO and/or Restricted Commercial Use SCO were detected in seven of the 47 subsurface sample locations. Table 8 presents a summary of the PCB detections in subsurface soils.

Metals were detected in all 47 subsurface soil sample locations. Metals, including arsenic, barium, cadmium, chromium, copper, lead, manganese, and/or mercury, were detected in 20 of the 47 subsurface soil sample locations at concentrations exceeding the Restricted-Residential Use SCOs and/or the Restricted Commercial Use SCOs. Table 9 presents a summary of metals detections in subsurface soils.

Seven grab samples were collected for VOC analysis based on field screening. VOCs were

detected in six of the seven grab samples collected at concentrations below the Restricted-Residential Use SCOs. Table 10 presents a summary of VOC detections in subsurface soils.

5.3 Soil Vapor

The soil vapor analytical results indicate that concentrations of VOCs were present in each of the soil vapor samples collected. The concentrations of VOCs were below the NYSDOH AGVs. Several VOCs, including acetone, chloroform, trichloroethene, tetrachloroethene, ethylbenzene, m&p-xylene, o-xylene, styrene, alpha-pinene, and d-limonene, were detected at concentrations above the NYSDOH Background Levels for outdoor air. The soil vapor analytical results indicate that concentrations of methane were present in each of the soil vapor samples collected. The highest concentration of methane was detected at SVP-1 at a concentration of 4,900 parts per million volume (ppmV) which is the equivalent of approximately 0.5 percent. The lower explosive limit (LEL) of methane is 5 percent. Table 11 presents a summary of VOCs and methane detections in soil vapor.

6.0 QUALITATIVE EXPOSURE ASSESSMENT

The qualitative exposure assessment considers the nature of populations currently exposed or that have the potential to be exposed to Area D related contaminants both on- and off-site and describes the reasonably anticipated future land use of Area D and affected populations.

The qualitative exposure assessment evaluates five elements associated with exposure pathways, and describes how each of these elements pertains to the Site. The exposure pathways that are addressed include the following:

1. A description of the contaminant source(s) including the location of the contaminant release to the environment (any waste disposal area or point of discharge) or if the original source is unknown, the contaminated environmental medium (soil, indoor or outdoor air, biota, water, etc.) at the point of exposure;
2. An explanation of the contaminant release and transport mechanisms to the exposed population;
3. Identification of all potential exposure point(s) where actual or potential human contact with a contaminated medium may occur;
4. Description(s) of the route(s) of exposure (i.e., ingestion, inhalation, dermal absorption, etc.); and,
5. A characterization of the receptor populations who may be exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway are documented; a potential exposure pathway exists when any one or more of the five elements comprising an exposure pathway is not known. An exposure pathway may be eliminated from further evaluation when any one of the five elements comprising an exposure pathway has not existed in the past, does not exist in the present, and can be reasonably anticipated to never exist in the future.

6.1 Characterization of Exposure Setting

As part of the assessment process, potential exposure pathways are determined through an evaluation of the physical setting of the Site and the potentially exposed populations. A brief description of the physical setting of the Site is presented in Section 2.0. The consideration of Site-specific factors related to the land usage is important in the development of realistic exposure scenarios and quantification of risks and hazards. The current and future potential land uses that are reasonably expected for the Site determine which populations may potentially be exposed. The Site land uses are discussed below.

Current Land Use

The current land use of Area D is limited recreational use. The Greenway Nature Trail/bicycle

path (installed under NYSDEC oversight in Area C) was extended through the western portion of Area D. The interior (eastern) sections of Area D remain as vacant land with secondary vegetative growth (trees, shrubs, and grasses).

Future Land Use

The future land use of Area D is expanded recreational use. The current improvements in Area D include the recent installation of a sculpture feature in a relatively small area adjacent to the Greenway Nature Trail. Several improvements are planned for Area D for other recreational uses including an extension of the exiting Greenway Nature Trail bike path, a mountain bike park, a great lawn/event venue, a visitor hub and additional art installations/overlooks.

6.2 Contaminant Sources

Based on the findings of the Phase II ESI, a specific contaminant source or release was not identified. The source of the contamination is inferred to be contaminants within the fill that was placed at the Site. Impacted media at the Site include: (1) SVOC, total PCB, and metal impacted surface soil; (2) SVOC, total PCB, pesticide, and metal impacted subsurface soil; and, (3) VOC impacted soil vapor. Air is also considered an impacted medium due to the potential release of vapors from soil to ambient and/or indoor air. Groundwater beneath the Site was not encountered during the Phase II ESI above the maximum investigation depth of 8 ft bgs. Ingestion, dermal contact, and inhalation are the potential routes of exposure.

6.3 Contaminant Release and Transport Mechanisms

Contaminants in surface soils can be released and transported by any direct contact with the exposed surface soil. Contaminants in subsurface soil may become suspended in the air column and could be inhaled during ground intrusive activity, such as excavating soil for utility trenching or general construction. Contaminants in soil vapor present in the surface soil can volatilize or adhere to soil particles and could be inhaled.

6.4 Potential Exposure Points

Potential exposure points are determined by identifying whether or not the potentially exposed population can contact these media.

Exposure pathways for contaminants present in undisturbed surface soils is potentially complete, where the soil is not under pavement.

For construction/utility workers, the exposure pathway to contaminants in subsurface soils is potentially complete.

The exposure pathway for ambient air inhalation of volatile chemicals from soil vapor is potentially complete. If an enclosed structure is constructed, engineering controls such as a vapor barrier should be considered. The soil vapor-to-ambient air exposure is considered *de minimus* in an outdoor or unenclosed setting as volatile chemicals are significantly diluted upon release to ambient air.

6.5 Potential Exposure Routes

Humans can be exposed to a variety of contaminated media, including soil, groundwater, surface water, sediment, air, and biota that has contact with other contaminated media. Based on the physical conditions of the Site, potential exposure routes associated with soil include incidental ingestion, direct dermal contact, and inhalation (airborne particulate). Potential exposure routes associated with soil vapor include inhalation (vapors).

6.6 Summary and Conclusion

As discussed in the preceding sections, the qualitative exposure assessment identified media and potential human exposure to surface and subsurface soil (through dermal contact, incidental ingestion, and inhalation of particulates), and soil vapor (through inhalation of vapors). The potentially exposed receptors include construction/utility workers and Site recreational users. The completed exposure pathways are summarized in the table below:

Environmental Media & Exposure Route	Human Exposure Assessment
Direct contact with surface soils (and incidental ingestion)	• Site recreational users can come into contact with contaminated surface soils. • Construction/utility workers can come into contact with contaminated surface soils.

Environmental Media & Exposure Route	Human Exposure Assessment
Direct contact with subsurface soils (and incidental ingestion)	• Site recreational area workers or construction/utility workers can come into contact with contaminated subsurface soils during ground-intrusive work. • Site recreational users can come into contact with contaminated subsurface soils if they are using the Site during construction activities.
Inhalation of air (exposures related to fugitive dust and soil vapor intrusion)	• Site recreational users may be exposed to soil vapors if buildings are constructed at the Site. • Site recreational users may be exposed to contaminated soils via fugitive dust (i.e., from dust-producing recreation or vehicles driving in unpaved areas

7.0 CONCLUSIONS AND RECOMMENDATIONS

LiRo performed a Phase II ESI in Area D and a small portion of Area F between August 16, 2017 and September 1, 2017 that consisted of surface and subsurface soil sampling and soil vapor sampling to assess the recognized environmental conditions (RECs) and/or environmental issues identified in the LiRo Phase I ESA report.

7.1 Conclusions

Based on the results of the Phase II ESI, the following conclusions are presented:

- Field screening of subsurface soils identified olfactory evidence of contamination as well as elevated PID readings in six (6) of the 47 Geoprobe boring locations (D-SB7, S-SB13, D-SB31, D-SB32, D-SB33, and D-SB34);
- The study area is underlain by fill materials which generally consist of sandy silt, sandy gravel, or silty clay mixed with concrete, asphalt, slag, glass, coal, metal debris, and red brick, from grade to a maximum investigation depth of 8 ft. bgs. Native soils were not encountered in any of the 47 soil borings.
- Surface soil sample results indicated concentrations of SVOCs, total PCBs, and metals that exceed Part 375 Restricted Use (Track 2) – Restricted-Residential SCOs and/or Commercial SCOs;
- Surface soil results from a relatively large area in the northwestern portion of the site reported contaminant levels that were lower than Commercial SCOs;
- Subsurface soil sample results indicated concentrations of SVOCs, pesticides, total PCBs, and metals that exceed Part 375 Restricted Use (Track 2) – Restricted-Residential SCOs and/or Commercial SCOs;
- Soil vapor results indicate that concentrations of VOCs were present in each of the soil vapor samples collected. The concentrations of VOCs were below the NYSDOH AGVs.
- Soil vapor results indicate that concentrations of methane were present in each of the soil vapor samples collected, with a maximum concentration of 4,900 ppmv which is the equivalent of 0.5 percent;
- Groundwater was not encountered during the Phase II ESI.

7.2 Recommendations

For the Site to be suitable for the proposed development, the following measures are recommended:

- Area D development plans should include a design for a site-wide cover system for areas where surface soil contaminant levels exceed applicable SCOs. The cover should be 1-

foot thick or 2-feet thick with thickness keyed to proposed use (passive or active recreation);

- If Area D is developed incrementally, then an institutional control should be used to prevent public access to contaminated portions of the site that have not been covered;
- Area D development plans should include a site management plan (SMP) which details provisions and procedures that will be implemented to prevent exposure of future Site workers and future Site recreational users to contaminated soil;
- To prevent exposure for future Site recreational users, the SMP should include annual inspection of the cover or barrier system and controls that would be used to mitigate potential exposure to the contaminated soil;
- Due to the presence of SVOCs, total PCBs, pesticides, and metals above Part 375 SCOs, dust control procedures are recommended during excavation or re-grading activities to minimize the creation and dispersion of fugitive airborne dust. A Community Air Monitoring Plan (CAMP) should be developed in accordance with the NYSDEC Division of Environmental Remediation (DER)-10 Regulations. The CAMP requires real-time monitoring for VOCs and 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 intended to provide a measure of protection for the downwind community from potential airborne contaminant releases as a direct result of construction or subsurface work activities. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability;
- Before beginning any construction or re-grading activities at Area D, the selected Contractor should submit a site-specific health and safety plan (HASP) that will meet the requirements set forth by the Occupational Safety and Health Administration (OSHA), the NYSDOH and any other applicable regulations. The HASP should identify the possible locations and risks associated with the potential contaminants that may be encountered, and the administrative and engineering controls that will be utilized to mitigate concerns (i.e., dust control procedures for SVOCs, PCBs, pesticides, and metals);
- If an enclosed structure is contemplated for the visitor center, engineering controls (such as a vapor barrier) should be incorporated into the building design;
- Monitoring for methane should be incorporated into any construction plans requiring intrusive excavation work.

TABLES

Table 1 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Surface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS1-0-2	D-SS1-2-12	D-SS2-0-2	D-SS2-2-12	D-SS3-0-2	D-SS3-2-12
			8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/16/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
Acenaphthene	100,000	500,000	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	500,000	ND	ND	130 J	ND	ND	ND
Anthracene	100,000	500,000	110 J	78 J	140 J	ND	190 J	410 J
Benz(a)anthracene	1,000	5,600	360 J	260 J	520	ND	720	*1,400 J*
Benzo(a)pyrene	1,000	1,000	350 J	230 J	550	ND	720	**1,300 J**
Benzo(b)fluoranthene	1,000	5,600	450	290 J	760	ND	920	*1,600 J*
Benzo(g,h,i)perylene	100,000	500,000	240 J	150 J	380 J	ND	430	860 J
Benzo(k)fluouranthene	3,900	56,000	140 J	120 J	250 J	ND	310 J	550 J
Chrysene	3,900	56,000	360 J	260 J	550	ND	710	1,400 J
Dibenz(a,h)anthracene	330	560	ND	ND	100 J	ND	120 J	ND
Dibenzofuran	59,000	350,000	ND	ND	ND	ND	ND	ND
Fluouranthene	100,000	500,000	720	540	1,000	ND	1,400	2,800
Fluourene	100,000	500,000	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	280 J	180 J	450	ND	*520*	*930 J*
Naphthalene	100,000	500,000	ND	ND	ND	ND	94 J	ND
Phenanthrene	100,000	500,000	350 J	260 J	480	ND	740	1,900
Pyrene	100,000	500,000	580	430	810	ND	1,100	2,300
Total SVOCs	NS	NS	3,940	2,798	6,120	ND	7,974	15,450

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 1 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Surface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS4-0-2	D-SS4-2-12	D-SS5-0-2	D-SS5-2-12	D-SS6-0-2	D-SS6-2-12
			8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/17/2017	8/17/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
Acenaphthene	100,000	500,000	190 J	ND	2,100	ND	ND	ND
Acenaphthylene	100,000	500,000	ND	79 J	ND	ND	ND	ND
Anthracene	100,000	500,000	530	260 J	6,100	820 J	ND	ND
Benz(a)anthracene	1,000	5,600	*1,200*	870	**7,700**	*2,000*	ND	ND
Benzo(a)pyrene	1,000	1,000	**1,100**	860	**6,200**	**1,900 J**	ND	ND
Benzo(b)fluoranthene	1,000	5,600	*1,400*	*1,100*	***6,700***	*2,300*	ND	ND
Benzo(g,h,i)perylene	100,000	500,000	590	460	2,900	950 J	ND	ND
Benzo(k)fluouranthene	3,900	56,000	450	410	2,400	890 J	ND	ND
Chrysene	3,900	56,000	1,200	910	*7,000*	2,000	ND	ND
Dibenz(a,h)anthracene	330	560	160 J	130 J	**880 J**	ND	ND	ND
Dibenzofuran	59,000	350,000	160 J	ND	2,300	ND	ND	ND
Fluouranthene	100,000	500,000	2,700	1,900	20,000	5,200	ND	ND
Fluourene	100,000	500,000	210 J	ND	2,900	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	*730*	*570*	*3,600*	*1,200 J*	ND	ND
Naphthalene	100,000	500,000	150 J	ND	2,700	ND	ND	ND
Phenanthrene	100,000	500,000	2,100	1,100	24,000	4,700	ND	ND
Pyrene	100,000	500,000	2,200	1,600	15,000	4,000	ND	ND
Total SVOCs	NS	NS	15,070	10,249	112,480	25,960	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 1 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Surface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS7-0-2	D-SS7-2-12	D-SS8-0-2	D-SS8-2-12	D-SS9-0-2	D-SS9-2-12
			8/17/2017	8/17/2017	8/17/2017	8/17/2017	8/17/2017	8/17/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
Acenaphthene	100,000	500,000	ND	480	150 J	110 J	ND	ND
Acenaphthylene	100,000	500,000	210 J	170 J	90 J	ND	ND	ND
Anthracene	100,000	500,000	530	1,300	700	550	ND	ND
Benz(a)anthracene	1,000	5,600	*1,100*	*2,300*	*1,600*	*1,100*	140 J	ND
Benzo(a)pyrene	1,000	1,000	**1,100**	**2,100**	**1,300**	840	110 J	ND
Benzo(b)fluoranthene	1,000	5,600	*1,300*	*2,400*	*1,600*	*1,200*	200 J	100 J
Benzo(g,h,i)perylene	100,000	500,000	500	900	730	480	95 J	ND
Benzo(k)fluouranthene	3,900	56,000	440	720	540	410	ND	ND
Chrysene	3,900	56,000	1,000	2,100	1,500	1,100	170 J	78 J
Dibenz(a,h)anthracene	330	560	150 J	260 J	190 J	160 J	ND	ND
Dibenzofuran	59,000	350,000	ND	410	160 J	150 J	ND	ND
Fluouranthene	100,000	500,000	2,800	5,400	4,000	2,600	280 J	84 J
Fluourene	100,000	500,000	180 J	560	260 J	170 J	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	*630*	*1,100*	*890*	*540*	86 J	ND
Naphthalene	100,000	500,000	ND	250 J	ND	85 J	ND	ND
Phenanthrene	100,000	500,000	1,700	5,100	3,300	2,300	250 J	110 J
Pyrene	100,000	500,000	2,200	4,400	3,200	2,100	250 J	73 J
Total SVOCs	NS	NS	13,840	29,950	20,210	13,895	1,581	445

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

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ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 1 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Surface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS10-0-2	D-SS10-2-12	F-SB1-0-1	F-SB2-0-1	F-SB3-0-1	F-SB4-0-1
			8/17/2017	8/17/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			0-2 inches	2-12 inches	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Acenaphthene	100,000	500,000	ND	ND	120 J	510 J	ND	ND
Acenaphthylene	100,000	500,000	200 J	850 J	ND	ND	ND	ND
Anthracene	100,000	500,000	380 J	1,900	420	1,300 J	ND	ND
Benz(a)anthracene	1,000	5,600	*1,200*	*4,500*	*1,100*	*2,500*	470 J	240 J
Benzo(a)pyrene	1,000	1,000	**1,300**	**4,100**	1,000	**2,300**	490 J	240 J
Benzo(b)fluoranthene	1,000	5,600	*1,600*	*4,800*	*1,200*	*2,700*	530 J	320 J
Benzo(g,h,i)perylene	100,000	500,000	650	3,000	640	1,300 J	ND	140 J
Benzo(k)fluouranthene	3,900	56,000	580	1,700	430	980 J	ND	110 J
Chrysene	3,900	56,000	1,300	*4,100*	1,000	2,300	430 J	270 J
Dibenz(a,h)anthracene	330	560	190 J	**600 J**	170 J	*370 J*	ND	ND
Dibenzofuran	59,000	350,000	ND	590 J	120 J	460 J	ND	ND
Fluouranthene	100,000	500,000	2,700	12,000	2,200	5,600	790 J	340 J
Fluourene	100,000	500,000	130 J	1,100 J	170 J	550 J	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	*790*	*3,300*	*760*	*1,600 J*	ND	160 J
Naphthalene	100,000	500,000	ND	ND	150 J	370 J	ND	95 J
Phenanthrene	100,000	500,000	1,500	10,000	1,600	5,000	440 J	270 J
Pyrene	100,000	500,000	2,400	9,100	1,900	4,800	750 J	300 J
Total SVOCs	NS	NS	14,920	61,640	12,980	32,640	3,900	2,485

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

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ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 1 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Surface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB1-0-1	D-SB2-0-1	D-SB3-0-1	D-SB4-0-1	D-SB5-0-1	D-SB6-0-1
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Acenaphthene	100,000	500,000	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	500,000	ND	ND	130 J	ND	ND	ND
Anthracene	100,000	500,000	110 J	ND	350 J	140 J	ND	ND
Benz(a)anthracene	1,000	5,600	390 J	510 J	960	520	ND	550
Benzo(a)pyrene	1,000	1,000	380	470 J	920	520	ND	790
Benzo(b)fluoranthene	1,000	5,600	550	580 J	*1,200*	600	ND	920
Benzo(g,h,i)perylene	100,000	500,000	230 J	ND	600	320 J	ND	540
Benzo(k)fluouranthene	3,900	56,000	180 J	ND	410	230 J	ND	310 J
Chrysene	3,900	56,000	400	480 J	960	490	ND	660
Dibenz(a,h)anthracene	330	560	ND	ND	160 J	85 J	ND	130 J
Dibenzofuran	59,000	350,000	ND	ND	ND	ND	ND	ND
Fluouranthene	100,000	500,000	690	890 J	2,000	990	ND	720
Fluourene	100,000	500,000	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	270 J	ND	*730*	380 J	ND	*610*
Naphthalene	100,000	500,000	ND	ND	ND	ND	ND	ND
Phenanthrene	100,000	500,000	360 J	560 J	1,200	540	ND	290 J
Pyrene	100,000	500,000	600	760 J	1,700	850	ND	690
Total SVOCs	NS	NS	4,160	4,250	11,320	5,665	ND	6,210

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

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ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 1 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Surface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB7-0-1	D-SB8-0-1	D-SB9-0-1	D-SB10-0-1	D-SB11-0-1	D-SB12-0-1
			8/21/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Acenaphthene	100,000	500,000	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	500,000	120 J	ND	ND	ND	ND	ND
Anthracene	100,000	500,000	220 J	300 J	ND	ND	ND	ND
Benz(a)anthracene	1,000	5,600	690	600 J	830 J	ND	140 J	ND
Benzo(a)pyrene	1,000	1,000	700	590 J	900 J	ND	140 J	ND
Benzo(b)fluoranthene	1,000	5,600	870	650 J	*1,100 J*	ND	160 J	ND
Benzo(g,h,i)perylene	100,000	500,000	350 J	420 J	560 J	ND	90 J	ND
Benzo(k)fluouranthene	3,900	56,000	310 J	250 J	ND	ND	ND	ND
Chrysene	3,900	56,000	650	550 J	790 J	ND	140 J	ND
Dibenz(a,h)anthracene	330	560	94 J	ND	ND	ND	ND	ND
Dibenzofuran	59,000	350,000	ND	ND	ND	ND	ND	ND
Fluouranthene	100,000	500,000	1,400	1,200	1,400 J	ND	240 J	ND
Fluourene	100,000	500,000	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	440	440 J	*570 J*	ND	79 J	ND
Naphthalene	100,000	500,000	ND	ND	ND	ND	ND	ND
Phenanthrene	100,000	500,000	650	940 J	700 J	ND	160 J	ND
Pyrene	100,000	500,000	1,200	1,000 J	1,300 J	ND	220 J	ND
Total SVOCs	NS	NS	7,694	6,940	8,150	ND	1,369	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 1 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Surface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB13-0-1	D-SB14-0-1	D-SB15-0-1	D-SB16-0-1	D-SB17-0-1	D-SB18-0-1
			8/22/2017	8/22/2017	8/22/2017	8/23/2016	8/23/2017	8/23/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Acenaphthene	100,000	500,000	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	500,000	ND	ND	ND	260 J	ND	ND
Anthracene	100,000	500,000	120 J	480 J	ND	660 J	280 J	ND
Benz(a)anthracene	1,000	5,600	390 J	*1,600*	ND	*2,800*	740	520 J
Benzo(a)pyrene	1,000	1,000	420	**1,600**	ND	**2,900**	620 J	450 J
Benzo(b)fluoranthene	1,000	5,600	520	*1,800*	ND	*4,900*	820	610 J
Benzo(g,h,i)perylene	100,000	500,000	240 J	930 J	ND	2,500	510 J	340 J
Benzo(k)fluouranthene	3,900	56,000	170 J	600 J	ND	1,400	310 J	ND
Chrysene	3,900	56,000	400	1,700	ND	3,000	660 J	480 J
Dibenz(a,h)anthracene	330	560	ND	270 J	ND	**690 J**	ND	ND
Dibenzofuran	59,000	350,000	ND	ND	ND	330 J	ND	ND
Fluouranthene	100,000	500,000	760	2,900	87 J	4,200	1,100	900
Fluourene	100,000	500,000	ND	ND	ND	240 J	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	280 J	*940 J*	ND	*2,100*	400 J	310 J
Naphthalene	100,000	500,000	ND	ND	ND	580 J	ND	ND
Phenanthrene	100,000	500,000	460	2,000	ND	2,800	1,100	610 J
Pyrene	100,000	500,000	680	2,900	ND	3,800	1,100	860
Total SVOCs	NS	NS	4,440	17,720	87	33,160	7,640	5,080

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 1 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Surface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB19-0-1	D-SB20-0-1	D-SB21-0-1	D-SB22-0-1	D-SB23-0-1	D-SB24-0-1
			8/23/2017	8/23/2017	8/23/2017	8/23/2017	8/24/2017	8/24/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Acenaphthene	100,000	500,000	900	ND	2,400	ND	ND	ND
Acenaphthylene	100,000	500,000	2,900	ND	350 J	ND	ND	ND
Anthracene	100,000	500,000	7,600	ND	7,700	ND	ND	510 J
Benz(a)anthracene	1,000	5,600	**11,000**	910 J	**12,000**	310 J	490 J	*1,800*
Benzo(a)pyrene	1,000	1,000	**9,200**	830 J	**8,700**	ND	480 J	**1,800**
Benzo(b)fluoranthene	1,000	5,600	**11,000**	1,000 J	**11,000**	400 J	700 J	*2,900*
Benzo(g,h,i)perylene	100,000	500,000	7,500	620 J	4,900	ND	440 J	1,500
Benzo(k)fluouranthene	3,900	56,000	*4,500*	430 J	*5,100*	ND	ND	720 J
Chrysene	3,900	56,000	*8,900*	830 J	*9,900*	570 J	590 J	1,900
Dibenz(a,h)anthracene	330	560	**1,600**	ND	**1,400**	ND	ND	*380 J*
Dibenzofuran	59,000	350,000	4,800	ND	1,700	ND	ND	ND
Fluouranthene	100,000	500,000	32,000	1,500	28,000	600 J	600 J	3,600
Fluourene	100,000	500,000	7,800	ND	2,700	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	**6,300**	*510 J*	*4,700*	ND	320 J	*1,200*
Naphthalene	100,000	500,000	14,000	ND	1,700	ND	330 J	ND
Phenanthrene	100,000	500,000	38,000	1,000 J	26,000	630 J	640 J	1,600
Pyrene	100,000	500,000	26,000	1,400	22,000	510 J	690 J	3,100
Total SVOCs	NS	NS	194,000	9,030	150,250	3,020	5,280	21,010

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 1 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Surface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB25-0-1	D-SB26-0-1	D-SB27-0-1	D-SB28-0-1	D-SB29-0-1	D-SB30-0-1
			8/24/2017	8/24/2017	8/24/2017	8/24/2017	8/24/2017	8/25/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Acenaphthene	100,000	500,000	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	500,000	ND	ND	ND	ND	ND	ND
Anthracene	100,000	500,000	ND	720 J	ND	350 J	390 J	ND
Benz(a)anthracene	1,000	5,600	410 J	*1,800*	280 J	840	*1,100*	ND
Benzo(a)pyrene	1,000	1,000	320 J	**1,500**	ND	700 J	910	ND
Benzo(b)fluoranthene	1,000	5,600	470 J	*2,100*	280 J	910	*1,100*	ND
Benzo(g,h,i)perylene	100,000	500,000	270 J	990	ND	490 J	640 J	ND
Benzo(k)fluouranthene	3,900	56,000	ND	560 J	ND	280 J	470 J	ND
Chrysene	3,900	56,000	400 J	1,800	280 J	810	990	ND
Dibenz(a,h)anthracene	330	560	ND	270 J	ND	ND	ND	ND
Dibenzofuran	59,000	350,000	ND	ND	ND	ND	ND	ND
Fluouranthene	100,000	500,000	610 J	3,900	460 J	1,700	2,200	ND
Fluourene	100,000	500,000	ND	360 J	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	ND	*830*	ND	420 J	*530 J*	ND
Naphthalene	100,000	500,000	ND	2,000	ND	ND	ND	ND
Phenanthrene	100,000	500,000	500 J	2,500	350 J	1,500	1,500	ND
Pyrene	100,000	500,000	570 J	3,200	460 J	1,600	2,000	ND
Total SVOCs	NS	NS	3,550	22,530	2,110	9,600	11,830	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 1 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Surface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB31-0-1	D-SB32-0-1	D-SB33-0-1	D-SB34-0-1	D-SB35-0-1	D-SB36-0-1
			8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Acenaphthene	100,000	500,000	ND	ND	480 J	ND	750 J	380
Acenaphthylene	100,000	500,000	ND	ND	210 J	ND	ND	ND
Anthracene	100,000	500,000	ND	ND	2,500	190 J	1,800	550
Benz(a)anthracene	1,000	5,600	620 J	570 J	*3,600*	*1,500*	*4,500*	*1,100*
Benzo(a)pyrene	1,000	1,000	580 J	620 J	**3,300**	**1,300**	**4,100**	970
Benzo(b)fluoranthene	1,000	5,600	840 J	870 J	*3,800*	*2,400*	*5,000*	*1,300*
Benzo(g,h,i)perylene	100,000	500,000	420 J	590 J	1,900	1,000	2,500	520
Benzo(k)fluouranthene	3,900	56,000	ND	ND	1,500	820	1,900	460
Chrysene	3,900	56,000	720 J	640 J	3,400	1,900	*4,300*	1,100
Dibenz(a,h)anthracene	330	560	ND	ND	*480 J*	310 J	**720 J**	160 J
Dibenzofuran	59,000	350,000	ND	ND	430 J	ND	460 J	240 J
Fluouranthene	100,000	500,000	1,300 J	960 J	7,600	2,000	9,100	2,600
Fluourene	100,000	500,000	ND	ND	1,000	ND	790 J	380
Indeno(1,2,3-cd)pyrene	500	5,600	420 J	*510 J*	*2,200*	*1,100*	*2,900*	*610*
Naphthalene	100,000	500,000	ND	ND	270 J	ND	200 J	150 J
Phenanthrene	100,000	500,000	870 J	730 J	5,900	830	6,500	2,500
Pyrene	100,000	500,000	1,100 J	950 J	6,500	1,700	7,500	1,900
Total SVOCs	NS	NS	6,870	6,440	45,070	15,050	53,020	14,920

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 1 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Surface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth						
			D-SB37-0-1	D-SB38-0-1	D-SB39-0-1	D-SB40-0-1	D-SB41-0-1	D-SB42-0-1	D-SB43-0-1
			8/25/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Acenaphthene	100,000	500,000	1,400	ND	ND	ND	690 J	ND	480 J
Acenaphthylene	100,000	500,000	ND	ND	ND	ND	ND	ND	ND
Anthracene	100,000	500,000	2,300	ND	ND	ND	1,400	740 J	1,200
Benz(a)anthracene	1,000	5,600	*4,100*	700 J	510 J	ND	*2,200*	*2,400*	*3,000*
Benzo(a)pyrene	1,000	1,000	**3,500**	550 J	460 J	ND	**1,800**	**2,000**	**2,700**
Benzo(b)fluoranthene	1,000	5,600	*4,300*	740 J	590 J	530 J	*2,000*	*2,700*	*3,700*
Benzo(g,h,i)perylene	100,000	500,000	2,100	390 J	340 J	590 J	1,000	1,000 J	1,300
Benzo(k)fluouranthene	3,900	56,000	1,600	ND	ND	ND	790	910 J	980
Chrysene	3,900	56,000	*4,000*	600 J	540 J	450 J	1,900	2,200	2,400
Dibenz(a,h)anthracene	330	560	**620 J**	ND	ND	ND	270 J	ND	*380 J*
Dibenzofuran	59,000	350,000	820	ND	ND	ND	460 J	ND	330 J
Fluouranthene	100,000	500,000	9,100	1,100	800	500 J	5,100	4,200	6,400
Fluourene	100,000	500,000	1,400	ND	ND	ND	670 J	ND	610 J
Indeno(1,2,3-cd)pyrene	500	5,600	*2,400*	340 J	280 J	ND	*890*	*890 J*	*1,300*
Naphthalene	100,000	500,000	370 J	ND	ND	450 J	280 J	1,200 J	560 J
Phenanthrene	100,000	500,000	8,600	720 J	490 J	520 J	5,600	2,600	5,400
Pyrene	100,000	500,000	6,900	1,100 J	800	540 J	4,400	3,600	4,800
Total SVOCs	NS	NS	53,510	6,240	4,810	3,580	29,450	24,440	35,540

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 2 - Summary of Pesticides Detected in Surface Soil

Herbicide/Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS1-0-2	D-SS1-2-12	D-SS2-0-2	D-SS2-2-12	D-SS3-0-2	D-SS3-2-12
			8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/16/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	8.3 J
4,4'-DDT	7,900	47,000	ND	ND	ND	5.3 JP	11	60
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	ND	29 P
Endrin	11,000	89,000	ND	ND	ND	8.1 J	ND	28
alpha-Chlordane	4200	24,000	ND	ND	ND	ND	ND	ND
delta-BHC	100,000	500,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	ND	ND	ND	13	11	125

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Table 2 - Summary of Pesticides Detected in Surface Soil

Herbicide/Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS4-0-2	D-SS4-2-12	D-SS5-0-2	D-SS5-2-12	D-SS6-0-2	D-SS6-2-12
			8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/17/2017	8/17/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	8.3 JP	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	39	14	15	8.2 J	ND	ND
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	7.5 JP	ND	ND	ND	ND	ND
Endrin	11,000	89,000	18	7.2 J	10	6.2 J	ND	ND
alpha-Chlordane	4200	24,000	ND	ND	ND	ND	ND	ND
delta-BHC	100,000	500,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	73	21	25	14	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Table 2 - Summary of Pesticides Detected in Surface Soil

Herbicide/Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS7-0-2	D-SS7-2-12	D-SS8-0-2	D-SS8-2-12	D-SS9-0-2	D-SS9-2-12
			8/17/2017	8/17/2017	8/17/2017	8/17/2017	8/17/2017	8/17/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	24	15 P	51	71	33	57
Aldrin	97	680	ND	ND	ND	6.5 J	ND	6.2 J
Dieldrin	200	1,400	12	ND	ND	ND	ND	ND
Endrin	11,000	89,000	10 P	14	26	43	17	29
alpha-Chlordane	4200	24,000	ND	ND	ND	ND	ND	ND
delta-BHC	100,000	500,000	ND	ND	ND	ND	ND	5 J
Lindane	1,300	9,200	ND	ND	6.6 J	10	ND	ND
Total Pesticides	NS	NS	46	29	84	131	50	97

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Table 2 - Summary of Pesticides Detected in Surface Soil

Herbicide/Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS10-0-2	D-SS10-2-12	F-SB1-0-1	F-SB2-0-1	F-SB3-0-1	F-SB4-0-1
			8/17/2017	8/17/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			0-2 inches	2-12 inches	0-1 feet	0-1 feet	0-1 feet	0-1 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	8.4 J	ND	ND	ND	7.8 J	ND
4,4'-DDT	7,900	47,000	10	6.1 J	ND	ND	ND	ND
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	7.2 J	ND	ND	ND	ND	ND
alpha-Chlordane	4200	24,000	ND	ND	ND	ND	ND	ND
delta-BHC	100,000	500,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	16	18	17 J	ND	ND
Total Pesticides	NS	NS	26	24	18	17	8	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Table 2 - Summary of Pesticides Detected in Surface Soil

Herbicide/Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB1-0-1	D-SB2-0-2	D-SB3-0-1	D-SB4-0-1	D-SB5-0-1	D-SB6-0-1
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	39	ND	ND
4,4'-DDT	7,900	47,000	ND	ND	ND	92	ND	ND
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	6.6 J	ND	ND	30	ND	ND
alpha-Chlordane	4200	24,000	ND	ND	ND	ND	ND	ND
delta-BHC	100,000	500,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	7	ND	ND	161	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Table 2 - Summary of Pesticides Detected in Surface Soil

Herbicide/Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB7-0-1	D-SB8-0-1	D-SB9-0-1	D-SB10-0-1	D-SB11-0-1	D-SB12-0-1
			8/21/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	ND	5.3 J	6.5 J	ND	ND	ND
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	ND	ND	ND	ND	ND	ND
alpha-Chlordane	4200	24,000	ND	ND	ND	ND	ND	ND
delta-BHC	100,000	500,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	ND	5	7	ND	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Table 2 - Summary of Pesticides Detected in Surface Soil

Herbicide/Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB13-0-1	D-SB14-0-1	D-SB15-0-1	D-SB16-0-1	D-SB17-0-1	D-SB18-0-1
			8/22/2017	8/22/2017	8/22/2017	8/23/2017	8/23/2017	8/23/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
4,4'-DDD	13,000	92,000	ND	54	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	ND	180	ND	ND	ND	ND
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	ND	44	ND	ND	ND	ND
alpha-Chlordane	4200	24,000	ND	ND	ND	ND	ND	ND
delta-BHC	100,000	500,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	ND	278	ND	ND	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Table 2 - Summary of Pesticides Detected in Surface Soil

Herbicide/Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB19-0-1	D-SB20-0-1	D-SB21-0-1	D-SB22-0-1	D-SB23-0-1	D-SB24-0-1
			8/23/2017	8/23/2017	8/23/2017	8/23/2017	8/24/2017	8/24/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	19	ND
4,4'-DDT	7,900	47,000	ND	ND	ND	110	48	50
Aldrin	97	680	ND	ND	ND	ND	ND	5.8 J
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	7.9 J	ND	ND	49 P	26	29
alpha-Chlordane	4200	24,000	ND	ND	ND	ND	ND	ND
delta-BHC	100,000	500,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	8	ND	ND	159	93	85

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Table 2 - Summary of Pesticides Detected in Surface Soil

Herbicide/Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB25-0-1	D-SB26-0-1	D-SB27-0-1	D-SB28-0-1	D-SB29-0-1	D-SB30-0-1
			8/24/2017	8/24/2017	8/24/2017	8/24/2017	8/24/2017	8/25/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	51	37	12	ND	27	ND
Aldrin	97	680	6.9 J	16	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	29	26	ND	ND	ND	ND
alpha-Chlordane	4200	24,000	ND	ND	ND	ND	ND	ND
delta-BHC	100,000	500,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	87	79	12	ND	27	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Table 2 - Summary of Pesticides Detected in Surface Soil

Herbicide/Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB31-0-1	D-SB32-0-1	D-SB33-0-1	D-SB34-0-1	D-SB35-0-1	D-SB36-0-1
			8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	ND	ND	ND	ND	ND	ND
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	ND	ND	ND	ND	ND	ND
alpha-Chlordane	4200	24,000	ND	ND	ND	ND	ND	ND
delta-BHC	100,000	500,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	7.8 J	5.3 J
Total Pesticides	NS	NS	ND	ND	ND	ND	7.8	5.3

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Table 2 - Summary of Pesticides Detected in Surface Soil

Herbicide/Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth						
			D-SB37-0-1	D-SB38-0-1	D-SB39-0-1	D-SB40-0-1	D-SB41-0-1	D-SB42-0-1	D-SB43-0-1
			8/25/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	ND	ND	ND	ND	8.6 J	49	17
Aldrin	97	680	ND	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	ND	ND	ND	ND	ND	14	8 J
alpha-Chlordane	4200	24,000	9.3 J	ND	ND	ND	ND	ND	ND
delta-BHC	100,000	500,000	ND	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	16	ND	ND	ND	ND	ND	6.3 J
Total Pesticides	NS	NS	25.3	ND	ND	ND	9	63	31

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Table 3 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Surface Soil

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS1-0-2	D-SS1-2-12	D-SS2-0-2	D-SS2-2-12	D-SS3-0-2	D-SS3-2-12
			8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/16/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	ND	ND	ND	440
Aroclor 1260	NS	NS	34 J	27 J	130	95	120	420
Total PCBs	1,000	1,000	34	27	130	95	120	860

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 3 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Surface Soil

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS4-0-2	D-SS4-2-12	D-SS5-0-2	D-SS5-2-12	D-SS6-0-2	D-SS6-2-12
			8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/17/2017	8/17/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
Aroclor 1248	NS	NS	52	ND	0.046	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	110	50	ND	ND
Aroclor 1260	NS	NS	210	94	83	42	ND	390
Total PCBs	1,000	1,000	262	94	193	92	ND	390

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 3 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Surface Soil

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS7-0-2	D-SS7-2-12	D-SS8-0-2	D-SS8-2-12	D-SS9-0-2	D-SS9-2-12
			8/17/2017	8/17/2017	8/17/2017	8/17/2017	8/17/2017	8/17/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
Aroclor 1248	NS	NS	ND	ND	140	290	100 J	260
Aroclor 1254	NS	NS	ND	ND	550	930	470	750
Aroclor 1260	NS	NS	23 J	320	130 P	230	120	200
Total PCBs	1,000	1,000	23	320	820	**1,450**	690	**1,210**

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 3 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Surface Soil

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS10-0-2	D-SS10-2-12	F-SB1-0-1	F-SB2-0-1	F-SB3-0-1	F-SB4-0-1
			8/17/2017	8/17/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			0-2 inches	2-12 inches	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1260	NS	NS	70	40	28 J	ND	44	ND
Total PCBs	1,000	1,000	70	40	28	ND	44	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 3 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Surface Soil

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB1-0-1	D-SB2-0-1	D-SB3-0-1	D-SB4-0-1	D-SB5-0-1	D-SB6-0-1
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1260	NS	NS	76	79	110	42	ND	ND
Total PCBs	1,000	1,000	76	79	110	42	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 3 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Surface Soil

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB7-0-1	D-SB8-0-1	D-SB9-0-1	D-SB10-0-1	D-SB11-0-1	D-SB12-0-1
			8/21/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1260	NS	NS	44	ND	ND	ND	ND	ND
Total PCBs	1,000	1,000	44	ND	ND	ND	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 3 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Surface Soil

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB13-0-1	D-SB14-0-1	D-SB15-0-1	D-SB16-0-1	D-SB17-0-1	D-SB18-0-1
			8/22/2017	8/22/2017	8/22/2017	8/23/2017	8/23/2017	8/23/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1260	NS	NS	ND	69	ND	23 J	64	ND
Total PCBs	1,000	1,000	ND	69	ND	23	64	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 3 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Surface Soil

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB19-0-1	D-SB20-0-1	D-SB21-0-1	D-SB22-0-1	D-SB23-0-1	D-SB24-0-1
			8/23/2017	8/23/2017	8/23/2017	8/23/2017	8/24/2017	8/24/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aroclor 1248	NS	NS	ND	ND	ND	890	280	300
Aroclor 1254	NS	NS	ND	ND	ND	2,000	930 P	1,000
Aroclor 1260	NS	NS	79	130	ND	1,700	370	240
Total PCBs	1,000	1,000	79	130	ND	**4,590**	**1,580**	**1,540**

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 3 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Surface Soil

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB25-0-1	D-SB26-0-1	D-SB27-0-1	D-SB28-0-1	D-SB29-0-1	D-SB30-0-1
			8/24/2017	8/24/2017	8/24/2017	8/24/2017	8/24/2017	8/25/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aroclor 1248	NS	NS	350	1,100	ND	ND	ND	ND
Aroclor 1254	NS	NS	1,000	820	ND	ND	ND	ND
Aroclor 1260	NS	NS	380	230	120	23 J	ND	ND
Total PCBs	1,000	1,000	**1,730**	**2,150**	120	23	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 3 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Surface Soil

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB31-0-1	D-SB32-0-1	D-SB33-0-1	D-SB34-0-1	D-SB35-0-1	D-SB36-0-1
			8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1260	NS	NS	ND	ND	ND	ND	ND	ND
Total PCBs	1,000	1,000	ND	ND	ND	ND	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 3 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Surface Soil

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth						
			D-SB37-0-1	D-SB38-0-1	D-SB39-0-1	D-SB40-0-1	D-SB41-0-1	D-SB42-0-1	D-SB43-0-1
			8/25/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND	77
Aroclor 1254	NS	NS	ND	ND	ND	ND	ND	ND	220
Aroclor 1260	NS	NS	42	ND	28 J	43	140	170	170
Total PCBs	1,000	1,000	42	ND	28	43	140	170	467

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 4 - Summary of Metals Detected in Surface Soil

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS1-0-2	D-SS1-2-12	D-SS2-0-2	D-SS2-2-12	D-SS3-0-2	D-SS3-2-12
			8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/16/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
Aluminum	NS	NS	11,800	9,750	20,800	6,170	12,900	10,700
Antimony	NS	NS	ND	ND	ND	ND	3.3 J	4.1 J
Arsenic	16	16	6.9	4.9	10.1	**19.5**	**19**	**17**
Barium	400	400	108	89.4	**427**	152	356	*357*
Beryllium	72	590	1.17	0.82	3.07	0.88	1.15	0.91
Cadmium	4.3	9.3	0.51 J	0.36 J	0.66	0.61	*3.46*	*3.38*
Calcium	NS	NS	50,300	57,400	94,800	5,890	23,200	26,800
Chromium (Total)	180	1,500	36	*93.8*	18	17.2	58.6	85.3
Cobalt	NS	NS	4.9 J	3.8 J	2.4 J	5.6	5.5 J	5.9
Copper	270	270	26.5	18.2	42.3	102	**348**	**377**
Iron	NS	NS	19,700	16,600	26,900	13,900	25,300	22,600
Lead	400	1,000	40.3	31.6	115	*760*	*451*	*515*
Magnesium	NS	NS	8,850	7,010	9,880	900	5,090	6,570
Manganese	2,000	10,000	928	1,850	1,520	141	553	454
Mercury	0.81	2.8	0.113	0.075	0.147	0.107	*1.01*	*0.839*
Nickel	310	310	13.6	9.4	8.6	15.1	35.9	34.8
Potassium	NS	NS	1,920	1,500	2,620	720	1,300	1,190
Selenium	180	1,500	1.7	1.9	2.2	2.3	2.3	1.5
Silver	180	1,500	ND	ND	0.1 J	10.7	2.1	2.9
Sodium	NS	NS	280	300	540	200	430	330
Thallium	NS	NS	ND	ND	ND	ND	ND	ND
Vanadium	NS	NS	18.6	19.1	15.8	28.6	21.6	22.6
Zinc	10,000	10,000	117	78.3	149	140	730	764
Chromium, Hexavalent	110	400	ND	--	0.05 J	--	0.19 J	--
Cyanide	27	27	1.09	--	8.83	--	0.94	--

Notes:

All concentrations are reported in parts per million (ppm or mg/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

-- = Not Analyzed

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 4 - Summary of Metals Detected in Surface Soil

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS4-0-2	D-SS4-2-12	D-SS5-0-2	D-SS5-2-12	D-SS6-0-2	D-SS6-2-12
			8/16/2017	8/16/2017	8/16/2017	8/16/2017	8/17/2017	8/17/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
Aluminum	NS	NS	9,800	10,300	11,700	11,300	5,680	4,910
Antimony	NS	NS	ND	ND	ND	ND	ND	ND
Arsenic	16	16	9.1	11.3	5.8	5.6	7.8	5.8
Barium	400	400	146	164	122	121	55	46.7
Beryllium	72	590	0.62	0.61	0.99	0.88	0.81	0.55
Cadmium	4.3	9.3	*2.77*	1.68	1.56	0.96	0.47 J	0.42 J
Calcium	NS	NS	31,500	26,500	57,500	70,100	100,000	54,900
Chromium (Total)	180	1,500	32.9	39.9	20.4	17.1	14.4	9.8
Cobalt	NS	NS	6.4	7.6	5.8	5.7	2.6 J	3.2 J
Copper	270	270	51.2	54.8	106	69.7	10.4	8.7
Iron	NS	NS	22,700	24,300	23,100	20,500	12,500	12,700
Lead	400	1,000	*432*	*525*	189	157	47.1	52.2
Magnesium	NS	NS	9,950	9,430	13,300	19,000	7,170	6,600
Manganese	2,000	10,000	767	761	660	674	685	501
Mercury	0.81	2.8	0.651	0.791	0.295	0.293	0.039	0.034
Nickel	310	310	19.2	20.3	16.7	14	5.6	6.8
Potassium	NS	NS	1,790	1,590	2,260	2,410	740	650
Selenium	180	1,500	1.2	1.1 J	1.8	0.9 J	1.1	0.9 J
Silver	180	1,500	0.6 J	0.4 J	0.3 J	0.2 J	ND	ND
Sodium	NS	NS	210	170	210	230	280	190
Thallium	NS	NS	ND	ND	ND	0.8 J	2.0	ND
Vanadium	NS	NS	24.4	28.2	20.9	20.9	12.8	12.7
Zinc	10,000	10,000	589	432	406	260	81.4	71
Chromium, Hexavalent	110	400	ND	--	ND	--	ND	--
Cyanide	27	27	0.58	--	3.3	--	1.11	--

Notes:

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Table 4 - Summary of Metals Detected in Surface Soil

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS7-0-2	D-SS7-2-12	D-SS8-0-2	D-SS8-2-12	D-SS9-0-2	D-SS9-2-12
			8/17/2017	8/17/2017	8/17/2017	8/17/2017	8/17/2017	8/17/2017
			0-2 inches	2-12 inches	0-2 inches	2-12 inches	0-2 inches	2-12 inches
Aluminum	NS	NS	6,120	9,540	5,890	5,740	6,140	3,390
Antimony	NS	NS	ND	ND	2.2 J	2.8 J	1.5 J	1.2 J
Arsenic	16	16	3.5	5.4	6.5	8.4	4.7	5.7
Barium	400	400	49.6	80.9	81.1	74.8	39.6	39.3
Beryllium	72	590	0.35	0.51	0.37	0.39	0.26 J	0.23 J
Cadmium	4.3	9.3	0.57 J	0.54 J	*8.1*	**11.7**	*5.81*	*7.17*
Calcium	NS	NS	184,000	54,100	15,300	8,230	5,520	4,020
Chromium (Total)	180	1,500	10.9	20.2	55.7	70.3	40.1	96.5
Cobalt	NS	NS	3.7 J	6.1	4 J	2.9 J	1.9 J	3.2 J
Copper	270	270	18.2	36	66.1	89.8	44.3	75.6
Iron	NS	NS	13,000	18,600	26,300	37,000	28,400	38,200
Lead	400	1,000	56.6	87.9	*490*	*609*	299	362
Magnesium	NS	NS	11,100	15,000	2,370	1,840	880	750
Manganese	2,000	10,000	934	451	1,030	1,560	1,010	1,170
Mercury	0.81	2.8	0.181	0.157	0.347	0.256	0.123	0.185
Nickel	310	310	9.9	18.7	21.2	25.6	16.1	40
Potassium	NS	NS	1,520	1,970	1,090	890	660	440
Selenium	180	1,500	ND	1.2	2.2	2	1.3	2.2
Silver	180	1,500	0.09 J	0.1 J	1.5	2.2	1.1	1.3
Sodium	NS	NS	200	200	180	150	130	130
Thallium	NS	NS	4.0	ND	ND	ND	ND	ND
Vanadium	NS	NS	13.7	22.0	14.6	14.3	13.0	11.1
Zinc	10,000	10,000	117	190	1,300	1,890	897	1,110
Chromium, Hexavalent	110	400	0.11 J	--	0.1 J	--	ND	--
Cyanide	27	27	0.08 J	--	1.1	--	0.83	--

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Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SS10-0-2	D-SS10-2-12	F-SB1-0-1	F-SB2-0-1	F-SB3-0-1	F-SB4-0-1
			8/17/2017	8/17/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			0-2 inches	2-12 inches	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aluminum	NS	NS	8,900	9,550	13,500	7,200	18,500	14,600
Antimony	NS	NS	1.6 J	1.7 J	2.8 J	1.5 J	ND	ND
Arsenic	16	16	6.7	5.7	11.8	13.1	14.4	14.9
Barium	400	400	148	154	293	92	216	174
Beryllium	72	590	0.54	0.62	1.7	0.82	2.07	0.75
Cadmium	4.3	9.3	1.16	0.96	1.03	0.88	1.34	0.61
Calcium	NS	NS	36,200	44,800	60,600	56,500	167,000	45,200
Chromium (Total)	180	1,500	21.6	17.3	20.2	14	32.2	29.2
Cobalt	NS	NS	6	5.5 J	4.4 J	4.4 J	5.5 J	3.4 J
Copper	270	270	49.5	44.9	131	44.4	26.9	21.2
Iron	NS	NS	20,900	17,600	23,400	19,400	19,800	44,400
Lead	400	1,000	302	293	*449*	159	90.3	222
Magnesium	NS	NS	11,000	14,300	7,750	14,500	12,700	4,780
Manganese	2,000	10,000	505	497	607	603	1,140	*5,100*
Mercury	0.81	2.8	0.655	0.801	0.394	0.35	0.057	0.044
Nickel	310	310	16.1	14.6	14.7	13.4	15.8	10.3
Potassium	NS	NS	1,780	1,720	1,460	1,330	4,120	1,910
Selenium	180	1,500	0.8 J	0.6 J	1.5	1.4	2.5	3.4
Silver	180	1,500	0.2 J	0.2 J	0.6 J	0.1 J	0.7 J	ND
Sodium	NS	NS	200	200	440	220	540	620
Thallium	NS	NS	ND	ND	ND	1.2	5.7	1 J
Vanadium	NS	NS	21.4	19.9	20.1	17.4	28.3	42.7
Zinc	10,000	10,000	328	271	409	192	246	69.8
Chromium, Hexavalent	110	400	ND	--	0.08 J	ND	0.08 J	0.25 J
Cyanide	27	27	0.41	--	0.94	0.38	0.33	0.22

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Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB1-0-1	D-SB2-0-1	D-SB3-0-1	D-SB4-0-1	D-SB5-0-1	D-SB6-0-1
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aluminum	NS	NS	16,000	8,810	10,100	7,520	23,000	10,300
Antimony	NS	NS	ND	ND	ND	ND	ND	ND
Arsenic	16	16	11.9	13.2	15.2	10	3.6	14.1
Barium	400	400	267	129	158	114	227	175
Beryllium	72	590	2.02	1.01	1.36	0.74	4.37	1.24
Cadmium	4.3	9.3	1.21	1.32	1.35	0.92	0.8	1.07
Calcium	NS	NS	90,900	111,000	91,200	68,300	158,000	131,000
Chromium (Total)	180	1,500	34.6	27.4	29.8	25.3	13.5	164
Cobalt	NS	NS	4.8 J	4.7 J	4.9 J	4.8 J	1.3 J	3.6 J
Copper	270	270	43.8	38.7	42.8	36.8	23.6	26
Iron	NS	NS	28,800	16,400	18,000	14,400	16,500	20,000
Lead	400	1,000	153	144	121	184	37.1	127
Magnesium	NS	NS	14,800	9,900	8,480	11,200	23,400	14,600
Manganese	2,000	10,000	1,480	532	599	455	1,960	*3,070*
Mercury	0.81	2.8	0.154	0.132	0.201	0.447	ND	0.096
Nickel	310	310	13.7	14.6	16	13.1	6.3	11.8
Potassium	NS	NS	2,460	2,210	2,290	1,950	1,450	1,900
Selenium	180	1,500	1.7	1.5	2.1	1.12	1.8	2.34
Silver	180	1,500	0.3 J	0.5 J	0.4 J	0.4 J	ND	0.3 J
Sodium	NS	NS	430	240	270	220	1,420	750
Thallium	NS	NS	1.1 J	3.0	2.0	1.5	2.4	3.6
Vanadium	NS	NS	27.5	24.5	25.6	23.5	8.8	69.7
Zinc	10,000	10,000	253	283	260	211	116	172
Chromium, Hexavalent	110	400	ND	ND	ND	ND	ND	0.91
Cyanide	27	27	4.14	0.46	1.44	0.22	5.18	0.16

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Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB7-0-1	D-SB8-0-1	D-SB9-0-1	D-SB10-0-1	D-SB11-0-1	D-SB12-0-1
			8/21/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aluminum	NS	NS	10,700	5,790	6,980	6,190	13,600	9,780
Antimony	NS	NS	ND	ND	ND	ND	ND	ND
Arsenic	16	16	**17.3**	4.8	4.1	3.2	3.8	5.4
Barium	400	400	171	120	58	51.7	132	73.1
Beryllium	72	590	1.44	0.35	0.49	0.47	1.63	0.48
Cadmium	4.3	9.3	1.3	0.31 J	0.26 J	0.15 J	0.63	0.35 J
Calcium	NS	NS	111,000	42,400	96,400	124,000	113,000	37,900
Chromium (Total)	180	1,500	33.9	9.2	9.9	6.5	8	13.9
Cobalt	NS	NS	5.1 J	4.4 J	3.1 J	2.5 J	2.4 J	8.2
Copper	270	270	77.3	22.3	29.4	14	18	18.9
Iron	NS	NS	18,900	13,900	10,500	7,980	8,640	19,100
Lead	400	1,000	198	161	92.8	18.9	90.5	17.3
Magnesium	NS	NS	9,460	8,740	18,300	17,500	29,100	13,300
Manganese	2,000	10,000	989	306	513	488	1,890	467
Mercury	0.81	2.8	0.28	0.3	0.136	0.115	0.149	0.033 J
Nickel	310	310	16.3	12.8	8.5	7.6	6.5	18.6
Potassium	NS	NS	3,080	800	1,220	1,050	1,590	1,650
Selenium	180	1,500	1.53	0.4 J	0.6 J	ND	1.4	0.9 J
Silver	180	1,500	0.5 J	ND	ND	ND	ND	ND
Sodium	NS	NS	360	150	250	270	450	160
Thallium	NS	NS	2.5	ND	1.9	3.2	1.6	ND
Vanadium	NS	NS	26.1	13.4	14.8	11.3	11.6	22.5
Zinc	10,000	10,000	263	77	74.1	41.2	274	68.4
Chromium, Hexavalent	110	400	ND	ND	ND	ND	ND	ND
Cyanide	27	27	0.44	0.21	0.1	0.22	0.82	0.09 J

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Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB13-0-1	D-SB14-0-1	D-SB15-0-1	D-SB16-0-1	D-SB17-0-1	D-SB18-0-1
			8/22/2017	8/22/2017	8/22/2017	8/23/2017	8/23/2017	8/23/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aluminum	NS	NS	13,500	9,940	7,320	9,730	13,100	6,250
Antimony	NS	NS	ND	ND	ND	ND	ND	ND
Arsenic	16	16	4.6	7.6	3.8	13.3	3.8	3.8
Barium	400	400	117	258	49.2	139	115	55.9
Beryllium	72	590	1.12	0.74	0.32	1.07	2.12	0.34
Cadmium	4.3	9.3	0.38 J	0.97	0.18 J	2.97	0.19 J	0.71
Calcium	NS	NS	69,800	42,600	44,600	39,000	107,000	101,000
Chromium (Total)	180	1,500	12.1	21.9	9.7	30.4	9.5	11.1
Cobalt	NS	NS	4.6 J	5.3 J	5.1 J	4.9 J	1.7 J	3.8 J
Copper	270	270	28.6	35.9	11.5	158	17	23.3
Iron	NS	NS	14,100	18,900	14,000	59,200	10,300	11,500
Lead	400	1,000	193	*692*	9.7	267	64.6	70.4
Magnesium	NS	NS	14,200	9,960	14,600	7,150	13,800	10,800
Manganese	2,000	10,000	919	593	329	1,590	1,730	274
Mercury	0.81	2.8	0.165	ND	0.016 J	0.578	ND	0.089
Nickel	310	310	10.6	14.5	10.4	18.2	6.1	10.6
Potassium	NS	NS	1,650	1,250	1,610	1,080	1,320	1,130
Selenium	180	1,500	1 J	0.9 J	ND	2	1.6	ND
Silver	180	1,500	ND	0.09 J	ND	0.4 J	ND	ND
Sodium	NS	NS	350	210	150	370	490	170
Thallium	NS	NS	ND	ND	ND	ND	1.2	2.2
Vanadium	NS	NS	16.7	19.4	20.7	23.0	8.5	14.3
Zinc	10,000	10,000	112	320	50.5	514	87.4	728
Chromium, Hexavalent	110	400	ND	ND	ND	0.06 J	ND	ND
Cyanide	27	27	0.27	1.64	ND	2.72	0.93	0.04 J

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Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB19-0-1	D-SB20-0-1	D-SB21-0-1	D-SB22-0-1	D-SB23-0-1	D-SB24-0-1
			8/23/2017	8/23/2017	8/23/2017	8/23/2017	8/24/2017	8/24/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aluminum	NS	NS	9,960	7,820	7,640	4,510	6,770	4,930
Antimony	NS	NS	ND	1.1 J	ND	ND	2.4 J	1.6 J
Arsenic	16	16	7.3	5.3	5.9	11.4	10.8	8.9
Barium	400	400	113	123	83.3	52.9	89.8	50.8
Beryllium	72	590	0.99	0.51	0.42	0.29 J	0.78	0.26 J
Cadmium	4.3	9.3	0.53 J	0.69	0.69	*7.3*	*7.47*	**11.3**
Calcium	NS	NS	51,500	58,200	48,700	9,780	22,300	6,710
Chromium (Total)	180	1,500	12.2	12.9	19.7	165	56.4	81.4
Cobalt	NS	NS	5.2 J	5 J	4.4 J	4.9 J	3.5 J	3.1 J
Copper	270	270	72.3	34.7	20.1	149	91.8	92.4
Iron	NS	NS	15,600	15,300	16,900	94,900	37,900	49,600
Lead	400	1,000	151	207	127	398	*559*	*543*
Magnesium	NS	NS	11,700	13,400	17,200	3,360	3,880	800
Manganese	2,000	10,000	712	454	434	1,410	1,620	1,560
Mercury	0.81	2.8	0.447	0.308	0.18	0.297	0.35	0.273
Nickel	310	310	13.1	13.4	12.2	51.1	30	28.2
Potassium	NS	NS	1,300	1,390	1,200	590	750	300
Selenium	180	1,500	1 J	ND	ND	2.4	1.8	2.29
Silver	180	1,500	0.1 J	0.1 J	0.2 J	1.5	1.7	2
Sodium	NS	NS	250	210	500	140	230	160
Thallium	NS	NS	ND	ND	ND	ND	ND	ND
Vanadium	NS	NS	17.5	17.9	21.2	19.6	16.9	15.6
Zinc	10,000	10,000	161	124	173	1,200	1,330	1,960
Chromium, Hexavalent	110	400	ND	0.2 J	ND	0.24 J	0.23 J	0.31 J
Cyanide	27	27	0.22	0.049 J	0.08 J	1.24	1.55	0.578

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Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB25-0-1	D-SB26-0-1	D-SB27-0-1	D-SB28-0-1	D-SB29-0-1	D-SB30-0-1
			8/24/2017	8/24/2017	8/24/2017	8/24/2017	8/24/2017	8/25/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aluminum	NS	NS	3,880	20,700	8,060	9,590	6,650	4,130
Antimony	NS	NS	3.1 J	1.9 J	ND	ND	ND	ND
Arsenic	16	16	6.4	6.7	4.9	9	3.2	10.3
Barium	400	400	52.7	216	82.5	93.1	61.7	222
Beryllium	72	590	0.29 J	3.25	0.7	0.72	0.33	0.38
Cadmium	4.3	9.3	**13.3**	2.74	0.5 J	0.45 J	0.37 J	0.3 J
Calcium	NS	NS	9,930	120,000	33,100	76,200	88,100	68,400
Chromium (Total)	180	1,500	60.4	20	12.1	16.1	10.4	8.1
Cobalt	NS	NS	2.4 J	2.8 J	5 J	5.2 J	3.8 J	3 J
Copper	270	270	99.5	88	30.5	31.7	37.6	36.4
Iron	NS	NS	28,300	16,700	15,000	31,300	11,500	11,400
Lead	400	1,000	*767*	249	79.7	76.8	108	117
Magnesium	NS	NS	2,700	27,000	6,450	17,800	26,600	4,100
Manganese	2,000	10,000	1,640	1,790	306	552	286	105
Mercury	0.81	2.8	0.152	ND	**3.1**	0.089	0.199	0.046
Nickel	310	310	24.6	11.6	14.4	17.5	9.8	12.9
Potassium	NS	NS	380	1,680	1,350	1,780	1,390	680
Selenium	180	1,500	1.7	2.38	0.56 J	1.21	ND	0.7 J
Silver	180	1,500	2.9	1.4	0.08 J	ND	ND	1.5
Sodium	NS	NS	120	740	220	620	290	270
Thallium	NS	NS	ND	0.7 J	ND	0.9 J	1.6	0.8 J
Vanadium	NS	NS	11.1	14.0	13.7	22.0	16.8	16.7
Zinc	10,000	10,000	2,310	587	183	110	107	178
Chromium, Hexavalent	110	400	ND	0.21 J	0.15 J	0.06 J	ND	ND
Cyanide	27	27	0.458	1.14	0.69	0.13	ND	0.2

Notes:

All concentrations are reported in parts per million (ppm or mg/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

-- = Not Analyzed

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 4 - Summary of Metals Detected in Surface Soil

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB31-0-1	D-SB32-0-1	D-SB33-0-1	D-SB34-0-1	D-SB35-0-1	D-SB36-0-1
			8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aluminum	NS	NS	10,100	13,100	5,900	21,300	21,800	3,670
Antimony	NS	NS	ND	1.5 J	ND	ND	5.9 J	2.9 J
Arsenic	16	16	6.8	7.5	15	8	**18.3**	3.5
Barium	400	400	147	265	371	279	**879**	36
Beryllium	72	590	1.49	1.78	0.77	3.02	2.14	0.47
Cadmium	4.3	9.3	1.36	3.33	1.47	2.21	**24**	1.01
Calcium	NS	NS	172,000	129,000	47,500	102,000	86,200	12,600
Chromium (Total)	180	1,500	44.3	104	56.4	59	*637*	10.2
Cobalt	NS	NS	2.1 J	1.9 J	4 J	2.3 J	7	1.6 J
Copper	270	270	122	265	**449**	153	**1,520**	**279**
Iron	NS	NS	13,000	13,600	15,500	24,100	32,500	6,180
Lead	400	1,000	113	317	**1,020**	224	*754*	64.4
Magnesium	NS	NS	11,500	13,600	4,160	13,000	11,200	3,140
Manganese	2,000	10,000	823	1,010	481	*2,140*	932	253
Mercury	0.81	2.8	0.074	0.122	0.716	0.185	0.138	0.255
Nickel	310	310	10.8	13.8	25.6	11.2	46.4	5.8
Potassium	NS	NS	930	1,200	630	1,860	1,860	400
Selenium	180	1,500	1.5	2.2	1.9	3.2	2.1	0.8 J
Silver	180	1,500	0.6 J	2.6	0.6 J	1.3	16.6	0.1 J
Sodium	NS	NS	440	610	410	720	760	130
Thallium	NS	NS	4.1	2.4	ND	ND	0.8 J	ND
Vanadium	NS	NS	12.2	14.4	12.7	13.3	26.8	7.3
Zinc	10,000	10,000	244	557	480	325	4,730	540
Chromium, Hexavalent	110	400	ND	ND	ND	ND	0.38 J	0.09 J
Cyanide	27	27	0.46	0.38	0.18	0.707	1.14	0.11

Notes:

All concentrations are reported in parts per million (ppm or mg/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

-- = Not Analyzed

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 4 - Summary of Metals Detected in Surface Soil

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth						
			D-SB37-0-1	D-SB38-0-1	D-SB39-0-1	D-SB40-0-1	D-SB41-0-1	D-SB42-0-1	D-SB43-0-1
			8/25/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017
			0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet	0-1 feet
Aluminum	NS	NS	60,500	9,590	8,500	7,500	9,890	5,410	5,260
Antimony	NS	NS	5.1 J	ND	ND	ND	ND	ND	ND
Arsenic	16	16	12.8	8.3	7.1	12.6	6.7	4.9	6.8
Barium	400	400	287	90.1	83.7	76.5	77.3	56	74
Beryllium	72	590	3.07	0.88	0.84	0.73	0.71	0.35	0.35
Cadmium	4.3	9.3	2.36	0.31 J	0.36 J	0.66	0.56	0.48 J	3.29
Calcium	NS	NS	82,800	96,500	101,000	70,800	42,000	70,100	39,800
Chromium (Total)	180	1,500	51.9	11.7	10	17.3	12.8	9.5	29.6
Cobalt	NS	NS	3.5 J	5.1 J	3.8 J	6.3	7.4	3.4 J	3.5 J
Copper	270	270	**2,740**	21.9	24.3	43.4	50.4	24.6	**1,420**
Iron	NS	NS	14,000	15,400	14,200	21,800	23,900	10,600	19,200
Lead	400	1,000	378	38.1	70.7	108	45.8	107	310
Magnesium	NS	NS	15,700	15,100	17,100	6,470	12,400	11,800	12,400
Manganese	2,000	10,000	*2,610*	784	787	426	402	266	648
Mercury	0.81	2.8	0.232	0.024 J	0.103	0.626	0.19	0.225	0.425
Nickel	310	310	28.9	12.8	10.1	16.6	18.9	9.5	5.5
Potassium	NS	NS	1,390	1,420	1,250	990	1,270	1,150	900
Selenium	180	1,500	2.7	0.9 J	0.9 J	1.5	0.6 J	0.5 J	1 J
Silver	180	1,500	0.7 J	ND	ND	0.1 J	ND	ND	0.9 J
Sodium	NS	NS	730	290	300	210	190	240	200
Thallium	NS	NS	ND	2.2	2.1	1.3	ND	1.8	ND
Vanadium	NS	NS	17.7	16.0	12.8	17.4	17.6	15.1	16.5
Zinc	10,000	10,000	896	67.6	63.3	140	128	117	1,090
Chromium, Hexavalent	110	400	0.21 J	ND	ND	ND	ND	ND	0.08 J
Cyanide	27	27	ND	0.19	0.59	0.29	0.15	0.09 J	0.25

Notes:

All concentrations are reported in parts per million (ppm or mg/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

-- = Not Analyzed

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 5 - Summary of Volatile Organic Compounds (VOCs) Detected in Surface Soils

	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth
			F-SB4-0-1
			8/21/2017
			0-1 feet
Total VOCs	NS	NS	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

Table 6 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Subsurface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			F-SB1-1-6	F-SB2-1-6	F-SB3-1-6	F-SB4-1-6	D-SB1-1-6	D-SB2-1-6
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
m,p-Cresols	100,000	500,000	ND	ND	ND	ND	ND	ND
Acenaphthene	100,000	500,000	ND	ND	ND	ND	1300	ND
Acenaphthylene	100,000	500,000	ND	170 J	ND	ND	ND	86 J
Anthracene	100,000	500,000	110 J	320 J	ND	200 J	2,900	300 J
Benz(a)anthracene	1,000	5,600	290 J	*1,100*	*1,800 J*	560	*3,700*	880
Benzo(a)pyrene	1,000	1,000	310 J	**1,100**	**2,500**	490	**2,900**	820
Benzo(b)fluoranthene	1,000	5,600	350	*1,300*	*2,200*	650	*3,200*	990
Benzo(g,h,i)perylene	100,000	500,000	190 J	550	1,600 J	290 J	1,100 J	520
Benzo(k)fluouranthene	3,900	56,000	120 J	460	770 J	220 J	1,100 J	390
Chrysene	3,900	56,000	290 J	1,100	2,000	600	3,300	830
Dibenz(a,h)anthracene	330	560	ND	150 J	ND	85 J	*370 J*	130 J
Dibenzofuran	59,000	350,000	ND	ND	ND	100 J	930 J	ND
Fluouranthene	100,000	500,000	600	2,600	2,400	1,300	8,700	1,900
Fluourene	100,000	500,000	ND	110 J	ND	ND	1,300	100 J
Hexachlorobenzene	1,200	6,000	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	220 J	*690*	*1,100 J*	350 J	*1,500*	*630*
Naphthalene	100,000	500,000	ND	ND	ND	100 J	410 J	ND
Phenanthrene	100,000	500,000	410	1,500	830 J	1,100	9,500	1,100
Phenol	100,000	500,000	ND	ND	ND	ND	ND	ND
Pyrene	100,000	500,000	500	2,100	2,600	1,100	7,200	1,500
Total SVOCs	NS	NS	3,390	13,250	17,800	7,145	49,410	10,176

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 6 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Subsurface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB3-1-6	D-SB4-1-6	D-SB5-1-6	D-SB6-1-6	D-SB7-1-6	D-SB8-1-6
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/22/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
m,p-Cresols	100,000	500,000	ND	ND	ND	ND	ND	ND
Acenaphthene	100,000	500,000	ND	160 J	ND	ND	120 J	ND
Acenaphthylene	100,000	500,000	ND	86 J	ND	ND	200 J	100 J
Anthracene	100,000	500,000	140 J	450	ND	ND	470	330 J
Benz(a)anthracene	1,000	5,600	350 J	*1,100*	860 J	850 J	*1,600*	930
Benzo(a)pyrene	1,000	1,000	340 J	**1,400**	820 J	820 J	**1,600**	920
Benzo(b)fluoranthene	1,000	5,600	420	*1,300*	1,000 J	1,000 J	*2,100*	1,000
Benzo(g,h,i)perylene	100,000	500,000	200 J	860	510 J	480 J	740	540
Benzo(k)fluouranthene	3,900	56,000	150 J	420	ND	ND	660	350 J
Chrysene	3,900	56,000	320 J	1,200	810 J	870 J	1,900	880
Dibenz(a,h)anthracene	330	560	ND	200 J	ND	ND	220 J	140 J
Dibenzofuran	59,000	350,000	ND	120 J	ND	ND	130 J	ND
Fluouranthene	100,000	500,000	730	2,300	1,600 J	1,600 J	3,500	1,900
Fluourene	100,000	500,000	ND	200 J	ND	ND	220 J	120 J
Hexachlorobenzene	1,200	6,000	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	250 J	800	*550 J*	*530 J*	*870*	*630*
Naphthalene	100,000	500,000	250 J	100 J	ND	ND	170 J	80 J
Phenanthrene	100,000	500,000	530	1,700	1,200 J	1,300 J	1,900	1,100
Phenol	100,000	500,000	ND	ND	ND	ND	ND	ND
Pyrene	100,000	500,000	630	2,200	1,400 J	1,400 J	3,300	1,600
Total SVOCs	NS	NS	4,310	14,596	8,750	8,850	19,700	10,620

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 6 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Subsurface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB9-1-6	D-SB10-1-6	D-SB11-1-6	D-SB12-1-6	D-SB13-1-6	D-SB14-1-6
			8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
m,p-Cresols	100,000	500,000	ND	ND	ND	ND	ND	ND
Acenaphthene	100,000	500,000	930 J	1,200 J	ND	430 J	ND	ND
Acenaphthylene	100,000	500,000	ND	ND	ND	270 J	ND	ND
Anthracene	100,000	500,000	3,600	3,400	ND	1,300	100 J	190 J
Benz(a)anthracene	1,000	5,600	*4,600*	*4,800*	*1,100 J*	*3,300*	290 J	580
Benzo(a)pyrene	1,000	1,000	**3,600**	**4,100**	**1,200 J**	**3,200**	310 J	940
Benzo(b)fluoranthene	1,000	5,600	*4,100*	*4,700*	*1,100 J*	*3,800*	370	1,000
Benzo(g,h,i)perylene	100,000	500,000	1,500	1,900	570 J	1,600	190 J	750
Benzo(k)fluouranthene	3,900	56,000	1,500	1,800 J	ND	1,400	130 J	320 J
Chrysene	3,900	56,000	3,900	*4,100*	1,100 J	3,100	290 J	620
Dibenz(a,h)anthracene	330	560	*550 J*	**600 J**	ND	*460 J*	ND	160 J
Dibenzofuran	59,000	350,000	1,300	890 J	ND	310 J	ND	ND
Fluouranthene	100,000	500,000	10,000	11,000	1,200 J	6,600	570	1,000
Fluourene	100,000	500,000	2,300	1,800 J	ND	570 J	ND	ND
Hexachlorobenzene	1,200	6,000	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	*2,000*	*2,400*	*580 J*	*2,000*	200 J	*780*
Naphthalene	100,000	500,000	250 J	ND	ND	260 J	ND	ND
Phenanthrene	100,000	500,000	10,000	11,000	790 J	4,600	380	610
Phenol	100,000	500,000	ND	ND	ND	ND	ND	ND
Pyrene	100,000	500,000	7,600	8,700	1,800 J	5,400	490	950
Total SVOCs	NS	NS	57,730	62,390	9,440	38,600	3,320	7,900

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 6 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Subsurface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB15-1-6	D-SB16-1-6	D-SB17-1-6	D-SB18-1-6	D-SB19-1-6	D-SB20-1-6
			8/22/2017	8/23/2017	8/23/2017	8/23/2017	8/23/2017	8/23/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
m,p-Cresols	100,000	500,000	ND	ND	ND	ND	ND	ND
Acenaphthene	100,000	500,000	ND	ND	840	2,800	ND	1,900
Acenaphthylene	100,000	500,000	ND	ND	ND	570 J	ND	940
Anthracene	100,000	500,000	110 J	250 J	2,600	6,100	450 J	8,300
Benz(a)anthracene	1,000	5,600	310 J	750	*2,900*	**9,000**	*1,200*	**9,900**
Benzo(a)pyrene	1,000	1,000	310 J	680 J	**2,100**	**6,800**	980	**7,500**
Benzo(b)fluoranthene	1,000	5,600	370 J	870	*2,600*	**8,000**	*1,300*	**9,400**
Benzo(g,h,i)perylene	100,000	500,000	180 J	450 J	1,100	3,800	660 J	4,400
Benzo(k)fluouranthene	3,900	56,000	130 J	290 J	900	3,700	630 J	*4,000*
Chrysene	3,900	56,000	300 J	730	2,500	7,900	1,100	*8,500*
Dibenz(a,h)anthracene	330	560	ND	ND	ND	**1,100**	ND	**1,400**
Dibenzofuran	59,000	350,000	ND	ND	1,000	2,700	ND	2,500
Fluouranthene	100,000	500,000	610	1,300	6,600	17,000	2,300	27,000
Fluourene	100,000	500,000	ND	ND	1,400	3,800	ND	4,900
Hexachlorobenzene	1,200	6,000	ND	ND	ND	ND	480 J	ND
Indeno(1,2,3-cd)pyrene	500	5,600	210 J	380 J	*1,000*	*3,400*	*580 J*	*4,400*
Naphthalene	100,000	500,000	ND	ND	1,100	5,500	1,700	1,600
Phenanthrene	100,000	500,000	340 J	1,100	7,300	22,000	1,800	26,000
Phenol	100,000	500,000	ND	ND	ND	ND	ND	ND
Pyrene	100,000	500,000	520	1,300	5,200	15,000	2,100	19,000
Total SVOCs	NS	NS	3,390	8,100	39,140	119,170	15,280	141,640

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 6 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Subsurface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB21-1-6	D-SB22-1-6	D-SB23-1-6	D-SB24-1-6	D-SB25-1-6	D-SB26-1-6
			8/23/2017	8/23/2017	8/24/2017	8/24/2017	8/24/2017	8/24/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
m,p-Cresols	100,000	500,000	ND	ND	ND	ND	ND	ND
Acenaphthene	100,000	500,000	ND	ND	ND	ND	ND	1,000 J
Acenaphthylene	100,000	500,000	ND	ND	ND	ND	ND	ND
Anthracene	100,000	500,000	370 J	ND	ND	270 J	250 J	2,900
Benz(a)anthracene	1,000	5,600	840	240 J	230 J	410 J	280 J	*4,800*
Benzo(a)pyrene	1,000	1,000	770 J	230 J	260 J	300 J	ND	**3,700**
Benzo(b)fluoranthene	1,000	5,600	980	330 J	350 J	460 J	250 J	*4,600*
Benzo(g,h,i)perylene	100,000	500,000	560 J	ND	ND	230 J	ND	2,300
Benzo(k)fluouranthene	3,900	56,000	380 J	ND	ND	ND	ND	1,800
Chrysene	3,900	56,000	780 J	310 J	290 J	740 J	470 J	*4,100*
Dibenz(a,h)anthracene	330	560	ND	ND	ND	ND	ND	**650 J**
Dibenzofuran	59,000	350,000	ND	ND	ND	ND	ND	830 J
Fluouranthene	100,000	500,000	1,400	410 J	320 J	690 J	680 J	11,000
Fluourene	100,000	500,000	ND	ND	ND	ND	ND	1,400
Hexachlorobenzene	1,200	6,000	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	470 J	ND	ND	ND	ND	*2,000*
Naphthalene	100,000	500,000	300 J	ND	ND	340 J	ND	3,900
Phenanthrene	100,000	500,000	1,200	440 J	290 J	870	790	9,600
Phenol	100,000	500,000	ND	ND	ND	290 J	410 J	ND
Pyrene	100,000	500,000	1,300	420 J	330 J	660 J	650 J	8,600
Total SVOCs	NS	NS	9,350	2,380	2,070	5,260	3,780	63,180

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 6 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Subsurface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB27-1-6	D-SB28-1-6	D-SB29-1-6	D-SB30-1-8	D-SB31-1-8	D-SB32-1-8
			8/24/2017	8/24/2017	8/24/2017	8/25/2017	8/25/2017	8/25/2017
			1-6 feet	1-6 feet	1-6 feet	1-8 feet	1-8 feet	1-8 feet
m,p-Cresols	100,000	500,000	ND	ND	ND	200 J	370 J	120 J
Acenaphthene	100,000	500,000	ND	ND	510 J	ND	200 J	ND
Acenaphthylene	100,000	500,000	ND	ND	ND	ND	170 J	ND
Anthracene	100,000	500,000	ND	ND	1,600	110 J	740	ND
Benz(a)anthracene	1,000	5,600	ND	1,000 J	*4,600*	280 J	*1,700*	140 J
Benzo(a)pyrene	1,000	1,000	ND	850 J	**3,600**	190 J	**1,500**	150 J
Benzo(b)fluoranthene	1,000	5,600	ND	*1,100 J*	*4,200*	240 J	*2,100*	200 J
Benzo(g,h,i)perylene	100,000	500,000	ND	660 J	1,800	ND	930	ND
Benzo(k)fluouranthene	3,900	56,000	ND	430 J	1,900	ND	800	ND
Chrysene	3,900	56,000	ND	1,000 J	3,700	220 J	1,800	160 J
Dibenz(a,h)anthracene	330	560	ND	ND	*540 J*	ND	220 J	ND
Dibenzofuran	59,000	350,000	ND	ND	310 J	ND	200 J	ND
Fluouranthene	100,000	500,000	520 J	1,800	8,300	520	4,100	270 J
Fluourene	100,000	500,000	ND	ND	500 J	ND	380 J	ND
Hexachlorobenzene	1,200	6,000	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	ND	*530 J*	*1,700*	ND	*940*	ND
Naphthalene	100,000	500,000	ND	ND	330 J	ND	250 J	ND
Phenanthrene	100,000	500,000	470 J	1,500	5,800	360 J	2,900	220 J
Phenol	100,000	500,000	ND	ND	ND	ND	ND	ND
Pyrene	100,000	500,000	510 J	1,800	8,400	460	3,600	270 J
Total SVOCs	NS	NS	1,500	10,670	47,790	2,580	22,900	1,530

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 6 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Subsurface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB33-1-8	D-SB34-1-8	D-SB35-1-8	D-SB36-1-8	D-SB37-1-8	D-SB38-1-6
			8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/29/2017
			1-8 feet	1-8 feet	1-8 feet	1-8 feet	1-8 feet	1-6 feet
m,p-Cresols	100,000	500,000	ND	ND	ND	ND	ND	ND
Acenaphthene	100,000	500,000	11,000	1,200 J	ND	100 J	250 J	ND
Acenaphthylene	100,000	500,000	1,700 J	ND	ND	ND	500 J	ND
Anthracene	100,000	500,000	32,000	3,700	190 J	210 J	1,400	ND
Benz(a)anthracene	1,000	5,600	**39,000**	*5,000*	410 J	410 J	*4,300*	260 J
Benzo(a)pyrene	1,000	1,000	**31,000**	**4,100**	320 J	330 J	**4,400**	240 J
Benzo(b)fluoranthene	1,000	5,600	**34,000**	*5,300*	480	420	*4,900*	340 J
Benzo(g,h,i)perylene	100,000	500,000	16,000	2,700	250 J	220 J	2,700	ND
Benzo(k)fluouranthene	3,900	56,000	*14,000*	1,800	180 J	180 J	1,900	ND
Chrysene	3,900	56,000	*34,000*	*4,600*	450	380 J	3,600	320 J
Dibenz(a,h)anthracene	330	560	**4,800 J**	**710 J**	ND	ND	**730 J**	ND
Dibenzofuran	59,000	350,000	13,000	1,300	ND	ND	340 J	ND
Fluouranthene	100,000	500,000	91,000	12,000	1,000	880	7,900	420 J
Fluourene	100,000	500,000	24,000	2,000	ND	110 J	540 J	ND
Hexachlorobenzene	1,200	6,000	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	**18,000**	*2,900*	250 J	230 J	*3,200*	ND
Naphthalene	100,000	500,000	13,000	540 J	97 J	110 J	240 J	ND
Phenanthrene	100,000	500,000	*110,000*	11,000	760	940	4,900	320 J
Phenol	100,000	500,000	ND	ND	2,600	ND	ND	ND
Pyrene	100,000	500,000	72,000	9,600	850	710	6,300	440 J
Total SVOCs	NS	NS	558,500	68,450	7,837	5,230	48,100	2,340

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 6 - Summary of Semi-Volatile Organic Compounds (SVOCs) Detected in Subsurface Soil

SVOCs	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth				
			D-SB39-1-6	D-SB40-1-6	D-SB41-1-6	D-SB42-1-6	D-SB43-1-6
			8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
m,p-Cresols	100,000	500,000	ND	ND	ND	ND	ND
Acenaphthene	100,000	500,000	ND	ND	2,300	ND	ND
Acenaphthylene	100,000	500,000	ND	ND	590 J	ND	ND
Anthracene	100,000	500,000	330 J	ND	7,400	ND	290 J
Benz(a)anthracene	1,000	5,600	660 J	ND	**14,000**	460 J	660 J
Benzo(a)pyrene	1,000	1,000	510 J	320 J	**11,000**	400 J	560 J
Benzo(b)fluoranthene	1,000	5,600	630 J	240 J	**14,000**	490 J	740 J
Benzo(g,h,i)perylene	100,000	500,000	400 J	ND	6,100	ND	370 J
Benzo(k)fluouranthene	3,900	56,000	260 J	ND	*6,500*	ND	310 J
Chrysene	3,900	56,000	610 J	ND	*12,000*	450 J	680 J
Dibenz(a,h)anthracene	330	560	ND	ND	**1,900**	ND	ND
Dibenzofuran	59,000	350,000	ND	ND	1,100	ND	ND
Fluouranthene	100,000	500,000	1,300	ND	28,000	830 J	1,300
Fluourene	100,000	500,000	ND	ND	2,400	ND	ND
Hexachlorobenzene	1,200	6,000	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	5,600	340 J	ND	**5,800**	ND	290 J
Naphthalene	100,000	500,000	ND	ND	660 J	ND	260 J
Phenanthrene	100,000	500,000	1,200	ND	18,000	690 J	970
Phenol	100,000	500,000	ND	ND	ND	ND	ND
Pyrene	100,000	500,000	1,100	ND	24,000	720 J	1,100
Total SVOCs	NS	NS	7,340	560	155,750	4,040	7,530

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 7 - Summary of Pesticides Detected in Subsurface Soils

Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			F-SB1-1-6	F-SB2-1-6	F-SB3-1-6	F-SB4-1-6	D-SB1-1-6	D-SB2-1-6
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	ND	8.0 J	ND	ND	13	7.5 J
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND
Endosulfan II	24,000	200,000	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	ND	ND	ND	ND	8.3 J	ND
alpha-Chlordane	4,200	24,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	5.7 J	ND
Total Pesticides	NS	NS	ND	8	ND	ND	27	8

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 7 - Summary of Pesticides Detected in Subsurface Soils

Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB3-1-6	D-SB4-1-6	D-SB5-1-6	D-SB6-1-6	D-SB7-1-6	D-SB8-1-6
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/22/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	*18,000*	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	ND	ND	ND	ND	**54,000**	8.4 J
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND
Endosulfan II	24,000	200,000	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	ND	ND	ND	ND	10,000	ND
alpha-Chlordane	4,200	24,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	ND	ND	ND	ND	82,000	8

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 7 - Summary of Pesticides Detected in Subsurface Soils

Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB9-1-6	D-SB10-1-6	D-SB11-1-6	D-SB12-1-6	D-SB13-1-6	D-SB14-1-6
			8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	10	ND
4,4'-DDT	7,900	47,000	ND	ND	76	ND	14 B	ND
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	29	ND	ND	ND
Endosulfan II	24,000	200,000	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	ND	ND	ND	ND	ND	ND
alpha-Chlordane	4,200	24,000	ND	6.7 J	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	ND	7	105	ND	24	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 7 - Summary of Pesticides Detected in Subsurface Soils

Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB15-1-6	D-SB16-1-6	D-SB17-1-6	D-SB18-1-6	D-SB19-1-6	D-SB20-1-6
			8/22/2017	8/23/2017	8/23/2017	8/23/2017	8/23/2017	8/23/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	6.6 BJ	ND	ND	ND	ND	ND
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	*230 P*	ND
Endosulfan II	24,000	200,000	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	ND	ND	ND	ND	ND	ND
alpha-Chlordane	4,200	24,000	ND	ND	9.9 J	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	7	ND	9.9	ND	230	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 7 - Summary of Pesticides Detected in Subsurface Soils

Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB21-1-6	D-SB22-1-6	D-SB23-1-6	D-SB24-1-6	D-SB25-1-6	D-SB26-1-6
			8/23/2017	8/23/2017	8/24/2017	8/24/2017	8/24/2017	8/24/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	ND	100	6.9	88	53	48
Aldrin	97	680	ND	ND	ND	19	18	18 J
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND
Endosulfan II	24,000	200,000	ND	ND	ND	ND	30	31
Endrin	11,000	89,000	ND	75	ND	57	35	42
alpha-Chlordane	4,200	24,000	ND	ND	ND	7.2 J	ND	ND
Lindane	1,300	9,200	ND	ND	ND	6.7 J	ND	ND
Total Pesticides	NS	NS	ND	175	6.9	177.9	136	139

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 7 - Summary of Pesticides Detected in Subsurface Soils

Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB27-1-6	D-SB28-1-6	D-SB29-1-6	D-SB30-1-8	D-SB31-1-8	D-SB32-1-8
			8/24/2017	8/24/2017	8/24/2017	8/25/2017	8/25/2017	8/25/2017
			1-6 feet	1-6 feet	1-6 feet	1-8 feet	1-8 feet	1-8 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	ND	33	9.6 J	ND	ND	ND
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	11 P	ND	ND	ND	ND
Endosulfan II	24,000	200,000	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	ND	ND	ND	ND	ND	ND
alpha-Chlordane	4,200	24,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	ND	44	9.6	ND	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 7 - Summary of Pesticides Detected in Subsurface Soils

Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB33-1-8	D-SB34-1-8	D-SB35-1-8	D-SB36-1-8	D-SB37-1-8	D-SB38-1-6
			8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/29/2017
			1-8 feet	1-8 feet	1-8 feet	1-8 feet	1-8 feet	1-6 feet
4,4'-DDD	13,000	92,000	9.2 J	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	11 J	ND	ND	ND	ND	ND
Aldrin	97	680	ND	ND	ND	ND	ND	ND
Dieldrin	200	1,400	ND	ND	ND	ND	ND	ND
Endosulfan II	24,000	200,000	ND	ND	ND	ND	ND	ND
Endrin	11,000	89,000	ND	ND	ND	ND	ND	ND
alpha-Chlordane	4,200	24,000	ND	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	19	ND	ND	7.6 J	ND
Total Pesticides	NS	NS	20.2	19	ND	ND	7.6	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 7 - Summary of Pesticides Detected in Subsurface Soils

Pesticide	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth				
			D-SB39-1-6	D-SB40-1-6	D-SB41-1-6	D-SB42-1-6	D-SB43-1-6
			8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
4,4'-DDD	13,000	92,000	ND	ND	ND	ND	ND
4,4'-DDE	8,900	62,000	ND	ND	ND	ND	ND
4,4'-DDT	7,900	47,000	ND	6.5 J	52	6.3 J	67
Aldrin	97	680	ND	ND	ND	ND	21
Dieldrin	200	1,400	ND	ND	ND	ND	ND
Endosulfan II	24,000	200,000	ND	ND	ND	ND	36
Endrin	11,000	89,000	ND	ND	ND	ND	46
alpha-Chlordane	4,200	24,000	ND	ND	ND	ND	ND
Lindane	1,300	9,200	ND	ND	14	ND	ND
Total Pesticides	NS	NS	ND	7	66	6	170

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

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J = Estimated value

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Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 8 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Subsurface Soils

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			F-SB1-1-6	F-SB2-1-6	F-SB3-1-6	F-SB4-1-6	D-SB1-1-6	D-SB2-1-6
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1260	NS	NS	ND	ND	ND	ND	88	52
Total PCBs	1,000	1,000	ND	ND	ND	ND	88	52

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

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Table 8 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Subsurface Soils

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB3-1-6	D-SB4-1-6	D-SB5-1-6	D-SB6-1-6	D-SB7-1-6	D-SB8-1-6
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/22/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1260	NS	NS	41	ND	ND	ND	ND	30 J
Total PCBs	1,000	1,000	41	ND	ND	ND	ND	30

Notes:

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SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

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J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

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Table 8 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Subsurface Soils

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB9-1-6	D-SB10-1-6	D-SB11-1-6	D-SB12-1-6	D-SB13-1-6	D-SB14-1-6
			8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1260	NS	NS	58	22J	770	37 J	ND	27 J
Total PCBs	1,000	1,000	58	22	770	37	ND	27

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 8 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Subsurface Soils

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB15-1-6	D-SB16-1-6	D-SB17-1-6	D-SB18-1-6	D-SB19-1-6	D-SB20-1-6
			8/22/2017	8/23/2017	8/23/2017	8/23/2017	8/23/2017	8/23/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	ND	ND	630	ND
Aroclor 1260	NS	NS	87	ND	31 J	370	850	31 J
Total PCBs	1,000	1,000	87	ND	31	370	**1,480**	31

Notes:

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P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 8 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Subsurface Soils

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB21-1-6	D-SB22-1-6	D-SB23-1-6	D-SB24-1-6	D-SB25-1-6	D-SB26-1-6
			8/23/2017	8/23/2017	8/24/2017	8/24/2017	8/24/2017	8/24/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aroclor 1248	NS	NS	ND	2,200	110	1,500	1,300	1,200
Aroclor 1254	NS	NS	ND	2,800	110	2,400	1,300	940
Aroclor 1260	NS	NS	ND	630	59	470	250	550
Total PCBs	1,000	1,000	ND	**5,630**	279	**4,370**	**2,850**	**2,690**

Notes:

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ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

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P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 8 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Subsurface Soils

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB27-1-6	D-SB28-1-6	D-SB29-1-6	D-SB30-1-8	D-SB31-1-8	D-SB32-1-8
			8/24/2017	8/24/2017	8/24/2017	8/25/2017	8/25/2017	8/25/2017
			1-6 feet	1-6 feet	1-6 feet	1-8 feet	1-8 feet	1-8 feet
Aroclor 1248	NS	NS	51	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	110	ND	ND	ND	ND	ND
Aroclor 1260	NS	NS	30 JP	550	ND	ND	ND	ND
Total PCBs	1,000	1,000	191	550	ND	ND	ND	ND

Notes:

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ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 8 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Subsurface Soils

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB33-1-8	D-SB34-1-8	D-SB35-1-8	D-SB36-1-8	D-SB37-1-8	D-SB38-1-6
			8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/29/2017
			1-8 feet	1-8 feet	1-8 feet	1-8 feet	1-8 feet	1-6 feet
Aroclor 1248	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1254	NS	NS	ND	ND	ND	ND	ND	ND
Aroclor 1260	NS	NS	ND	ND	ND	ND	33 J	29 J
Total PCBs	1,000	1,000	ND	ND	ND	ND	33	29

Notes:

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NS = No Standard

J = Estimated value

P = Contrentration <25% Difference The TGC Columns

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

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Table 8 - Summary of Polychlorinated Biphenyls (PCBs) Detected in Subsurface Soils

PCB	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth				
			D-SB39-1-6	D-SB40-1-6	D-SB41-1-6	D-SB42-1-6	D-SB43-1-6
			8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aroclor 1248	NS	NS	ND	68	ND	ND	930
Aroclor 1254	NS	NS	ND	ND	ND	ND	1,600
Aroclor 1260	NS	NS	28 J	80	1,100	ND	330
Total PCBs	1,000	1,000	28	148	**1,100**	ND	**2,860**

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

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Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 9 - Summary of Metals Detected in Subsurface Soils

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			F-SB1-1-6	F-SB2-1-6	F-SB3-1-6	F-SB4-1-6	D-SB1-1-6	D-SB2-1-6
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aluminum	NS	NS	5,640	7,950	10,600	6,530	8,830	14,900
Antimony	NS	NS	1.1 J	1.3 J	ND	ND	ND	ND
Arsenic	16	16	3.6	9.1	6.5	6.8	11.8	10.1
Barium	400	400	53.5	115	104	75	224	192
Beryllium	72	590	0.33	0.59	0.68	0.35 J	0.94	2.19
Cadmium	4.3	9.30	0.32 J	1.11	0.76	0.47 J	1.17	1.74
Calcium	NS	NS	141,000	69,400	65,500	60,300	49,300	101,000
Chromium (Total)	180	1,500	9.5	15.1	30.5	13.3	20.3	30.1
Cobalt	NS	NS	2.9 J	5.3 J	7.4	4.7 J	5.1 J	4.0 J
Copper	270	270	31.9	34.1	38.6	23.5	70.1	68
Iron	NS	NS	9,100	42,400	28,000	21,800	21,300	21,500
Lead	400	1,000	87.1	80	74.3	127	*623*	92.8
Magnesium	NS	NS	8,340	10,600	21,000	21,800	7,270	15,400
Manganese	2,000	10,000	288	656	717	511	425	856
Mercury	0.81	2.8	0.077	0.115	0.123	0.324	0.222	0.113
Nickel	310	310	6.9	15.3	23.8	12.2	13.7	14
Potassium	NS	NS	1,210	1,470	4,460	1,730	1,440	3,170
Selenium	180	1,500	ND	1.6	0.7 J	ND	1.0 J	2
Silver	180	1,500	0.1 J	0.2 J	0.2 J	ND	0.4 J	0.3 J
Sodium	NS	NS	310	230	350	220	300	550
Thallium	NS	NS	3.8	0.8 J	0.7 J	ND	ND	2.4
Vanadium	NS	NS	12.5	22.2	28.6	23.0	23.9	21.8
Zinc	10,000	10,000	115	261	182	123	410	200

Notes:

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Table 9 - Summary of Metals Detected in Subsurface Soils

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB3-1-6	D-SB4-1-6	D-SB5-1-6	D-SB6-1-6	D-SB7-1-6	D-SB8-1-6
			8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/21/2017	8/22/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aluminum	NS	NS	10,600	21,000	9,950	9,160	17,600	9,680
Antimony	NS	NS	ND	ND	189	10.7	1.4 J	1.7 J
Arsenic	16	16	11.8	10.7	**17**	**19.1**	**18.4**	12.7
Barium	400	400	137	198	**1,530**	305	381	216
Beryllium	72	590	1.28	1.49	0.94	0.81	2.75	0.72
Cadmium	4.3	9.30	1.14	0.28 J	**26.20**	2.48	1.18	0.73
Calcium	NS	NS	82,600	76,300	54,900	83,200	93,900	47,200
Chromium (Total)	180	1,500	25.1	24.3	97.8	98.3	17.9	38.3
Cobalt	NS	NS	4.2 J	3.1 J	6.3	6.2	3.0 J	5.6 J
Copper	270	270	42.3	17.8	183	162	155	74.7
Iron	NS	NS	20,600	37,800	59,400	31,200	25,700	24,000
Lead	400	1,000	106	113	**3,400**	258	*452*	307
Magnesium	NS	NS	12,800	12,700	7,910	6,720	10,900	6,780
Manganese	2,000	10,000	667	*6,880*	783	*2,380*	1,960	955
Mercury	0.81	2.8	0.124	ND	ND	0.235	0.356	0.297
Nickel	310	310	12.7	8.5	24.7	16.8	12.4	16.6
Potassium	NS	NS	2,600	2,240	1,090	1,290	1,300	1,420
Selenium	180	1,500	1.9	4.1	3.1	3.2	3.6	1.5
Silver	180	1,500	0.4 J	ND	0.4 J	0.6 J	0.4 J	1.2 J
Sodium	NS	NS	290	970	1,310	450	640	400
Thallium	NS	NS	2.5	ND	ND	2.6	ND	ND
Vanadium	NS	NS	24.1	41.0	36.6	65.7	16.4	23.0
Zinc	10,000	10,000	226	37	1,270	603	179	261

Notes:

All concentrations are reported in parts per million (ppm or mg/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

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Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 9 - Summary of Metals Detected in Subsurface Soils

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB9-1-6	D-SB10-1-6	D-SB11-1-6	D-SB12-1-6	D-SB13-1-6	D-SB14-1-6
			8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017	8/22/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aluminum	NS	NS	6,250	7,560	13,000	6,490	9,890	7,630
Antimony	NS	NS	ND	ND	ND	ND	ND	ND
Arsenic	16	16	4.3	5.1	4.6	6	5	6.3
Barium	400	400	90.6	87.2	128	115	64.7	178
Beryllium	72	590	0.33	0.64	1.47	0.43	0.6	0.46
Cadmium	4.3	9.30	0.30 J	0.46 J	0.23 J	0.46 J	0.23 J	0.48 J
Calcium	NS	NS	43,700	100,000	67,800	33,600	91,000	44,000
Chromium (Total)	180	1,500	9.6	117	11.9	11.6	9.3	13.4
Cobalt	NS	NS	2.9 J	3.6 J	3.9 J	5.0 J	3.2 J	4.5 J
Copper	270	270	15.1	34.2	28.8	42.4	23.4	48
Iron	NS	NS	10,600	39,800	12,700	21,700	10,500	15,500
Lead	400	1,000	*447*	102	51.6	113	210	*687*
Magnesium	NS	NS	11,100	14,200	10,300	9,340	21,400	7,460
Manganese	2,000	10,000	285	*2,440*	1,800	272	311	265
Mercury	0.81	2.8	0.187	0.245	0.131	0.441	0.119	0.12
Nickel	310	310	7.2	17.7	12.3	12.4	8.3	12.6
Potassium	NS	NS	910	1,160	1,330	1,360	1,330	1,090
Selenium	180	1,500	ND	1.9	1.3	0.9 J	0.6 J	0.6 J
Silver	180	1,500	0.07 J	0.09 J	ND	0.1 J	ND	ND
Sodium	NS	NS	210	270	390	180	320	310
Thallium	NS	NS	ND	0.8 J	ND	ND	ND	ND
Vanadium	NS	NS	14.3	47.9	14.4	15.9	13.6	18.1
Zinc	10,000	10,000	110	143	98.7	118	77.1	219

Notes:

All concentrations are reported in parts per million (ppm or mg/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 9 - Summary of Metals Detected in Subsurface Soils

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB15-1-6	D-SB16-1-6	D-SB17-1-6	D-SB18-1-6	D-SB19-1-6	D-SB20-1-6
			8/22/2017	8/23/2017	8/23/2017	8/23/2017	8/23/2017	8/23/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aluminum	NS	NS	6,380	5,420	15,400	8,460	9,910	14,000
Antimony	NS	NS	ND	ND	ND	ND	46.8	ND
Arsenic	16	16	2.9	6.2	4.5	6.1	8.3	6.7
Barium	400	400	59	81.9	102	106	124	146
Beryllium	72	590	0.9	0.42	1.86	0.88	0.58	2.05
Cadmium	4.3	9.30	0.29 J	0.83	0.14 J	0.92	0.82	0.26 J
Calcium	NS	NS	91,700	47,200	100,000	91,600	54,000	104,000
Chromium (Total)	180	1,500	8.4	22.5	9.6	13.8	33.4	9.2
Cobalt	NS	NS	1.8 J	3.5 J	1.8 J	4.0 J	6.4	2.5 J
Copper	270	270	15.7	68.3	17.6	53.9	67.1	21.9
Iron	NS	NS	8,440	13,200	10,300	15,200	19,200	12,000
Lead	400	1,000	44	96.6	55.2	178	364	124
Magnesium	NS	NS	18,800	14,500	15,000	22,200	15,700	18,200
Manganese	2,000	10,000	495	424	1,300	499	766	1,010
Mercury	0.81	2.8	0.076	0.093	0.13	0.278	0.391	0.09
Nickel	310	310	6.1	10	5.6	11.7	18.6	6.8
Potassium	NS	NS	870	770	1,570	1,290	1,530	1,230
Selenium	180	1,500	0.7 J	0.7 J	1.2	0.9 J	1.0 J	0.8 J
Silver	180	1,500	ND	0.4 J	ND	0.1 J	0.1 J	ND
Sodium	NS	NS	330	260	960	340	180	560
Thallium	NS	NS	1.9	ND	1.3	1.6	ND	ND
Vanadium	NS	NS	13.3	11.5	13.9	14.6	23.2	10.9
Zinc	10,000	10,000	65.6	220	74.6	187	192	76

Notes:

All concentrations are reported in parts per million (ppm or mg/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Estimated value

Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 9 - Summary of Metals Detected in Subsurface Soils

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB21-1-6	D-SB22-1-6	D-SB23-1-6	D-SB24-1-6	D-SB25-1-6	D-SB26-1-6
			8/23/2017	8/23/2017	8/24/2017	8/24/2017	8/24/2017	8/24/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aluminum	NS	NS	6,620	7,150	7,810	4,150	3,400	8,170
Antimony	NS	NS	ND	1.4 J	ND	3.0 J	1.4 J	ND
Arsenic	16	16	5.4	7.9	5.1	7	4.5	9.2
Barium	400	400	57.3	60.8	62.1	38	26.3	133
Beryllium	72	590	0.38	0.64	0.59	0.25 J	0.21 J	0.61
Cadmium	4.3	9.30	0.59	*7.65*	0.65	**10.20**	*6.61*	2.04
Calcium	NS	NS	52,500	22,800	17,600	6,760	9,220	63,000
Chromium (Total)	180	1,500	24.4	54.3	26.9	68.9	62.1	19.8
Cobalt	NS	NS	5.3 J	2.4 J	2.1 J	2.2 J	2.0 J	5.9
Copper	270	270	20.3	65.1	29.3	80.4	62.2	49.2
Iron	NS	NS	19,100	33,000	18,000	30,900	24,100	29,000
Lead	400	1,000	46.8	*497*	83.3	*550*	314	321
Magnesium	NS	NS	19,600	4,330	3,530	890	2,080	8,560
Manganese	2,000	10,000	545	1,500	596	1,320	796	463
Mercury	0.81	2.8	0.152	0.147	0.045	0.281	0.088	*0.841*
Nickel	310	310	14.6	19	10.4	21.6	25	14.2
Potassium	NS	NS	1,300	560	980	300	290	1,220
Selenium	180	1,500	ND	1.7	0.77 J	1.7	0.80 J	0.95 J
Silver	180	1,500	0.1 J	1.8	0.1 J	1.9	1.2	1 J
Sodium	NS	NS	250	250	310	110	130	210
Thallium	NS	NS	ND	ND	ND	ND	ND	ND
Vanadium	NS	NS	19.4	14.8	13.7	13.0	10.2	20.8
Zinc	10,000	10,000	143	1,400	150	1,800	985	360

Notes:

All concentrations are reported in parts per million (ppm or mg/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

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Italicized = Concentration exceeds Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives

Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 9 - Summary of Metals Detected in Subsurface Soils

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB27-1-6	D-SB28-1-6	D-SB29-1-6	D-SB30-1-8	D-SB31-1-8	D-SB32-1-8
			8/24/2017	8/24/2017	8/24/2017	8/25/2017	8/25/2017	8/25/2017
			1-6 feet	1-6 feet	1-6 feet	1-8 feet	1-8 feet	1-8 feet
Aluminum	NS	NS	10,300	9,590	4,780	6,250	8,550	11,300
Antimony	NS	NS	ND	ND	ND	ND	2.2 J	7.1 J
Arsenic	16	16	5.5	7.6	3.2	**19.3**	15	**19.4**
Barium	400	400	83.5	131	34.9	302	222	**592**
Beryllium	72	590	1.44	0.87	0.23 J	0.86	1.21	0.77
Cadmium	4.3	9.30	3.37	0.64	0.30 J	0.33 J	1.80	**15.40**
Calcium	NS	NS	47,000	54,500	55,800	44,100	42,400	69,200
Chromium (Total)	180	1,500	31	14.1	7.6	13.6	38.7	*489*
Cobalt	NS	NS	3.8 J	5.1 J	3.8 J	4.3 J	4.1 J	6.7 J
Copper	270	270	54.5	57.3	17.6	99.2	153	**1,130**
Iron	NS	NS	22,200	22,800	10,200	28,300	21,400	38,400
Lead	400	1,000	182	220	57.3	*758*	*614*	*472*
Magnesium	NS	NS	9,290	9,040	20,500	6,420	5,900	5,240
Manganese	2,000	10,000	888	522	373	339	728	889
Mercury	0.81	2.8	0.011 J	0.21	0.187	0.745	0.173	0.369
Nickel	310	310	16.7	12.7	9.3	15.1	16.5	42.3
Potassium	NS	NS	950	1,220	910	580	910	1,680
Selenium	180	1,500	2	0.87 J	ND	1 J	2.1	2.5
Silver	180	1,500	0.7 J	0.2 J	ND	0.5 J	1.9	50.2
Sodium	NS	NS	380	270	180	450	520	890
Thallium	NS	NS	ND	ND	ND	ND	ND	3.0
Vanadium	NS	NS	13.4	18.7	13.5	15.3	15.1	27.4
Zinc	10,000	10,000	550	200	75.6	205	335	2,190

Notes:

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Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 9 - Summary of Metals Detected in Subsurface Soils

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth					
			D-SB33-1-8	D-SB34-1-8	D-SB35-1-8	D-SB36-1-8	D-SB37-1-8	D-SB38-1-6
			8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/29/2017
			1-8 feet	1-8 feet	1-8 feet	1-8 feet	1-8 feet	1-6 feet
Aluminum	NS	NS	7,020	5,410	6,750	5,030	7,100	10,500
Antimony	NS	NS	2.5 J	5.6 J	2 J	3.2 J	8.8	ND
Arsenic	16	16	**18.7**	15.8	**32.7**	**22.2**	**27.1**	6.7
Barium	400	400	**926**	158	230	288	225	94.4
Beryllium	72	590	0.64	0.82	0.91	0.7	0.7	0.97
Cadmium	4.3	9.30	1.50	0.86	**14.20**	2.29	1.61	0.5 J
Calcium	NS	NS	34,300	5,540	16,200	4,070	11,600	108,000
Chromium (Total)	180	1,500	*215*	16.3	55.9	40.4	101	14.6
Cobalt	NS	NS	5.5 J	4.4 J	5.4 J	6.6	7.9	4.1 J
Copper	270	270	193	46.7	180	**517**	**467**	37.2
Iron	NS	NS	17,600	19,600	30,100	32,900	24,400	15,200
Lead	400	1,000	**9,780**	296	186	*729*	**1,510**	60.5
Magnesium	NS	NS	4,130	630	2,280	620	4,010	18,300
Manganese	2,000	10,000	286	157	173	156	345	594
Mercury	0.81	2.8	0.556	0.103	0.243	0.268	0.122	0.214
Nickel	310	310	20.4	13.2	20.3	38.6	30.1	11.9
Potassium	NS	NS	700	480	680	360	490	1,460
Selenium	180	1,500	2.5	1.3	2.5	2.5	2.1	0.9 J
Silver	180	1,500	0.9 J	0.2 J	2.1	5.6	1 J	0.1 J
Sodium	NS	NS	420	310	370	380	210	530
Thallium	NS	NS	ND	ND	ND	ND	ND	2.5
Vanadium	NS	NS	17.5	20.5	24.6	26.9	40.2	17.8
Zinc	10,000	10,000	727	186	375	550	466	105

Notes:

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Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 9 - Summary of Metals Detected in Subsurface Soils

Metal	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth				
			D-SB39-1-6	D-SB40-1-6	D-SB41-1-6	D-SB42-1-6	D-SB43-1-6
			8/29/2017	8/29/2017	8/29/2017	8/29/2017	8/29/2017
			1-6 feet	1-6 feet	1-6 feet	1-6 feet	1-6 feet
Aluminum	NS	NS	8,420	9,150	4,620	7,650	4,090
Antimony	NS	NS	ND	ND	ND	ND	2.5 J
Arsenic	16	16	5.8	7.1	3	4.3	9.1
Barium	400	400	63	88.4	128	72.5	61.4
Beryllium	72	590	0.56	0.59	0.5	0.49	0.29 J
Cadmium	4.3	9.30	0.31 J	1.13	2.02	0.32 J	**11.30**
Calcium	NS	NS	101,000	12,900	157,000	72,500	18,400
Chromium (Total)	180	1,500	11.6	20.1	6.2	10.9	176
Cobalt	NS	NS	3.7 J	8.4	1.8 J	4.3 J	3.4 J
Copper	270	270	28.4	38.6	15.3	25	109
Iron	NS	NS	12,900	24,300	6,950	12,900	38,100
Lead	400	1,000	122	62.5	61.1	83	*543*
Magnesium	NS	NS	15,200	5,610	11,300	17,100	2,440
Manganese	2,000	10,000	465	353	252	383	1,780
Mercury	0.81	2.8	ND	0.115	0.17	0.239	0.246
Nickel	310	310	10.5	25.2	6	10.9	48
Potassium	NS	NS	1,000	970	780	1,450	410
Selenium	180	1,500	ND	0.7 J	0.5 J	0.6 J	2.1
Silver	180	1,500	ND	0.2 J	ND	0.1 J	1.6
Sodium	NS	NS	230	150	250	250	150
Thallium	NS	NS	2.7	ND	4.4	0.7 J	ND
Vanadium	NS	NS	15.4	18.6	13.2	23.5	17.6
Zinc	10,000	10,000	67.1	183	93.8	89.5	1,960

Notes:

All concentrations are reported in parts per million (ppm or mg/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

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Bold - Concentration exceeds Restricted Use (Track 2) Restricted-Residential and Commercial Soil Cleanup Objectives

Table 10 - Summary of Volatile Organic Compounds (VOCs) Detected in Subsurface Soils

	Part 375-6.8 (b) Restricted Use (Track 2) Restricted-Residential Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Commercial Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth						
			D-SB7-1-6	D-SB13-5-6	D-SB31-3.5-4.5	D-SB32-2-3	D-SB32-4-5	D-SB33-4.5-5.5	D-SB34-3-4
			8/21/2017	8/22/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017	8/25/2017
			5-6 feet	5-6 feet	3.5-4.5 feet	2-3 feet	4-5 feet	4.5-5.5 feet	3-4 feet
1,2,4-Trimethylbenzene	52,000	190,000	2.9 J	ND	3.7 J	5.2 J	10 J	4.5 J	14
1,3,5-Trimethylbenzene	52,000	190,000	0.96 J	ND	1.9 J	1.1 J	ND	0.99 J	6.1
1,4-Dichlorobenzene	13,000	130,000	1.9 J	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	100,000	500,000	16	ND	8.9	18	200	17	34
Acetone	100,000	500,000	59	ND	56	91	690	85	170
Benzene	4,800	44,000	0.82 J	ND	ND	0.71 J	ND	ND	0.97 J
Dichloromethane	NS	NS	ND	ND	1.7 J	ND	2.8 J	ND	ND
Ethylbenzene	41,000	390,000	ND	ND	ND	0.47 J	ND	ND	0.48 J
Tetrachloroethene (PCE)	19,000	150,000	ND	ND	44	7.4	20 J	6.5	1.9 J
Toluene	100,000	500,000	1.5 J	ND	ND	ND	ND	ND	ND
Vinyl Chloride	900	13,000	ND	ND	ND	ND	ND	ND	3.5 J
cis-1,2-Dichloroethene	100,000	500,000	ND	ND	3.6 J	ND	ND	ND	ND
m,p-Xylenes	NS	NS	ND	ND	ND	ND	ND	ND	1.8 J
n-Butylbenzene	NS	NS	ND	ND	ND	15	ND	1.3 J	5.7 J
n-Propylbenzene	100,000	500,000	ND	ND	ND	12	ND	ND	1.1 J
o-Xylene	NS	NS	ND	ND	0.8 J	0.8 J	ND	ND	2 J
sec-Butylbenzene	100,000	500,000	7.9	ND	4.7 J	35	38	1.6 J	3.7 J
tert-Butylbenzene	100,000	500,000	3 J	ND	7.4	5.9 J	9.6 J	4.6 J	0.78 J
Xylenes (mixed)	100,000	500,000	ND	ND	0.8 J	0.8 J	ND	ND	3.8 J
Total VOCs	NS	NS	103	ND	133	193	970	136	246

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR

ND = Compound not detected above method detection limit (see attached lab

NS = No Standard

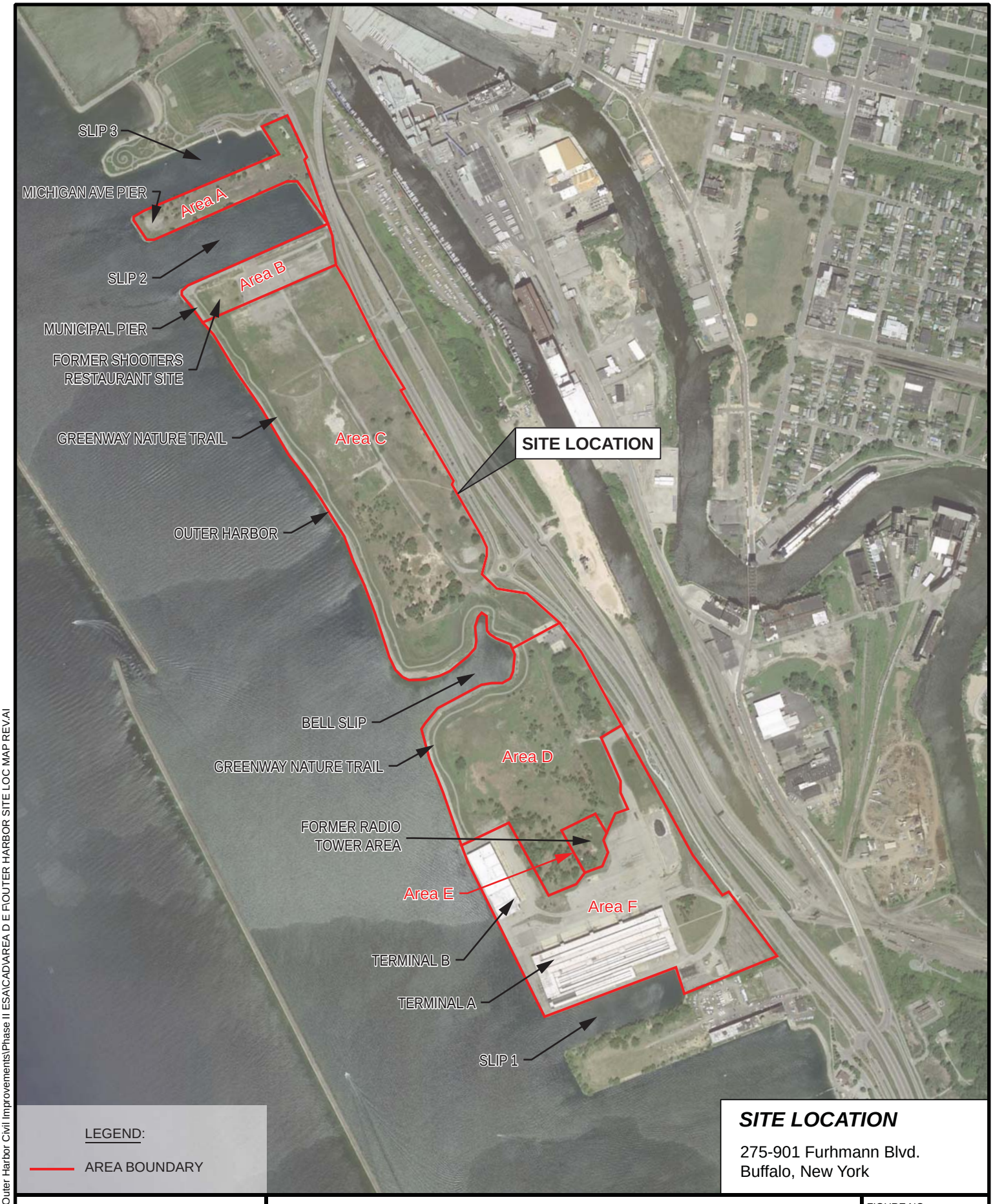
J = Estimated value

Table 11 - Summary of TO-15 Volatile Organic Compounds (VOCs) and Methane Detected in Soil Vapor

Analyte	Units	NYSDOH AGV	NYSDOH 2003 Upper Fence Limit (Outdoor)	USEPA BASE Data 90th Percentile (Outdoor)	HEI RIOPA 2005 95th Percentile Value (Outdoor)	Sample ID and Date Collected		
						SVP-1	SVP-2	SVP-3
						9/1/2017	9/1/2017	9/1/2017
Methane	ppmV	NC	NC	NC	NC	4,900	5.9	1.6
Dichlorodifluoromethane (Freon 12)	µg/m3	NC	10	8.1	NC	1.2064	2.1615	2.6642
Ethanol	µg/m3	NC	34	57	NC	**41.45**	ND	ND
Acetone	µg/m3	NC	30	43.7	19.6	***43.461***	14.004	ND
Trichlorofluoromethane (Freon 11)	µg/m3	NC	5.1	4.3	NC	ND	4.1114	0.45
Methylene Chloride	µg/m3	60	1.6	6.1	2.46	0.77675	ND	ND
Carbon Disulfide	µg/m3	NC	NC	3.7	NC	*12.926*	ND	*7.9121*
Methyl tert-Butyl Ether (MTBE)	µg/m3	NC	NC	6.2	22.1	3.408	ND	ND
2-Butanone (MEK)	µg/m3	NC	5.3	11.3	NC	**10.792**	ND	ND
cis-1,2-Dichloroethylene	µg/m3	NC	0.4	<1.8	NC	**1.6523**	ND	ND
Ethyl Acetate	µg/m3	NC	NC	1.5	NC	*4.3959*	ND	ND
Hexane	µg/m3	NC	2.2	6.4	NC	***28.661***	ND	ND
Chloroform	µg/m3	NC	0.5	0.6	0.76	ND	***64.536***	***32.258***
Benzene	µg/m3	NC	4.8	6.6	5.16	2.825	ND	ND
Cyclohexane	µg/m3	NC	0.9	NC	NC	**3.44**	ND	ND
1,2-Dichloropropane	µg/m3	NC	0.4	<1.6	NC	ND	ND	***65.76***
Trichloroethylene	µg/m3	5	0.4	1.3	0.79	**0.81931**	ND	ND
Heptane	µg/m3	NC	4.5	NC	NC	**7.38**	ND	ND
4-Methyl-2-pentanone (MIBK)	µg/m3	NC	NC	1.9	NC	*3.2478*	ND	ND
Toluene	µg/m3	NC	5.1	33.7	19.6	**13.023**	ND	ND
n-Octane	µg/m3	NC	0.7	1.6	NC	***5.14***	ND	ND
Tetrachloroethylene	µg/m3	100	0.7	6.5	3.17	***22.06***	**4.412**	***2.4128***
Ethylbenzene	µg/m3	NC	1	3.5	3.04	**3.3102**	ND	ND
m&p-Xylene	µg/m3	NC	1	12.8	10	***14.565***	ND	ND
Styrene	µg/m3	NC	0.5	1.3	1.29	***3.0741***	ND	ND
o-Xylene	µg/m3	NC	1.2	4.6	3.23	***7.0618***	ND	ND
n-Nonane	µg/m3	NC	2	2.8	NC	***5.77***	ND	ND
Cumene	µg/m3	NC	NC	NC	NC	3.9472	ND	ND
alpha-Pinene	µg/m3	NC	30	<6.2	1.9	***39***	ND	ND
n-Propylbenzene	µg/m3	NC	1.5	NC	NC	**4.3469**	ND	ND
4-Ethyltoluene	µg/m3	NC	NC	3	NC	*6.88*	ND	ND
1,3,5-Trimethylbenzene	µg/m3	NC	0.7	2.7	NC	***64.96***	**1.0493**	ND
1,2,4-Trimethylbenzene	µg/m3	NC	1.9	5.8	NC	***84.947***	0.80	ND
1,4-Dichlorobenzene	µg/m3	NC	0.5	1.2	NC	***9.1665***	***12.833***	***4.7666***
d-Limonene	µg/m3	NC	0.5	3.6	6.54	***373.34***	ND	ND
Naphthalene	µg/m3	NC	NC	4.9	NC	*9.5915*	ND	ND

Notes:
NC = No criteria
ND = Not detected
Bold = Concentration exceeds NYSDOH Fuel Oil 2003 Upper Fence Limit
Italicized = Concentration exceeds USEPA BASE Data 90th Percentile
Shading = Concentration exceeds HEI RIOPA 2005 95th Percentile

FIGURES



LEGEND:

AREA BOUNDARY

SITE LOCATION

275-901 Furhmann Blvd.
Buffalo, New York

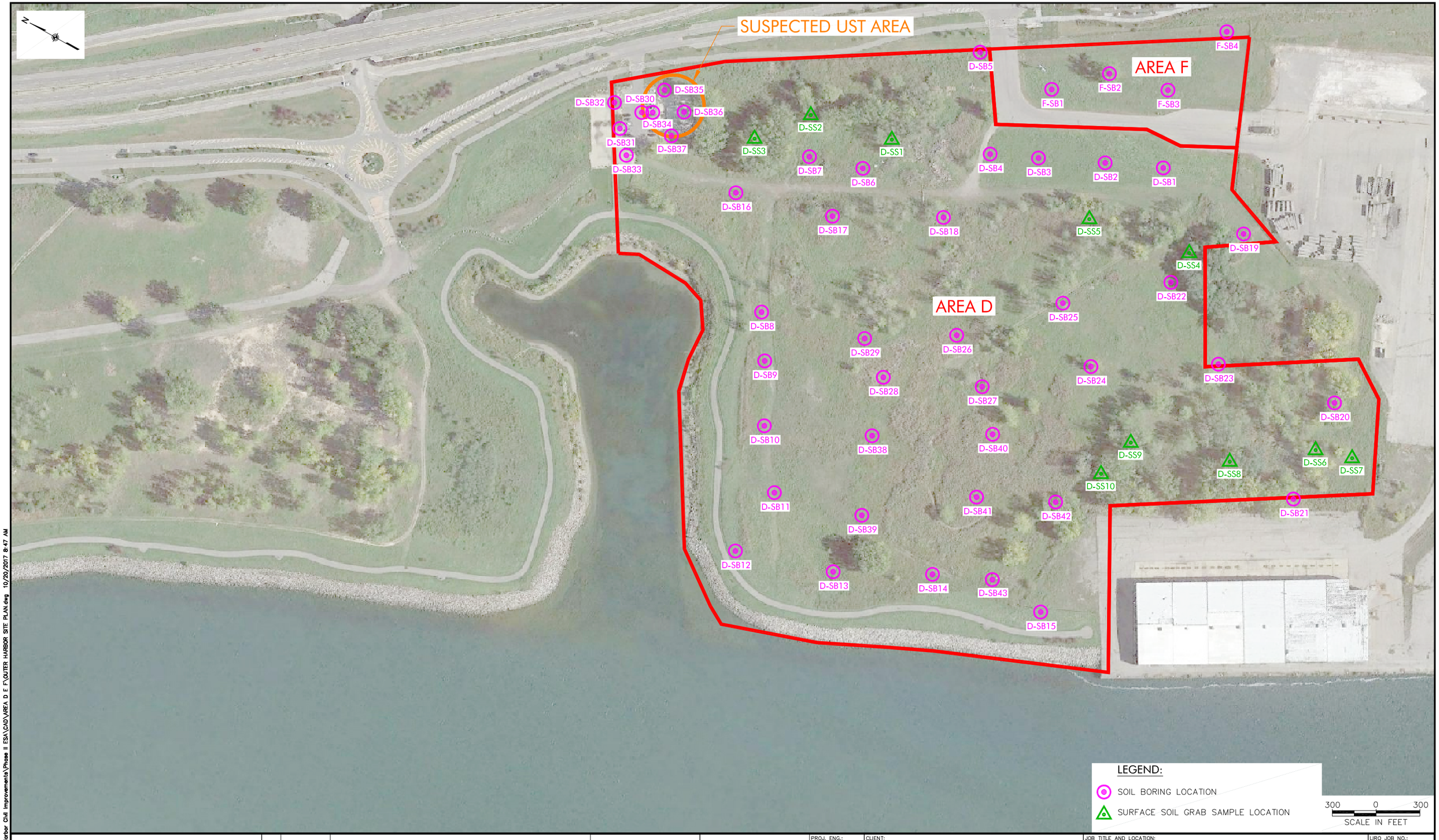
LiRo-Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

BUFFALO OUTER HARBOR CIVIL IMPROVEMENTS SITE LOCATION MAP

FIGURE NO.

1

J:\17-012-0132 ESD Outer Harbor Civil Improvements\Phase II ESA\CAD\AREA D E F\OUTER HARBOR SITE LOC MAP REV.AI



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WARNING

IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, OTHER THAN THOSE WHOSE SEAL APPEARS ON THIS DRAWING, TO ALTER IN ANY WAY AN ITEM ON THIS DRAWING. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NO.	DATE	DESCRIPTION

REVISIONS

LiRo Engineers, Inc.
690 Delaware Avenue
Buffalo, New York

PROJ. ENG.:	
DESIGNED BY:	
CHECKED BY:	
DRAWN BY:	A.M.K.

CLIENT: BUFFALO OUTER HARBOR CIVIL IMPROVEMENTS

DATE: OCTOBER 2017

SCALE: AS SHOWN

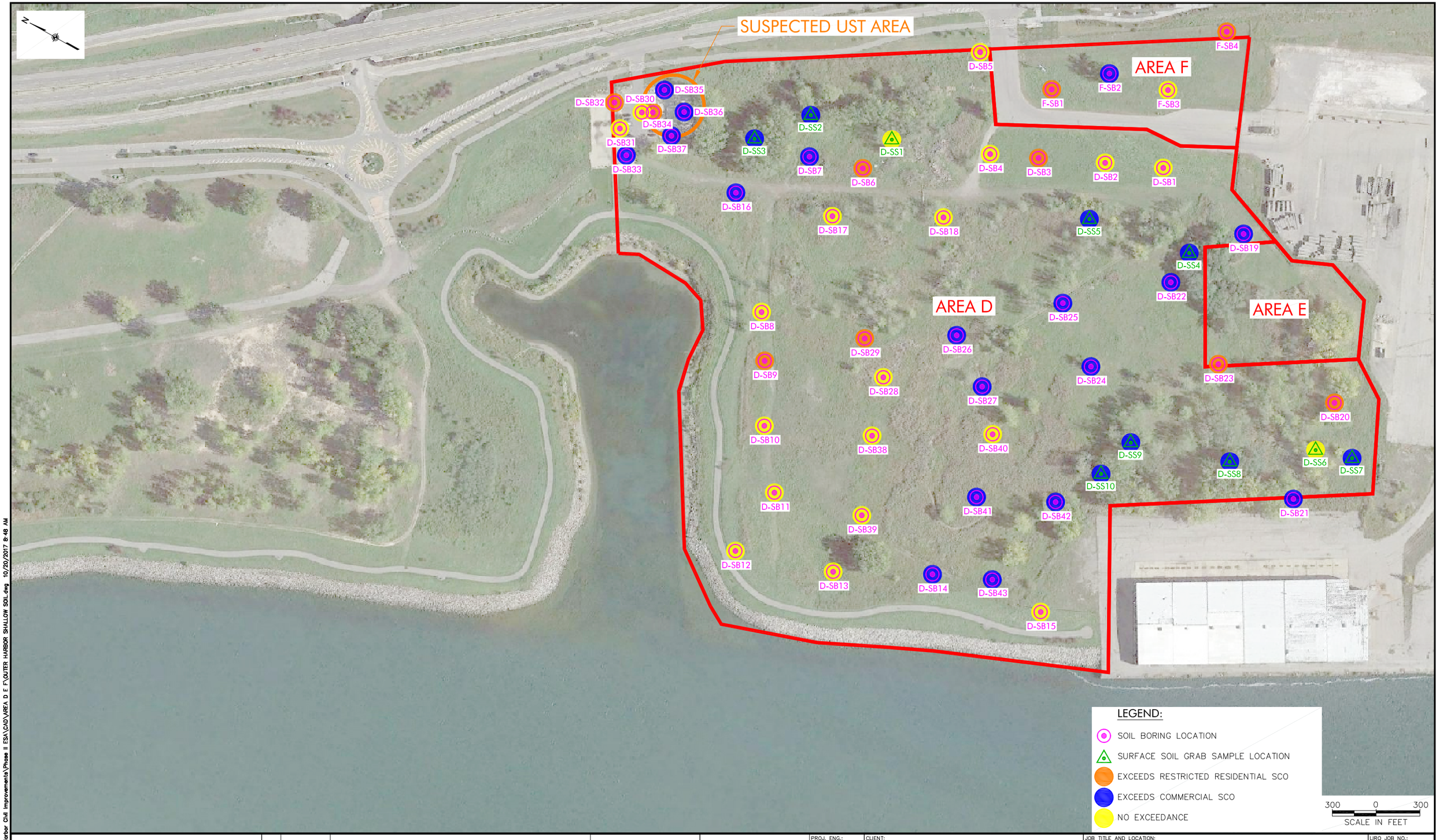
JOB TITLE AND LOCATION: BUFFALO OUTER HARBOR CIVIC IMPROVEMENTS

DRAWING TITLE: PHASE II ESI - AREA D SITE PLAN

LIRO JOB NO.: 17-012-0132

SHEET OF

FIGURE NO. 2



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WARNING

IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, OTHER THAN THOSE WHOSE SEAL APPEARS ON THIS DRAWING, TO ALTER IN ANY WAY AN ITEM ON THIS DRAWING. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NO.	DATE	DESCRIPTION

REVISIONS

LiRo Engineers, Inc.
690 Delaware Avenue
Buffalo, New York

PROJ. ENG.:	
DESIGNED BY:	
CHECKED BY:	
DRAWN BY:	A.M.K.

CLIENT: BUFFALO OUTER HARBOR CIVIL IMPROVEMENTS

DATE: SEPTEMBER 2017

SCALE: AS SHOWN

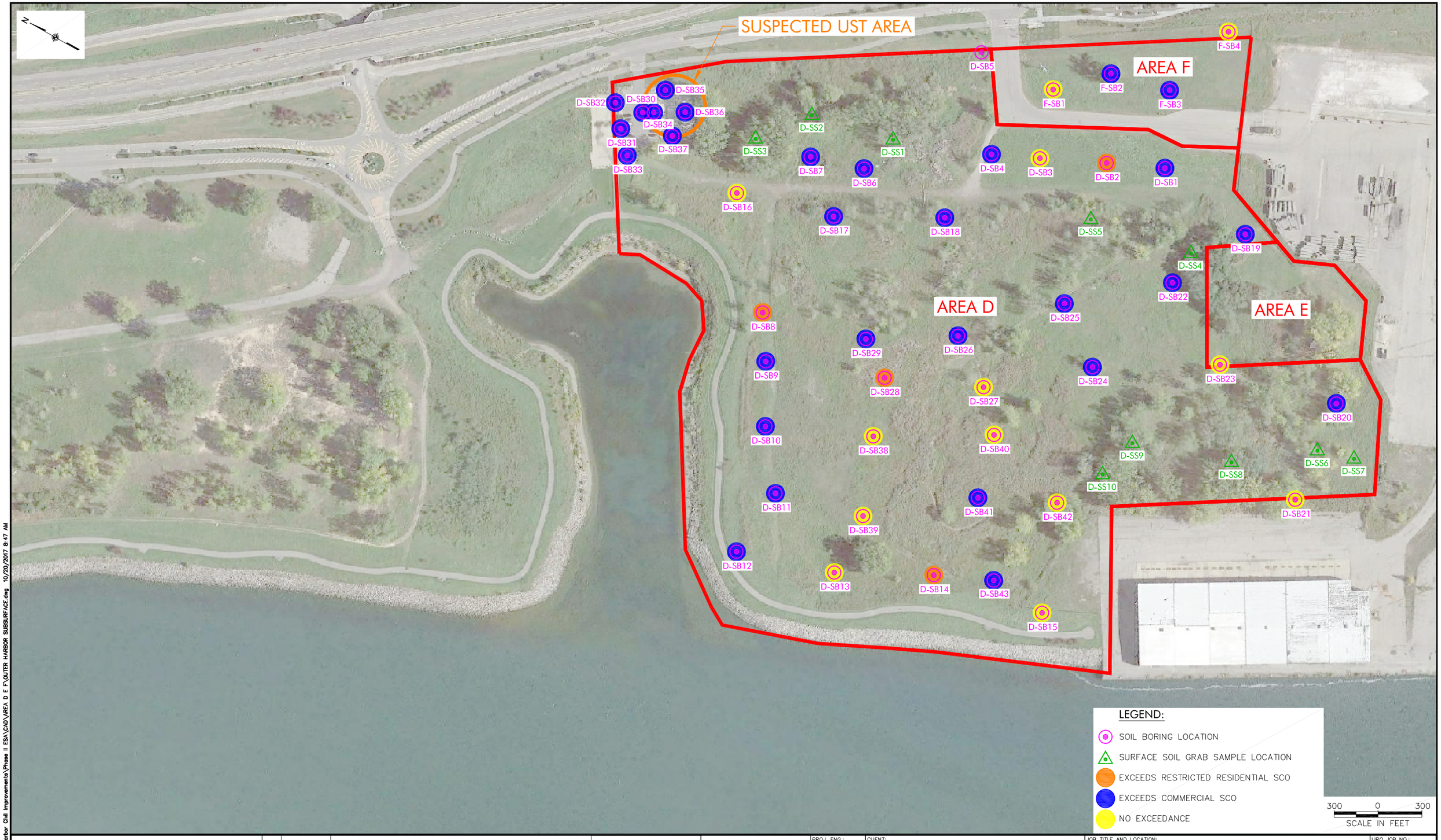
JOB TITLE AND LOCATION: BUFFALO OUTER HARBOR CIVIC IMPROVEMENTS

LIRO JOB NO.: 17-012-0132

SHEET OF

DRAWING TITLE: PHASE II ESI - AREA D
LOCATIONS WITH CHEMICALS EXCEEDING
PART 375 SOIL CLEANUP OBJECTIVES - SURFACE SOIL

FIGURE NO. 3



J:\17-012-0132 ESD Outer Harbor Civil Improvements\Phase II ESA\CAD\AREA D E F\OUTER HARBOR SUBSURFACE.dwg 10/20/2017 8:47 AM

WARNING

IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, OTHER THAN THOSE WHOSE SEAL APPEARS ON THIS DRAWING, TO ALTER IN ANY WAY AN ITEM ON THIS DRAWING. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NO.	DATE	DESCRIPTION
		REVISIONS

LiRo Engineers, Inc.
690 Delaware Avenue
Buffalo, New York

PROJ. ENG.:	
DESIGNED BY:	
CHECKED BY:	
DRAWN BY:	A.M.K.

CLIENT: BUFFALO OUTER HARBOR CIVIL IMPROVEMENTS

DATE: SEPTEMBER 2017

SCALE: AS SHOWN

JOB TITLE AND LOCATION: BUFFALO OUTER HARBOR CIVIC IMPROVEMENTS

LIRO JOB NO.: 17-012-0132

SHEET OF

DRAWING TITLE: PHASE II ESI - AREA D
LOCATIONS WITH CHEMICALS EXCEEDING
PART 375 SOIL CLEANUP OBJECTIVES - SUBSURFACE SOIL

FIGURE NO. 4

APPENDIX A

Soil Boring Logs

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-1**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 21, 2017**
DATE FINISHED:	**August 21, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

				CAS.	SAMPLER	TUBE
DATE	TIME	LEVEL	TYPE	TYPE	6620DT	
				DIA.	2"	
				WT.		
				FALL		

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										0.0 ppm
					80%					0.0 ppm
						brown	loose	0-6' sandy SILT, red brick, coal, concrete, slag	FILL	0.0 ppm
										0.0 ppm
5					95%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-1-0-1' @ 1110, D-SB-1-1-6' @ 1120

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-1

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-2**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 21, 2017**
DATE FINISHED:	**August 21, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

				CAS.	SAMPLER	TUBE
DATE	TIME	LEVEL	TYPE	TYPE	6620DT	
				DIA.	2"	
				WT.		
				FALL		

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					90%	brown	loose	0-6' sandy SILT, red brick, coal, pulverized concrete, gravel, slag	FILL	5.1 ppm
										3.9 ppm
										2.1 ppm
										1.8 ppm
5					95%					1.1 ppm
										0.9 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-2-0-1' @ 1130, D-SB-2-1-6' @ 1145

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-2

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-3**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 21, 2017**
DATE FINISHED:	**August 21, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					90%	brown, black	loose	0-6" sandy LOAM; 6"-5' sandy SILT with some clay, red brick, slag, glass; 5-5.75' medium SAND; 5.75-6' clayey SILT, glass	FILL	2.1 ppm
										1.0 ppm
										0.7 ppm
										1.3 ppm
5					95%					0.9 ppm
										0.7 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-3-0-1' @ 1300, D-SB-3-1-6' @ 1310

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-3

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-4**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 21, 2017**
DATE FINISHED:	**August 21, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					85%	brown	somewhat loose	0-3.5' sandy SILT, crushed stone, coal, red brick; 3.5-6' medium SAND, red brick, coal	FILL	0.0 ppm
										2.0 ppm
										1.8 ppm
										2.2 ppm
5					100%					0.9 ppm
										1.1 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-4-0-1' @ 1315, D-SB-4-1-6' @ 1325

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-4

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-5**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 21, 2017**
DATE FINISHED:	**August 21, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	TUBE
				DIA.		6620DT	
						2"	
				WT.			
				FALL			

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS
1					65%	brown, grey	somewhat loose	0-6' sandy GRAVEL, crushed concrete, red brick (moist around 3')	FILL	1.0 ppm
										1.7 ppm
										0.7 ppm
										1.7 ppm
5					95%					1.8 ppm
										0.6 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-5-0-1' @ 1355, D-SB-5-1-6' @ 1405

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-5

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-6**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 21, 2017**
DATE FINISHED:	**August 21, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	TUBE
				DIA.		6620DT	
				WT.		2"	
				FALL			

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					75%	brown, tan	somewhat loose	0-3" sandy LOAM; 3"-2' medium-fine SAND; 2-6' silty CLAY with gravel, coal, pottery, asphalt	FILL	5.1 ppm
										4.9 ppm
										5.8 ppm
										5.2 ppm
5					75%					4.8 ppm
										3.9 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-6-0-1' @ 1500, D-SB-6-1-6' @ 1510

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-6

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-7**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 21, 2017**
DATE FINISHED:	**August 21, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	TUBE
				DIA.		6620DT	
				WT.		2"	
				FALL			

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					75%	tan, grey, black	somewhat loose	0-1.5' sandy LOAM; 1.5-4' gravelly SAND, crushed stone, red brick, asphalt/coal; 4-6' sandy GRAVEL, (petroleum odor)	FILL	5.1 ppm
										4.9 ppm
										5.8 ppm
										5.2 ppm
5					75%					4.8 ppm
										3.9 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-7-0-1' @ 1535, D-SB-7-1-6' @ 1545, D-SB-7-5-6' @ 1545 (VOC)

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-7

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-8**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 22, 2017**
DATE FINISHED:	**August 22, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

CAS.	SAMPLER	TUBE
TYPE	6620DT	
DIA.	2"	
WT.		
FALL		

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					65%	tan-brown	somewhat firm	0-6' silty CLAY, medium sand lenses, crushed stone, red brick, concrete	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					100%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-8-0-1' @ 0930, D-SB-8-1-6' @ 0940

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-8

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-9**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 22, 2017**
DATE FINISHED:	**August 22, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										0.0 ppm
										0.0 ppm
					65%					0.0 ppm
						tan	somewhat firm	0-6' silty CLAY, asphalt, red brick, concrete, sand lenses	FILL	0.0 ppm
5										0.0 ppm
					100%					0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-9-0-1' @ 1000, D-SB-9-1-6' @ 1010

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-9

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-10**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 22, 2017**
DATE FINISHED:	**August 22, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										0.0 ppm
										0.0 ppm
					75%					0.0 ppm
						brown	somewhat firm	0-6' sandy SILT with some clay, sandy gravel lenses, concrete, metal, red brick, slag	FILL	0.0 ppm
5										0.0 ppm
					100%					0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-10-0-1' @ 1025, D-SB-10-1-6' @ 1035

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-10

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-11**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 22, 2017**
DATE FINISHED:	**August 22, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					80%	brown	somewhat firm	0-6' sandy SILT with clay, sandy gravel lenses, slag, asphalt, red brick, concrete	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					95%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-11-0-1' @ 1055, D-SB-11-1-6' @ 1100

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-11

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-12**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 22, 2017**
DATE FINISHED:	**August 22, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										0.0 ppm
										0.0 ppm
					90%	brown, dark brown	somewhat loose	0-6" silty LOAM; 6"-2' fine-medium SAND (black fabric demarcation barrier @ 2'); 2-5' clayey SILT with gravel, glass; 5-6' sandy SILT, red brick, slag, coal fragments, glass	FILL	0.0 ppm
										0.0 ppm
5					100%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-12-0-1' @ 1130, D-SB-12-1-6' @ 1135

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-12

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-13**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 22, 2017**
DATE FINISHED:	**August 22, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					60%	brown	firm	0-6' silty CLAY, slag, concrete, crushed stone, red brick	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					85%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-13-0-1' @ 1335, D-SB-13-1-6' @ 1340, D-SB-13-5-6' @ 1330 (VOC)

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-13

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-14**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 22, 2017**
DATE FINISHED:	**August 22, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS
1					75%	brown	firm	0-6' clayey SILT, slag, concrete, crushed stone, red brick, medium sand lenses	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					75%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-14-0-1' @ 1410, D-SB-14-1-6' @ 1420

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-14

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-15**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 22, 2017**
DATE FINISHED:	**August 22, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

				CAS.	SAMPLER	TUBE
DATE	TIME	LEVEL	TYPE	TYPE	6620DT	
				DIA.	2"	
				WT.		
				FALL		

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										0.0 ppm
										0.0 ppm
					85%					0.0 ppm
						brown, tan	somewhat firm	0-6" silty LOAM; 6"-2' sandy SILT (black fabric demarcation barrier @ 2'); 2-6' sandy SILT, red brick, concrete	FILL	0.0 ppm
5										0.0 ppm
					100%					0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-15-0-1' @ 1445, D-SB-15-1-6' @ 1500

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-15

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-16**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 23, 2017**
DATE FINISHED:	**August 23, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

				CAS.	SAMPLER	TUBE
DATE	TIME	LEVEL	TYPE	TYPE	6620DT	
				DIA.	2"	
				WT.		
				FALL		

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										0.0 ppm
										0.0 ppm
					75%					0.0 ppm
						brown, tan	somewhat firm	0-6" silty LOAM; 6"-2' sandy SILT (black fabric demarcation barrier @ 2'); 2-6' sandy SILT, red brick, concrete	FILL	0.0 ppm
5										0.0 ppm
					100%					0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-16-0-1' @ 0920, D-SB-16-1-6' @ 0925

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-16

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-17**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 23, 2017**
DATE FINISHED:	**August 23, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					95%	brown-black	somewhat loose	0-6' sandy SILT, red brick, concrete, sand lenses, metal	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					90%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-17-0-1' @ 1000, D-SB-17-1-6' @ 1010

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-17

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-18**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 23, 2017**
DATE FINISHED:	**August 23, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					75%	dark brown	somewhat loose	0-6' sandy SILT with gravel, red brick, concrete, slag	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					85%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-18-0-1' @ 1030, D-SB-18-1-6' @ 1045

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-18

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-19**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 23, 2017**
DATE FINISHED:	**August 23, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					90%	dark brown	somewhat loose	0-2' silty SAND; 2-6' silty SAND, red brick, concrete, slag	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					80%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-19-0-1' @ 1125, D-SB-19-1-6' @ 1130

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-19

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-20**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 23, 2017**
DATE FINISHED:	**August 23, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					65%	brown	somewhat loose	0-6' sandy GRAVEL, red brick, glass, asphalt	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					100%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-20-0-1' @ 1225, D-SB-20-1-6' @ 1230

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-20

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-21**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 23, 2017**
DATE FINISHED:	**August 23, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	TUBE
				DIA.		6620DT	
				WT.		2"	
				FALL			

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					75%	brown	somewhat loose	0-2' sandy LOAM with silt, red brick; 2-4' medium-fine SAND with some silt, red brick; 4-6' medium-fine SAND with some silt	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					100%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-21-0-1' @ 1440, D-SB-21-1-6' @ 1445

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-21

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-22**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 23, 2017**
DATE FINISHED:	**August 23, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	TUBE
				DIA.		6620DT	
				WT.		2"	
				FALL			

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					85%	brown, dark brown/reddish brown	loose	0-1' silty LOAM; 1-4' fine SAND, red brick; 4-6' fine SAND, plastic, concrete	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					65%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-22-0-1' @ 1515, D-SB-22-1-6' @ 1520

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-22

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-23**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 24, 2017**
DATE FINISHED:	**August 24, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					70%	dark brown, black	somewhat loose	0-6' sandy SILT, slag, concrete, red/yellow brick	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					85%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-23-0-1' @ 0925, D-SB-23-1-6' @ 0930

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-23

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-24**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 24, 2017**
DATE FINISHED:	**August 24, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					80%	dark brown, black	somewhat loose	0-6' fine sandy SILT, slag, red brick	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					100%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-24-0-1' @ 1005, D-SB-24-1-6' @ 1010

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-24

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-25**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 24, 2017**
DATE FINISHED:	**August 24, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

				CAS.	SAMPLER	TUBE
DATE	TIME	LEVEL	TYPE	TYPE	6620DT	
				DIA.	2"	
				WT.		
				FALL		

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										0.0 ppm
					65%	dark brown, black	somewhat loose	0-6" sandy LOAM; 6"-6' fine sandy SILT, slag, red brick, glass	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
5					100%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-25-0-1' @ 1040, D-SB-25-1-6' @ 1045

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-25

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-26**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 24, 2017**
DATE FINISHED:	**August 24, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

CAS.	SAMPLER	TUBE
TYPE	6620DT	
DIA.	2"	
WT.		
FALL		

DATE	TIME	LEVEL	TYPE

DEPTH FEET	STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					55%	brown, black, grey, black	somewhat loose	0-6" sandy LOAM; 6"-1' sandy SILT; 1-4' concrete with rebar; 4-6' fine sandy SILT	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					90%					1.1 ppm
										1.8 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-26-0-1' @ 1125, D-SB-26-1-6' @ 1130

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-26

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-27**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 24, 2017**
DATE FINISHED:	**August 24, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										0.0 ppm
										0.0 ppm
					50%	dark brown, black, brown	somewhat loose	0-6" silty LOAM; 6"-1' sandy SILT; 1-2.5' concrete; 2.5-6' silty CLAY with sand, red/yellow brick, slag	FILL	0.0 ppm
										0.8 ppm
5										0.1 ppm
					85%					0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-27-0-1' @ 1310, D-SB-27-1-6' @ 1315

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-27

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-28**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 24, 2017**
DATE FINISHED:	**August 24, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS
1					65%	tan	somewhat firm	0-3" silty LOAM; 3"-6' silty CLAY with sand, concrete, slag, metal, plastic	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					75%					1.7 ppm
										5.6 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-28-0-1' @ 1420, D-SB-28-1-6' @ 1425

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-28

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-29**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 24, 2017**
DATE FINISHED:	**August 24, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					85%	dark brown, brown	somewhat firm	0-1' sandy LOAM; 1-6' silty CLAY, crushed stone, red/yellow brick, asphalt, slag, fine sand lenses	FILL	0.0 ppm
										0.1 ppm
										2.9 ppm
										5.3 ppm
5					100%					2.1 ppm
										2.9 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-29-0-1' @ 1515, D-SB-29-1-6' @ 1520

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-29

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-30**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 25, 2017**
DATE FINISHED:	**August 25, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					50%	grey/brown	loose	0-8' sandy GRAVEL, asphalt, slag, concrete, red/yellow brick, wood last 1'	FILL	0.9 ppm
										1.9 ppm
										0.9 ppm
										2.9 ppm
5					55%					1.5 ppm
										1.7 ppm
										2.9 ppm
										4.4 ppm
								End of boring @ 8' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-30-0-1' @ 0935, D-SB-30-1-8' @ 0940

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-30

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-31**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 25, 2017**
DATE FINISHED:	**August 25, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS
1					80%	brown	somewhat loose	0-8' silty SAND with gravel, coarse black sand lenses, asphalt, slag, red/yellow brick, wood	FILL	0.8 ppm
										18.9 ppm
										19.4 ppm
										39.4 ppm
5					50%					36.0 ppm
										NA
										22.7 ppm
										NA
								End of boring @ 8' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-31-0-1' @ 1000, D-SB-31-1-8' @ 1005, D-SB-31-3.5-4.5' @ 1000 (VOC)
Petroleum odor

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-31

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-32**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 25, 2017**
DATE FINISHED:	**August 25, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS
1					75%	black	somewhat loose	0-8' coarse sandy GRAVEL, crushed stone, asphalt, slag	FILL	0.8 ppm
										1.7 ppm
										27.5 ppm
										0.8 ppm
5					85%					73.4 ppm
										61.0 ppm
										54.4 ppm
										43.2 ppm
								End of boring @ 8' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-32-0-1' @ 1040, D-SB-32-1-8' @ 1045, D-SB-32-2-3' @ 1035 (VOC), D-SB-32-4-5' @1040 (VOC)
Petroleum odor

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-32

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-33**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 25, 2017**
DATE FINISHED:	**August 25, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										0.4 ppm
										4.5 ppm
					65%					28.3 ppm
										8.6 ppm
5						black	somewhat loose	0-8' sandy GRAVEL, crushed stone, asphalt, slag, fine black sand lenses	FILL	51.4 ppm
										55.7 ppm
					90%					6.8 ppm
										5.8 ppm
								End of boring @ 8' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-33-0-1' @ 1125, D-SB-33-1-8' @ 1130, D-SB-33-4.5-5.5' @ 1120 (VOC)

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-33

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-34**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 25, 2017**
DATE FINISHED:	**August 25, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					75%	black	somewhat loose	0-8' sandy GRAVEL, concrete, slag, fine black sand lenses, glass	FILL	0.4 ppm
										0.3 ppm
										3.2 ppm
										10.2 ppm
5					85%					3.7 ppm
										9.0 ppm
										0.7 ppm
										0.4 ppm
								End of boring @ 8' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-34-0-1' @ 1150, D-SB-34-1-8' @ 1155, D-SB-34-3-4' @ 1145 (VOC)

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-34

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-35**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 25, 2017**
DATE FINISHED:	**August 25, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					90%	dark brown, black	somewhat loose	0-2' sandy SILT; 2-8' sandy GRAVEL, slag, red/yellow brick, wood, ash	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					100%					0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
								End of boring @ 8' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-35-0-1' @ 1330, D-SB-35-1-8' @ 1335

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-35

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-36**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 25, 2017**
DATE FINISHED:	**August 25, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										0.0 ppm
										0.0 ppm
					75%					0.0 ppm
										0.0 ppm
5						brown, black	somewhat loose	0-2.5' fine sandy SILT; 2.5-8' coarse gravelly SAND, ash, slag, red/yellow brick, glass, coal	FILL	0.2 ppm
										0.0 ppm
					90%					0.0 ppm
										0.0 ppm
								End of boring @ 8' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-36-0-1' @ 1405, D-SB-36-1-8' @ 1410

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-36

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-37**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 25, 2017**
DATE FINISHED:	**August 25, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										5.4 ppm
										0.5 ppm
					65%					0.0 ppm
										0.0 ppm
5						dark brown, black	somewhat loose	0-1' fine sandy SILT; 1-8' coarse sandy GRAVEL, ash, slag, red/yellow brick, glass, coal	FILL	0.0 ppm
										0.0 ppm
					85%					0.0 ppm
										0.0 ppm
								End of boring @ 8' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-37-0-1' @ 1440, D-SB-37-1-8' @ 1445

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-37

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-38**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 29, 2017**
DATE FINISHED:	**August 29, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										5.0 ppm
										9.0 ppm
					75%					1.1 ppm
						tan, tan, brown	somewhat firm	0-1' clayey SILT with sand, crushed stone; 1-3' silty CLAY with gravel; 3-6' silty SAND, asphalt, crushed stone, glass, slag	FILL	3.1 ppm
5										6.1 ppm
					75%					2.1 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-38-0-1' @ 0855, D-SB-38-1-6' @ 0900

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-38

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-39**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 29, 2017**
DATE FINISHED:	**August 29, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					65%	tan	loose	0-6' sandy SILT, red/yellow brick, asphalt, slag, crushed stone	FILL	1.2 ppm
										1.8 ppm
										0.8 ppm
										1.1 ppm
5					80%					0.5 ppm
										1.6 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-39-0-1' @ 0930, D-SB-39-1-6' @ 0935

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-39

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-40**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 29, 2017**
DATE FINISHED:	**August 29, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					75%	black, tan	loose, somehwhat firm	0-3.5' sandy SILT with gravel, slag, coal; 3.5-6' silty CLAY	FILL	3.3 ppm
										1.5 ppm
										0.8 ppm
										0.3 ppm
5					90%					0.8 ppm
										1.3 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-40-0-1' @ 1000, D-SB-40-1-6' @ 1005

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-40

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-41**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 29, 2017**
DATE FINISHED:	**August 29, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS
1										0.5 ppm
										0.2 ppm
					60%	brown	somewhat loose	0-6' sandy SILT with gravel, glass, asphalt, coal, slag	FILL	0.2 ppm
										0.4 ppm
5										0.3 ppm
					70%					0.1 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-41-0-1' @ 1025, D-SB-41-1-6' @ 1030

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-41

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-42**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 29, 2017**
DATE FINISHED:	**August 29, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS
1					65%	brown	somewhat loose	0-6' sandy SILT with gravel, trace of clay, red/yellow brick, glass, asphalt, coal, slag	FILL	0.1 ppm
										0.5 ppm
										0.3 ppm
										0.8 ppm
5					90%					0.8 ppm
										0.4 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-42-0-1' @ 1100, D-SB-42-1-6' @ 1105

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-42

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**D-SB-43**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA D**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 29, 2017**
DATE FINISHED:	**August 29, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	TUBE
				DIA.		6620DT	
						2"	
				WT.			
				FALL			

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					75%	tannish brown, black	somewhat loose	0-1' sandy SILT; 1-6' very fine SAND/SILT, red/yellow brick, slag,	FILL	0.1 ppm
										0.5 ppm
										0.3 ppm
										0.8 ppm
5					85%					0.8 ppm
										0.4 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: D-SB-43-0-1' @ 1145, D-SB-43-1-6' @ 1150

PROJECT NO.: 15-029-1054
BORING NO.: D-SB-43

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**F-SB-1**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA F**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 21, 2017**
DATE FINISHED:	**August 21, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1						brown	somewhat loose	0-1' grass/sandy LOAM	FILL	0.0 ppm
					75%	light brown	somewhat loose	1-6' silty SAND, brick, crushed stone, pulverized concrete		0.0 ppm
										0.0 ppm
										0.0 ppm
5					100%					0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: F-SB-1-0-1' @ 0900, F-SB-1-1-6' @ 0910

PROJECT NO.: 15-029-1054
BORING NO.: F-SB-1

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**F-SB-2**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA F**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 21, 2017**
DATE FINISHED:	**August 21, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					80%	brown	somewhat loose	0-6" grass/sandy LOAM; 6"-4' silty SAND, red brick, crushed stone, coal fragments, crushed concrete	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
										0.0 ppm
5					90%	orangey brown	firm	4-6' clayey SILT with sand	CL	0.0 ppm
										0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: F-SB-2-0-1' @ 0925, F-SB-2-1-6' @ 0930

PROJECT NO.: 15-029-1054
BORING NO.: F-SB-2

LiRo Engineers, Inc.

TEST BORING LOG

BORING NO:	**F-SB-3**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA F**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 21, 2017**
DATE FINISHED:	**August 21, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

				CAS.	SAMPLER	TUBE
DATE	TIME	LEVEL	TYPE	TYPE	6620DT	
				DIA.	2"	
				WT.		
				FALL		

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1										0.0 ppm
					80%	brown, tan, brown	somewhat loose	0-2" grass/sandy LOAM; 2"-1.5' crushed stone; 1.5-3.5' silty SAND; 3.5-4' crushed stone; 4-5' crushed asphalt, coal	FILL	0.0 ppm
										0.0 ppm
										0.0 ppm
5					90%					0.0 ppm
						brown, grey	firm	5-5.5' sandy SILT with gravel, moist; 5.5-6' silty CLAY	CL	0.0 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: F-SB-3-0-1' @ 0950, F-SB-3-1-6' @ 1000

PROJECT NO.: 15-029-1054
BORING NO.: F-SB-3

LiRo Engineers, Inc.

TEST BORING LOG

PROJECT NAME: Buffalo Outer Harbor
CLIENT: Towbridge Wolf Michaels Landscape Architects, LLF
BORING CONTRACTOR: SJB/Empire Geo Serv. Inc.
GROUNDWATER: Not Encountered

	CAS.	SAMPLER	TUBE
TYPE		6620DT	
DIA.		2"	
WT.			
FALL			

DATE	TIME	LEVEL	TYPE

BORING NO:	**F-SB-4**
SHEET:	**1 of 1**
JOB NO.:	**17-012-0132**
LOCATION:	**AREA F**
GROUND ELEVATION:	**N/A**
DATE STARTED:	**August 21, 2017**
DATE FINISHED:	**August 21, 2017**
DRILLER:	**SJB/Empire Geo Serv. Inc.**
GEOLOGIST:	**Kris Charney**
REVIEWED BY:	

DEPTH FEET	SAMPLE STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS
1					95%	black	loose	0-6' gravelly SAND (possibly foundry sand), slag, coal	FILL	1500 ppm
										234 ppm
										221 ppm
										173 ppm
5					75%					109 ppm
										55.1 ppm
								End of boring @ 6' bgs		
10										
15										
20										
25										
30										
35										

COMMENTS: Samples collected: F-SB-4-0-1' (plus VOC) @ 1020, F-SB-4-1-6' @ 1030

PROJECT NO.: 15-029-1054
BORING NO.: F-SB-4

APPENDIX B

Analytical Laboratory Reports

(Included on Attached CD)