SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT

for

1921 ATLANTIC AVENUE
Brooklyn, New York
NYSDEC BCP Site No. C224279

Prepared For:

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c/o Dabar Development Partners
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CERTIFICATION

I, Steven A. Ciambruschini, certify that I am currently a Qualified Environmental Professional as defined in 6 New York Codes, Rules, and Regulations Part 375 and that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).

Steven A. Ciambruschini, P.G.

1.0 INTRODUCTION

On behalf of DTF Atlantic, LLC (the Volunteer), Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan), has prepared this Supplemental Remedial Investigation (SRI) Report for the ±0.69-acre property located at 1921 Atlantic Avenue (Figure 1), Brooklyn, New York (hereinafter the "Site"). DTF Atlantic, LLC is participating in the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) as a Volunteer as defined in ECL 27-1405 (1)(b) and as identified in the executed Brownfield Cleanup Agreement dated 26 November 2018. The Site is identified in the BCP as Site No. C224279.

The SRI was conducted in accordance with the 9 July 2019 SRI Work Plan (SRIWP) prepared by Langan and approved by the NYSDEC on 8 August 2019. The investigation was completed to further characterize and delineate contamination at the Site based on the DEC's comments provided in a 10 December 2018 letter from Daniel McNally of the Division of Environmental Remediation. This investigation supplements the findings of the 2018 Remedial Investigation completed by P.W. Grosser Consulting Inc. and was conducted in accordance with the process and requirements identified in the NYSDEC Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation (May 2010) and the New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York, with updates" (October 2006).

2.0 SITE DESCRIPTION

2.1 Physical Setting

The Site is located in the Bedford-Stuyvesant neighborhood of Brooklyn, New York and is identified as Block 1557, Lots 1-4, 23, 26, 28, and 31 through 38 on the NYC Brooklyn Borough Tax Map. The Site has an area of approximately 30,164-square feet (±0.69-acres) and is primarily vacant land. The Site cover consists primarily of vegetation and exposed soil, with the exception of an asphalt paved area in the northeastern portion of the Site. A two-story residential building on Lot 2 and a three-story residential building on Lot 38 and associated one-story private garages, were recently demolished in support of the proposed redevelopment of the Site. The Site is currently zoned for manufacturing and residential use (M1-1/R7D) and is within the Atlantic Avenue Special Mixed-Use District (MX-10). A Site Location Map is provided as Figure 1.

2.2 Site Stratigraphy and Hydrogeology

According to a Site survey prepared by Surveying Co., LLP dated 30 June 2017, the Site slopes gently downward from the southeast (elevation el +83.5-feet) to the northwest (elevation el +75.5-feet). Site elevation ranges from between approximately 75.5-feet and 80.5-feet above sea level along the northern property boundary, between approximately 75.5-feet and 79.9-feet above sea level along the western property boundary, between approximately 79.9-feet and 83.5-feet along the southern property boundary, and from between 80.5-feet and 83.5-feet above sea level along the eastern property boundary. All elevations are North American Vertical Datum of 1988 (NAVD 88).

The "Surficial Geologic Map of New York" by the New York State Museum State Geological Survey indicates that the surficial geology at the Site consists of till, which is a relatively impermeable layer comprised of poorly sorted clay, silt, sand, gravel, and boulders. According to the 1994 Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, New York, and Parts of Bergen and Hudson Counties, New Jersey by Charles A. Baskerville, bedrock underlying the Site is part of the Hartland Formation, which consists of interbedded units of schist.

Based on findings of this supplemental remedial investigation and previous environmental investigations, the Site stratigraphy consists of a historic fill layer extending as deep as 9 feet below grade and underlain by a layer of sand with varying amounts of silt and gravel. Soil borings during this investigation were advanced to typical depth of 20- to 22-feet below ground surface with a maximum boring depth of 80-feet. Bedrock was not encountered in any of the soil borings advanced. Borings logs are provided in Appendix B and subsurface profiles are provided in Figures 2A and 2B.

Langan installed geotechnical borings at a nearby site to depths of up to 102-feet below sidewalk grade, corresponding to approximate elevation el +3.5-feet NAVD 88. Bedrock was not encountered in any of the geotechnical borings and is expected to be encountered at the subject Site at depths greater than 80-feet below current Site grades.

Groundwater was encountered in monitoring wells at depths ranging from 70.45 to 71.83 feet below ground surface during this investigation. Groundwater observations are consistent with those observed during the June 2018 Remedial Investigation by P.W. Grosser. Although Site topography gently slopes downward to the northwest, the groundwater flow direction was determined to be to the east-southeast based on measurements collected by P.W. Grosser in February 2018 and by Langan in March 2020. A potentiometric surface map is provided as Figure 3.

Groundwater in this part of New York City is not used as a potable (drinking) water source. The potable water supply is provided to the Site by the City of New York and is derived from surface impoundments in the Croton, Catskill, and Delaware watersheds.

2.3 Surrounding Property Land Use

The Site is bound by two- and three-story residential buildings to the north, Bancroft Place followed by a two-story auto repair facility and parking lots at street level to the east, Atlantic Avenue and the Long Island Rail Road (LIRR) followed by two one-story mixed-use commercial and office buildings to the south, and by Prescott Place followed by a vacant lot at street level and a one-story auto repair facility to the west. An adjacent property and surrounding land use map is provided as Figure 4.

The general area surrounding the Site consists of mixed-use residential/commercial buildings and automobile repair facilities. Public infrastructure (storm drains, sewers, and underground utility lines) exists within the streets surrounding the Site. The nearest sensitive receptor is Shirley Chisholm Day Care Center Inc., located approximately 345-feet south of the Site across Atlantic Avenue and the LIRR tracks. Sensitive receptors, as defined in DER-10, located within a half-mile of the Site include those listed below:

Number	Name (Approximate distance from Site)	Address
1	PS -28 The Warren (approximately 0.05-miles north of the Site)	1001 Herkimer Street, Brooklyn, NY 11233
2	Bishop Sexton Head Start (approximately 0.10-miles northwest of the Site)	933 Herkimer Street, Brooklyn, NY 11233
3	PS 040 George W Carver (approximately 0.17-miles north of the Site)	265 Ralph Avenue, Brooklyn, NY 11233
4	IS 271 John M Coleman (approximately 0.20-miles east-northeast of the Site)	1137 Herkimer Street, Brooklyn, NY 11233
5	PS 012 (approximately 0.25-miles south of the Site)	430 Howard Avenue, Brooklyn, NY 11233
6	The Family and Life Center (approximately 0.25-miles south of the Site)	411 Howard Avenue, Brooklyn, NY 11233
7	PS 178 St. Clair Mckelway (approximately 0.25-miles southeast of the Site)	2163 Dean Street, Brooklyn, NY 11233
8	Brevoort Children's Center (approximately 0.25-miles northwest of the Site)	250 Ralph Avenue, Brooklyn, NY 11233
9	BCS Atlantic Avenue Early Learning Center (approximately 0.25-miles west of the Site)	1825 Atlantic Avenue, Brooklyn, NY 11233
10	PS 021 Crispus Attucks (approximately 0.33-miles northwest of the Site)	180 Chauncey Street, Brooklyn, NY 11233
11	Shirley Chisholm Child Care Center Site 5 Advent Center (approximately 0.36-miles northeast of the Site)	265 Sumpter Street, Brooklyn, NY 11233
12	PS 137 Rachel Jean Mitchell (approximately 0.36-miles north-northeast of the Site)	121 Saratoga Avenue, Brooklyn, NY 11233
13	IS 055 Ocean Hill Brownsville (approximately 0.40-miles southeast of the Site)	2021 Bergen Street, Brooklyn, NY 11233
14	PS 191 Paul Robeson (approximately 0.40-miles south-southwest of the Site)	1600 Park Place, Brooklyn, NY 11233
15	PS 335 Granville T Woods (approximately 0.41-miles southwest of the Site)	130 Rochester Avenue, Brooklyn, NY 11213
16	Shirley Chisholm Child Care Center Site 4 Somers (approximately 0.43-miles northeast of the Site)	33 Somers Street, Brooklyn, NY 11233

2.4 Historical Site Usage

The Site was historically occupied by residential dwellings from prior to 1888 to 1934 and by mixed-use commercial and residential buildings between 1934 and 2005. In 1934, the Site is listed in the city directory abstract report (provided in the April 2017 Phase I Environmental Site Assessment prepared by P.W. Grosser) as having an oil and gasoline service station occupying Lot 37. Lot 37 was historically occupied by Ben VI Service Station and Lot 38 was historically operated by CYS Auto Body Shop. The Site has been vacant since 2006 with the exception of the residential buildings identified above. Lot 1 (located on Prescott Place between Lots 2 and 38) has a gated entrance along Prescott Place.

3.0 PROPOSED REDEVELOPMENT PLAN

The Site is proposed to be developed with a 100% affordable housing residential building. The proposed use of the ground floor is as a grocery store, community facility containing housing assistance organization offices, an art gallery, welfare services, and an aquaponics farm. A parking garage containing 44 spaces will also be developed in the basement level. Remediation of the Site will be completed in accordance with the Remedial Action Workplan (RAWP).

4.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

The following environmental assessment and investigation reports have been completed for the Site:

- Phase I Environmental Site Assessment (Block 1557, Lots 3, 4, 23, 26, 28, and 31 through 37), dated April 2017, prepared by P.W. Grosser Consulting Inc. on behalf of NYCOER;
- Phase I Environmental Site Assessment (Block 1557, Lots 1, 2, and 38), dated November 2017, prepared by P.W. Grosser Consulting Inc. on behalf of DTF Atlantic, LLC;
- Phase II Environmental Site Assessment (Block 1557, Lots 1, 2, and 38), dated March 2018, prepared by P.W. Grosser Consulting, Inc. on behalf of DTF Atlantic, LLC; and,

- Remedial Investigation Report (Block 1557, Lots 1 through 4, 23, 26, 28, and 31 through 38), dated June 2018, prepared by P.W. Grosser Consulting, Inc. on behalf of NYCOER and DTF Atlantic, LLC c/o Dabar Development Partners.

Summaries of environmental findings of these reports are provided below. A summary of the laboratory analytical results collected as part of the previous investigations are provided in the Tables provided in Appendix H. Sample locations are provided in Figure 5.

Phase I ESA (Block 1557, Lots 3, 4, 23, 26, 28, and 31 through 37)

The 2017 Phase I ESA was prepared on behalf of NYCOER and included all of the parcels currently owned by NYCHPD. Areas of Concern (AOCs) identified in the Phase I ESA were assessed in the June 2018 Remedial Investigation Report (RIR). The Phase I ESA identified areas of waste dumping on portions of Lots 32, 33, 35, and 36 and vehicles in various stages of disrepair and debris piles containing tires, construction debris, containerized automotive fluids and unspecified solid waste were identified.

Phase I ESA (Block 1557, Lots 1, 2, and 38)

The P.W. Grosser Phase I ESA included the three privately owned parcels and identified the presence of an abandoned fill port in the Prescott Place sidewalk adjacent to the west of Lot 2 (21 Prescott Place). The Lot 1 (23 Prescott Place) parcel was observed to be vacant land and contained areas of waste dumping associated with auto repair. The Lot 38 portion of the Site (1911 Atlantic Avenue) was identified as a gasoline service station in 1934 based on review of the City Directory Report. This parcel was also identified on historical Sanborn Maps as having a gasoline underground storage tank (UST) of unspecified capacity within an auto garage between 1951 and 1978. Potential subsurface impacts associated with any undocumented prior release from the UST and historic usage of this parcel as a potential gasoline service station/auto repair facility was identified as a recognized environmental condition (REC).

The adjacent site to the south across Atlantic Avenue was historically occupied by the Gold Seal commercial laundry between 1932 and 1980. The Phase I ESA identified the former commercial laundry (listed in the NYSDEC Site Remediation Database as NYSDEC BCP Site No. C224162 – DCA 1 Apartments) as a potential off-Site source of groundwater and soil vapor impacts to the subject property.

Phase II Environmental Site Assessment (Lots 1, 2 and 38)

Based on the findings of the Phase I ESAs prepared for the privately owned lots discussed above (Lots 1, 2, and 38), P.W. Grosser completed a Phase II Environmental Site Assessment in February 2018. The Phase II included completion of a geophysical survey to identify the potential USTs on Lots 2 and 38, completion of six soil borings to depths ranging from 6- to 20-feet below existing grades, collection of twelve soil samples for laboratory analysis, installation of two soil vapor sampling points in Lot 38 (to a depth of approximately 5-feet below grade), and collection of two soil vapor samples for laboratory analysis. Copies of the boring logs completed as part of this investigation are provided in Appendix H.

The geophysical survey identified potential USTs consisting of an approximately 3-foot by 6-foot metallic subsurface anomaly below the Prescott Place sidewalk adjacent to Lot 2 and an approximately 7-foot by 9-foot subsurface metallic anomaly in the garage on Lot 38. Soil borings advanced in the vicinity of the subsurface anomalies identified historic fill to depths of up to 6-feet below grade. No evidence of petroleum impacts in soil (i.e. odor, staining, and elevated volatile organic compounds (VOCs) as measured with a photoionization detector were identified. Groundwater was not encountered in any of the soil borings completed as part of the Phase II investigation and groundwater samples were not collected for laboratory analysis.

VOCs, polychlorinated biphenyls (PCBs), and herbicides were not detected at concentrations exceeding the NYSDEC Unrestricted Use Soil Cleanup Objectives (SCOs) in any of the soil samples collected. Semi-volatile organic compounds (SVOCs), consistent in concentration and distribution with the presence of contaminated historic fill, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene were detected in two soil samples collected from 0- to 2-feet below grade. These SVOCs were detected at concentrations exceeding NYSDEC Restricted Use SCOs (RUSCOs) for Restricted Residential use. The metals trivalent chromium, mercury, copper, lead, and zinc were detected exceeding the NYSDEC Unrestricted Use SCOs in all six soil borings at depths of up to 20-feet below grade.

Soil vapor samples also revealed concentrations of benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX) at concentrations up to 300 micrograms per cubic meter (µg/m3), tetrachloroethene (PCE) at a concentration of 0.31 µg/m3, and carbon tetrachloride at a concentration of 0.44 µg/m3.

Based on the findings of the Phase II, including the detection of geophysical anomalies consistent with potential USTs, identification of a UST on historical Sanborn Maps on Lot 38, and detection of BTEX in soil vapor on Lot 38, P.W. Grosser concluded that a historical release likely occurred from the UST below Lot 38. According to the March 2018 Phase II ESA, the potential release from the UST below Lot 38 (1911 Atlantic Avenue and 31 Prescott Place) was not reported to NYSDEC and a spill case was not assigned. The address 20 Prescott Place, located adjacent to the west of the subject property, is listed in the NYSDEC Spills database as "Vacant Commercial Land – Phase II" which was reported on 10 August 2018 and assigned Spill No. 1805096 by NYSDEC. It is unclear if this spill case is associated with the Site and was inaccurately reported to NYSDEC. Spill No. 1805096 has not yet been administratively closed by NYSDEC. If this spill is determined to be associated with this Site, then the spill will be closed during the planned Site remediation.

Remedial Investigation Report (Block 1557, Lots 1 through 4, 23, 26, 28, and 31 through 38)

Based on the findings of the previous environmental investigations discussed above, a Remedial Investigation was completed by P.W. Grosser on behalf of NYCOER and DTF Atlantic, LLC c/o Dabar Development Partners to satisfy the NYC OER E-Designation Program requirements and to evaluate the potential for inclusion of the Site into the NYSDEC BCP. A total of 21 soil borings, four groundwater monitoring wells, and eight soil vapor sampling points were installed during the investigation and a minimum of one soil boring was installed on each of the fifteen lots comprising the Site. A total of 39 soil samples, four groundwater samples, and eight soil vapor samples were collected and submitted for laboratory analysis. Copies of the boring logs completed as part of this investigation are provided in Appendix H.

Acetone was detected exceeding the NYSDEC Unrestricted Use SCO in one soil sample in the northeast portion of the Site (Lot 23) from the 0- to 2-foot depth interval. No other VOCs were detected in soil at concentrations exceeding the NYSDEC Unrestricted Use SCOs or RUSCOs.

SVOCs commonly associated with contaminated historic fill material including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene and pyrene were detected in soil samples collected from between 0- to 2-feet bgs at concentrations exceeding NYSDEC RUSCOs for Restricted Residential use. Benzo(a)pyrene and benzo(b)fluoranthene were detected in 13 and 14 soil samples,

respectively, and were evenly distributed throughout the Site. Benzo(a)anthracene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene were detected in one soil sample collected from the 6- to 8-foot depth interval in the north-central portion of the Site at concentrations exceeding the NYSDEC RUSCOs for Restricted Residential use.

The metals barium, lead, cadmium and mercury were detected in shallow (0- to 2-feet bgs) soil samples at concentrations exceeding NYSDEC RUSCOs for Restricted Residential use. Of these metals, barium and lead were detected in 10 and 12 soil samples, respectively, and were evenly distributed throughout the Site in the shallow depth interval. Mercury and manganese were detected in one sample collected from 6- to 8-feet bgs, and nickel was detected in one sample collected from 12- to 14-feet bgs exceeding the NYSDEC RUSCOs for Restricted Residential Use.

Arsenic, cadmium, copper, trivalent chromium, total chromium, lead, mercury, manganese, and zinc were detected in soil samples collected from the shallow (0- to 2-foot), intermediate (4- to 6-foot, 5- to 7-foot, and 6- to 8-foot), and deep (12- to 14-foot) depth intervals at concentrations exceeding the NYSDEC Unrestricted Use SCOs. Additionally, hexavalent chromium was detected in one soil sample collected from the 5- to 7-foot depth interval exceeding the NYSDEC Unrestricted Use SCOs.

The pesticides alpha-chlordane, gamma-chlordane, and total chlordane were detected from the 0- to 2-foot depth interval in one soil sample collected from the southeast portion of the Site, and the pesticide dieldrin was detected from the 6- to 8-foot depth interval in one soil sample collected from the northeast portion of the Site at concentrations exceeding the NYSDEC RUSCOs for Restricted Residential Use. Pesticides detected at concentrations exceeding the NYSDEC Unrestricted Use SCOs were detected in shallow (0- to 2-foot) soil samples for p,p'-DDE, p,p'-DDT, p,p'-DDD, dieldrin, alpha-chlordane, total chlordane, gamma-chlordane, and aldrin. Additionally, exceedances of the NYSDEC Unrestricted Use SCOs were reported from the 6- to 8-foot depth interval for p,p'-DDD in one sample, and for p,p'-DDE, and p,p'-DDT in one sample.

PCBs were detected in the shallow 0- to 2-foot depth interval at concentrations exceeding the NYSDEC RUSCOs for Restricted Residential Use for aroclor-1254 and total aroclor in one sample at the central portion of the Site. Additionally, exceedances of the NYSDEC Unrestricted Use SCOs were reported for samples collected from the 0- to 2-foot depth interval for aroclor-1254, aroclor-1260, and total aroclor.

Soil sample analytical results exceeding the NYSDEC Unrestricted Use SCOs for SVOCs and metals were detected throughout the Site. Lead was detected on all 15 parcels of the Site exceeding the NYSDEC RUSCOs for Restricted Residential use and exceeding the NYSDEC RUSCOs for Industrial use in one sample collected from Lot 37, which is adjacent to the east of the residential building on Lot 38.

Groundwater sample analytical results did not identify VOCs, SVOCs, pesticides, herbicides, or PCBs at concentrations above laboratory detection limits, with the exception of trace concentrations of chloroform, detected at concentrations below the NYSDEC Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (herein collectively referenced as "NYSDEC SGVs"). Dissolved concentrations of the metals sodium and manganese were detected in groundwater at concentrations exceeding the SGVs, but were not attributed to the presence of historic fill or potential impacts from historical Site use.

Soil vapor sample analytical results detected petroleum-related VOCs (BTEX) and the chlorinated VOCs PCE, trichloroethene (TCE), methylene chloride, and carbon tetrachloride at concentrations below the New York State Department of Health (NYSDOH) soil vapor intrusion guidance levels which would require monitoring or mitigation. The soil vapor samples were collected from soil vapor sampling points installed at approximately 5-feet below sidewalk grade and no indoor air or ambient air samples were collected concurrently during the soil vapor sampling event. As such, the soil vapor analytical results cannot be directly compared to the NYSDOH vapor intrusion guidance matrices.

5.0 SUMMARY OF AREAS OF CONCERN

Based on Site observations, the Site development history, and the findings of the previous environmental reports, AOCs were identified and investigated during the previous environmental investigations and are described in detail below. AOC locations are provided on Figure 5.

AOC 1: Gasoline Underground Storage Tanks

According to Sanborn Maps a gasoline tank was present in the southwestern portion of the Site on Lot 38 between 1951 and 1965. The geophysical survey completed during the 2018 RI identified the presence of an approximately 7-foot by 9-foot metallic anomaly consistent with the presence of an UST. Contaminants of concern typically

associated with gasoline USTs include petroleum-related VOCs which were identified in the RIR as existing in soil vapor.

Historical soil vapor analytical results indicate that impacts may be present from the gasoline UST. Analytical results include detections of chlorinated VOCs, although detections were below the NYSDOH guidance values that would require monitoring or mitigation; elevated concentrations of BTEX were also identified. Based on the nature and concentration of compounds observed in the soil vapor samples, a significant soil vapor threat to potential on-Site or off-Site receptors does not exist. The detected impacts in the surficial soil, including Unrestricted Use SCOs and RUSCOs exceedances for SVOCs, pesticides, PCBs, and metals, may also be associated with the presence of historic fill. Groundwater was not evaluated in the vicinity of the gasoline underground storage tank as part of the RI. As a soil sample could not be collected directly beneath the identified anomaly (former UST), petroleum impacts may be encountered during tank removal.

AOC 2: Fuel Oil Underground Storage Tank

A fuel oil tank fill port was observed in the sidewalk adjacent to the building on Lot 2 during the 2017 Phase I ESA. A geophysical survey completed during the 2018 RI confirmed the presence of an approximately 4-foot by 6-foot metallic anomaly consistent with a UST. Contaminants of concern associated with fuel oil USTs include VOCs and SVOCs.

Historical analytical results did not identify petroleum impacts in the area of the anomaly indicative of a release from the UST; however, a soil sample could not be collected directly beneath the former UST.

AOC 3: Dumping and Debris Piles

Extensive dumping of vehicles in varying stages of disrepair and debris piles consisting of tires, construction debris, various containers of automotive fluids, and miscellaneous solid waste were observed on Lots 1, 32, 33, 35, and 36 during previous Site inspections. AOC-3 consists of several debris piles which are identified as AOC-3A, AOC-3B, and AOC-3C. AOC-3A is located on Lot 1 and is approximately 16-feet by 90-feet; AOC-3B is located on Lots 32 and 33 and is approximately 22-feet by 22-feet; and AOC-3C is located on Lots 35 and 36 and is approximately 15-feet by 15-feet.

Soil analytical data from the 2018 RI, including exceedances of SVOCs, PCBs, pesticides, and metals above Unrestricted Use SCOs and/or RUSCOs, confirmed the presence of surficial impacts, which may have resulted from the presence of the observed debris. The detected impacts in soil may also be associated with the presence of contaminated historic fill. Groundwater, which was encountered approximately 70-feet bgs, was evaluated in the relative vicinity of the debris piles. Dissolved metals were detected in groundwater at concentrations exceeding the SGVs; however, due to the depth of groundwater, these detections are not attributed to the presence of the debris piles and are likely attributable to naturally occurring background concentrations.

AOC 4: Historic Fill

Material from unknown sources was used as backfill during various phases of the Site development history. Historical soil sample analytical results exceeding the Unrestricted Use SCOs and RUSCOs for SVOCs, pesticides, PCBs, and metals were detected throughout the Site in shallow (0 to 2 feet bgs) and intermediate (4 to 6 feet, 5 to 7 feet, and 6 to 8 feet) samples. The historic fill layer was visually observed up to approximately 9-feet bgs at the Site and predominantly consisted of brown silty sand with concrete, brick, and construction debris.

6.0 SUPPLEMENTAL REMEDIAL INVESTIGATION

The SRI was completed to supplement findings and further investigate the impacts identified in the June 2018 RI and address the requirements for additional investigation and reporting provided in a 10 December 2018 letter from Daniel McNally of the NYSDEC Division of Environmental Remediation. These requirements were subsequently addressed in the 9 July 2019 SRIWP prepared by Langan and approved by the NYSDEC on 8 August 2019.

The objectives of the SRI included:

- Determining if a source area in soil or groundwater exists;
- Confirming the assumed groundwater flow direction;
- Characterizing the nature and vertical and lateral extents of the impacts in soil and groundwater;

- Based on the groundwater flow direction and groundwater analytical results, determining if groundwater impacts are confined within the Site boundaries or have the potential to migrate off-Site; and,
- Determining if a vapor intrusion condition exists that would require mitigation.

AOC 2 was not evaluated as part of this SRI based on comments received from the NYSDEC in their 10 December 2018 letter. Characterization of the demolition debris stockpiles associated with AOC 3 was included as part of the SRIWP; however, this scope was not completed as the stockpiles associated with automobile repair activities were removed from the Site prior to the transfer of ownership (which occurred following the completion of the 2018 RIR) and the remaining soil/vegetation stockpiles were spread across the surface of the site during Site demolition activities. This condition was reported to the NYSDEC and the characterization of the remaining stockpile materials will be addressed by completion of waste characterization sampling prior to Site remediation and soil excavation activities. Additionally, NYSDEC did not request further evaluation of AOC 2 and is thus not included in this SRI.

The scope of work for the SRI consisted of:

- A limited ground-penetrating radar (GPR) survey within the vicinity of soil boring locations, in the areas of the two potential USTs, and in limited areas across the Site to investigate the location of subsurface utilities and drainage systems;
- Advancement of six soil borings (LSB-1 through LSB-6) and collection of 13 soil samples (including two duplicate samples) for VOC, SVOC, pesticides, herbicides, PCBs, TAL metals, 1,4-dioxane, and PFAS analysis;
- Installation of two groundwater monitoring wells (LMW-1 and LMW-2) and collection of six groundwater samples (including one duplicate sample) from the two newly installed monitoring wells and the three previously installed monitoring wells for VOC, SVOC, pesticides, herbicides, PCBs, total and dissolved TAL metals, 1,4-dioxane, and PFAS analysis; and,
- Installation of eight soil vapor sampling points (LSV-1 through LSV-8) and collection of nine soil vapor samples (including one duplicate sample) for VOC analysis.

The results of the geophysical survey are discussed in Section 6.1. Soil, groundwater, and soil vapor sampling procedures are discussed in Sections 6.2, 6.3, and 6.4, respectively. Quality assurance procedures implemented during this investigation and data validation (Data Usability Summary Reports [DUSRs]) that were completed are discussed in Section 6.5 and results of soil, groundwater, and soil vapor sampling are discussed in Section 6.6. The locations of all soil, groundwater, and soil vapor samples collected during this investigation are shown on Figure 5. A summary of the laboratory analytical data provided for this investigation are summarized in Tables 2A through 4 and are shown on Figures 6 through 8. All samples were analyzed by a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory. Daily Reports of work performed are provided in Appendix G.

6.1 Geophysical Survey Investigation

A limited geophysical survey was completed on 16 March 2020 by Hager-Richter Geoscience, Inc. of Fords, New Jersey using electromagnetic surveying equipment (i.e., the Radiodetection RD 7000 series precision utility location [PUL] instrument) and ground penetrating radar (i.e., the Geophysical Survey Systems, Inc. UtilityScan HS system). The purpose of the geophysical survey was to investigate areas of potential USTs as well as provide utility clearance for the investigation. A copy of the geophysical investigation report is provided in Appendix A.

The geophysical survey identified the presence of linear reflections typical of subsurface utilities or segments of subsurface utilities. Subsurface metallic anomalies consistent with the presence of USTs were not identified within the geophysical survey area during this investigation, including in the areas of AOC 1 and AOC 2 where USTs were previously identified. The suspected gasoline UST associated with AOC 1 was identified in previous investigations beneath the former on-Site building. As building demolition has recently occurred and the elevation in this area was raised to maintain Site grades, this UST is likely located deeper than the effective depth of penetration of the GPR signal, which is about 3 to 4 feet below ground surface. A large anomaly was detected west of the LSVV-6 location; however due to the depth of the anomaly and the limitations of the GPR signal, this could not be confirmed as a UST. The UST associated with AOC 2 was also identified in previous investigations, although was not identified during this SRI.

6.2 Soil Investigation

As requested in Comment 3 of the 10 December 2018 DEC comment letter, additional soil borings were installed to development depth at the northeastern portion of the Site, southeastern portion of the Site, and southwestern portion of the Site. These borings were installed to assess AOC 4 and supplement the historical Site wide soil assessment previously performed.

Six soil borings (LSB-1 through LSB-6) were completed between 16 and 18 March 2020 by AARCO Environmental Services Corp. of Lindenhurst, New York (AARCO). Soil borings were completed to a depths corresponding to the two-foot interval beyond the proposed development excavation depth. Soil boring LMW-1 was also installed on 16 March 2020 for the construction of a groundwater monitoring well. A sampling plan identifying the location, depth and sampling rationale for the completed borings is provided in Table 1 and boring locations are shown on Figures 5 and 6. Subsurface profiles are provided in Figures 2A and 2B.

6.2.1 Soil Boring Investigation Methodology

Borings were completed by using a GeoProbe®8140LC Sonic track mounted drill rig (LSB-3 through LSB-6) and GeoProbe®7822DT track-mounted direct push drill rig (LSB-1 and LSB-2). Soil borings LSB-1 through LSB-4 and LSB-6 were completed to approximately 20-feet bgs and soil boring LSB-5 was completed to approximately 22-feet bgs according to development depths. A soil boring was also logged for the installation of LMW-1, which was completed to 80-feet bgs using the GeoProbe®8140LC Sonic track mounted drill rig. Monitoring well MW-001, previously installed by P.W. Grosser, was determined to be damaged upon inspection and was replaced with LMW-2 during the SRI. Details regarding well installation are provided in Section 6.3.1.

Discrete soil samples were collected from the surface to the final depth of each boring and were visually classified for soil type, grain size, texture, and moisture content. At the locations completed with the direct push drill rig, continuous macrocore samples were collected in 5-foot long acetate liners to the bottom of each boring. At locations completed with the sonic drill rig, continuous subsurface samples were collected by advancing the drilling casing containing a single use

flexible polyethylene sleeve. Soil cuttings exhibiting no gross impacts were placed back into boreholes after completion of the investigation.

Field screening of soil during sample collection for VOCs using a field calibrated PID equipped with a 10.6-electron volt (eV) lamp was completed during the installation of all six test borings. PID readings of 0.1 to 0.5 ppm above background were observed in LSB-3, LSB-4, and LSB-6 and readings of 0.1 to 0.6 ppm above background were observed in LSB-5. No PID readings above background were measured in LSB-1 and LSB-2. PID readings of 0.1 to 1.2 ppm above background were also observed in LMW-1. Petroleum-like impacts, as evidenced by odors, staining, and/or sheen, were not encountered during this investigation. Soil boring logs are provided in Appendix B.

6.2.2 Soil Sampling Methodology

A total of 13 discrete soil samples (including one blind duplicate samples) were collected from the borings for laboratory analysis. Two soil samples were collected at each boring (with the exception of the duplicate samples) from the bottom 2-feet of the fill layer and from the 2-foot interval corresponding to the proposed Site development excavation.

Samples submitted for VOC analysis were collected from a discrete six-inch interval directly from the polyethylene sleeve or acetate liner via laboratory-supplied Terra Core soil samplers. PFAs samples were also collected directly from the polyethylene sleeve or acetate liner using dedicated nitrile gloves to limit the potential for cross contamination. The remaining two-foot sample interval volume was homogenized and placed in appropriate laboratory-supplied containers for all additional analyses. The sample containers were labeled, placed in a laboratory-supplied cooler and packed on ice (to maintain a temperature of 4±2°C). The sample coolers were picked up and delivered via courier under standard chain-of-custody protocol to by York Analytical Laboratories, Inc. of Stratford, Connecticut, a NYSDOH ELAP-certified analytical laboratory (ELAP ID No. 10854). In addition, QA/QC samples including one duplicate, one field blank, and two trip blanks were collected.

Soil samples from all of the borings were analyzed for TCL VOCs, TCL SVOCs, pesticides, PCBs, herbicides, TAL metals, cyanide, hexavalent chromium, trivalent chromium, PFAs, and 1,4-dioxane. A sample summary is provided as Table 1.

6.3 Groundwater Investigation

As requested in Comment 1 of the 10 December 2018 DEC letter, one additional groundwater monitoring well, LMW-1, was installed in direct proximity of the previously identified on-Site suspected gasoline UST associated with AOC 1. MW-001, previously installed by P.W. Grosser, was observed to be damaged at the surface upon Site inspection. The remnants of the two-inch PVC riser was observed in the general area of the monitoring well location; however, the flush-mounted protective casing or j-plug were missing. Langan attempted to gauge the remaining well to determine if the integrity of the well had been compromised and an obstruction was encountered approximately three-feet below ground surface. As the well was determined to have been destroyed, a replacement well (LMW-2) was installed at this location during the SRI. Additionally, as requested in Comment 2 of the DEC letter, an additional round of groundwater sampling was completed at all on-Site locations previously sampled, in addition to the additional monitoring well installed as part of this SRI.

A Langan field engineer documented the installation of permanent groundwater monitoring well LMW-1 and LMW-2 by AARCO on 16 March 2020 and 17 March 2020, respectively. Monitoring well locations are provided on Figures 5 and 7, and construction logs are included in Appendix B.

6.3.1 Monitoring Well Installation and Development Methodology

Monitoring wells LMW-1 and LMW-2 were installed via Sonic drilling to approximately 80 feet bgs and 70 feet bgs, respectively, which corresponded to approximately 7.5-feet into the groundwater table as observed within the soil borings. Both wells were constructed with 15-feet of 2-inch diameter 0.010-inch slot schedule 40 PVC well screen and the remainder of the well was constructed of 2-inch diameter schedule 40 PVC riser. The well annulus around the screen of both wells was backfilled with No. 2 sand to a depth corresponding to approximately 2-feet above the screened interval. A 2-foot thick hydrated bentonite seal was installed above the sand pack. The remaining annulus was backfilled with soil

cuttings developed during well drilling activities and placed at depths generally consistent with which the cuttings were retrieved. The monitoring wells were finished with flush-mount metal protective casings and concrete.

Following well construction completion, each well on Site was developed by removing a total of three to ten well volumes using a whale pump and dedicated polyethylene tubing, or until the groundwater was relatively free of silt. Purged groundwater from development activities was discharged to the vegetated Site surface as the historic data only identified limited metals concentrations above groundwater standards and no impacts (odor, sheen, and/or product) were observed in the wells.

All groundwater monitoring wells were surveyed by a licensed surveyor and synoptically gauged with an oil/water interface probe on 18 March 2020. Groundwater was encountered at depths ranging from approximately 70.45 to 71.83 feet bgs corresponding with approximately el +6.76 and el +10.23. Groundwater flow direction was determined to be towards the east-southeast. A potentiometric surface map is provided as Figure 3.

Groundwater monitoring well locations are shown on Figure 7. Well construction details are provided in Appendix B.

6.3.2 Groundwater Sampling Methodology

Groundwater samples were collected on 22 March 2020, five days following well development activities, completed on 17 March 2020. Samples were collected in accordance with the procedures in the USEPA's low-flow groundwater sampling procedure ("Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells", EQASOP-GW 001, 19 January 2010) to allow for collection of a representative sample. Monitoring wells were purged and physical/chemical parameters (e.g., temperature, dissolved oxygen, oxygen reduction potential, and turbidity) were allowed to stabilize to ranges specified in the USEPA guidance before sampling, or until one hour of parameter readings were obtained if stabilization did not occur. Water level readings were not obtained during purging activities to prevent PFAs contamination. Monitoring wells were purged using dedicated bladder pumps with dedicated polyethylene bladders and high density

polyethylene tubing. PFAs samples were collected using dedicated nitrile gloves to limit cross contamination. No notable field observations of impacts were identified during purging and sample collection. Purge water was discharged to the vegetated Site surface. Low flow groundwater sampling parameter sheets are provided in Appendix C.

Six groundwater samples (including one blind duplicate sample) were collected into laboratory-supplied glassware, packed with ice to maintain a temperature of ±4°C, and transported via courier service to York under chain-of-custody protocol. QA/QC samples including one duplicate, one field blank, and one trip blank were collected. Groundwater samples were analyzed for TCL VOCs, TCL SVOCs, pesticides, PCBs, herbicides, total and dissolved TAL metals, cyanide, hexavalent chromium, trivalent chromium, PFAs, and 1,4-dioxane.

6.4 Soil Vapor Investigation

As requested in Comment 4 of the December 2018 DEC letter, additional soil vapor sampling was performed at or just below Site development depth in accordance with NYSDOH Guidance of Soil Vapor Intrusion to supplement the historical Site wide soil vapor assessment previously performed.

Eight exterior soil vapor sampling points (LSV-1 through LSV-8) were installed to the development depth corresponding to approximately 16- to 20-feet bgs; however, due to excessive levels of moisture in the subsurface, soil vapor samples could not be collected. Based on this soil vapor sample points were installed between 1.5 and 4 feet bgs rather than the proposed development depth. One duplicate soil vapor and one ambient air sample were collected for QA/QC purposes. Sampling was conducted in general accordance with the NYSDOH October 2006 Final Guidance for Evaluating Soil Vapor Intrusion in New York.

6.4.1 Soil Vapor Implant Installation and Sampling Procedures

Temporary soil vapor sampling points LSV-1 through LSV-8 were installed on 18 March 2020 by AARCO and sampled on 20 March 2020 by Langan. Soil vapor points were installed to the proposed development depth of approximately 16- to 20-feet bgs. Following the completion of their construction, purging was attempted in accordance with the methodology discussed below. Purging of the points installed to the proposed development depth was unsuccessful due to excessive

moisture encountered in the native sand material at depths of approximately 5-feet bgs to the proposed development depth of approximately 20-feet bgs. As such, the temporary soil vapor points were attempted at successively shallower depths until a soil vapor sample could be successfully retrieved. The resulting depth for each of the soil vapor sampling points installed as part of this SRI ranged from 1.5- to 4-feet bgs. Each of the soil vapor points was installed via direct push drilling. Temporary soil vapor sampling points were installed using Teflon-lined polyethylene tubing connected to a dedicated expendable six-inch stainless steel screen. No. 1 sand was used to backfill up to approximately one-foot above the screened interval followed by a hydrated granular bentonite clay seal to the ground surface.

Prior to sampling, each soil vapor sampling point was tightness tested using the helium tracer gas method and purged at a flow rate of <200-ml per minute. No evidence of helium breakthrough (i.e., helium concentrations above 5%) was observed in any of the sample locations before sample collection. PID readings for VOCs collected from the purged soil vapor were measured at concentrations ranging from 120 ppb (LSV-6) to 1,535 ppb (LSV-6) during field screening of each location. Soil vapor sampling locations are shown on Figure 8 and soil vapor sampling field logs are provided in Appendix D.

Soil vapor samples were collected in laboratory-cleaned and certified evacuated 6-L stainless steel summa canisters with regulators supplied by York and were laboratory analyzed for VOCs via USEPA TO-15 Method. The regulators were set to collect each sample over a 2-hour sampling period (a flow-rate of <200-ml per minute) as per USEPA/ITRC soil vapor sampling guidance. Each soil vapor sample was numbered and recorded in a field log book. Samples were transferred to the laboratory immediately after field sampling was completed, and stored at a maximum room temperature of 30° Celsius. Chain-of-custody forms were utilized to document custody for the acquisition, possession, and analysis.

6.4.2 Ambient Air Sampling Procedures

Concurrently with soil vapor sampling, an ambient air sample was collected to evaluate external influences on soil vapor quality for quality assurance purposes.

The ambient air sample was collected in a laboratory-cleaned and certified evacuated 6-L stainless steel summa canister with regulators supplied by York and were laboratory analyzed for VOCs via USEPA TO-15 Method. The regulators were set to collect the sample over an 8-hour sampling period (a flow-rate of <12.5-ml per minute). The sample was numbered and recorded in a field log book and subsequently transferred to the laboratory immediately after field sampling was completed, and stored at a maximum room temperature of 30° Celsius. Chain-of-custody forms were utilized to document custody for the acquisition, possession, and analysis.

6.5 Quality Assurance Samples and Data Validation

All soil, groundwater, and soil vapor sampling devices were properly decontaminated according to NYSDEC and ASTM (ASTM D-5088-90) guidelines prior to each sampling location. For soil sampling this included the use of a dedicated acetate liner within a stainless steel macrocore sampling device for the locations drilled with the direct push drill rig or a dedicated flexible polyethylene sleeve within the drilling casing for the locations drilled with the Sonic rig. Soil samples were then placed in glassware supplied by the laboratory. For groundwater, all non-dedicated sampling equipment was thoroughly washed with an alconox/water solution wash to remove residual groundwater, followed by successive rinses of distilled/deionized water. For soil vapor, dedicated expendable six-inch stainless steel screens and tubing were used.

Each sample was numbered and recorded in a field log book. Soil and groundwater samples were transferred to the laboratory immediately after field sampling was completed, and were stored at a maximum of 4° Celsius. Soil vapor samples were transferred to the laboratory immediately after field sampling was completed, and were stored at a maximum room temperature of 30° Celsius. Chain-of-custody forms were utilized to document custody for the acquisition, possession and analysis.

Quality assurance (trip blanks) and quality control samples (field blank samples, duplicate samples, matrix spike/matrix spike duplicate [MS/MSD] samples, and ambient air samples) were incorporated into the sampling events and consisted of two field blanks (one for soil and one for groundwater), three

duplicate samples (one for soil, one for groundwater, and one for soil vapor), three trip blanks (two for soil and one for groundwater), one MS/MSD for soil, and one ambient air sample for soil vapor. Additionally, three equipment blanks (two for soil and one for groundwater) for PFAs analysis were collected.

A soil duplicate sample was collected from the LSB-6B location for TCL VOCs, TCL SVOCs, pesticides, PCBs, herbicides, TAL metals, cyanide, hexavalent chromium, trivalent chromium, PFAs, and 1,4-dioxane analysis; the analytical results were consistent with those reported for the LSB-6B sample with the exception of aluminum, barium, calcium, total chromium, trivalent chromium, cobalt, magnesium, manganese, nickel, potassium, sodium, vanadium, zinc, and perfluorooctanesulfonic acid (PFOS) which were compared to precision criteria and subsequently qualified. The soil sampling field blank was also collected and analyzed for TCL VOCs, TCL SVOCs, pesticides, PCBs, herbicides, total and dissolved TAL metals, cyanide, hexavalent chromium, trivalent chromium, PFAs, and 1,4-dioxane. The metals potassium and mercury and the PFAs compounds N-MeFOSAA, Perfluoro-n-butanoic acid (PFBA), and Perfluoropentanoic acid (PFPeA) were detected. Two trip blanks were collected and analyzed for VOCs, and no detections were reported in the samples. The two equipment blank samples were collected and analyzed for PFAs. PFBA and PFPeA were detected in both samples collected. Perfluorooctanesulfonic acid (PFOS) was detected in the sample collected on 18 March 2020. Data usability is discussed in Section 6.6.4.

A groundwater duplicate sample was collected from the LMW-1 location for TCL VOCs, TCL SVOCs, pesticides, PCBs, herbicides, total and dissolved TAL metals, cyanide, hexavalent chromium, trivalent chromium, PFAs, and 1,4-dioxane analysis; the analytical results were consistent with those reported for the LMW-1 sample with the exception of tert butyl alcohol and caprolactam which were compared to precision criteria and subsequently qualified. A field blank was also collected and analyzed for TCL VOCs, TCL SVOCs, pesticides, PCBs, herbicides, total and dissolved TAL metals, cyanide, hexavalent chromium, trivalent chromium, PFAs, and 1,4-dioxane. The PFAs compounds PFBA, PFOA, and PFPeA were detected in the field blank. Two trip blanks were collected and analyzed for VOCs, and no detections were reported in the samples. An equipment blank sample was collected and analyzed for PFAs. PFBA and PFPeA were detected in the sample collected. Data usability is discussed in Section 6.6.4.

A soil vapor duplicate sample was collected from sampling point LSV-1 for VOC analysis; select target compounds including benzene, carbon disulfide, chloroethane, n-hexane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 2-hexanone, 4-ethyltoluene, acetone, ethylbenzene, isopropanol, methyl ethyl ketone, m-p-xylene, n-heptane, o-xylene, styrene, tetrachloroethylene, and toluene were compared to precision criteria and subsequently qualified. The ambient air sample was collected for VOCs. Compounds detected in the sample include 1,2,4-trimethylbenzene, 4-ethyltoluene, acetone, benzene, carbon tetrachloride, chloromethane, cyclohexane, dichlorodifluoromethane, ethylbenzene, isopropanol, m,p-xylene, methyl ethyl ketone, methyl methacrylate, methylene chloride, n-heptane, n-hexane, o-xylene, tetrachloroethene, toluene, trichloroethene, and trichlorofluoromethane. These compounds were also detected in corresponding soil vapor samples collected. Data usability is discussed in Section 6.6.4.

Analytical data was submitted to a Langan validator for review in accordance with USEPA and NYSDEC validation protocols. A DUSR was prepared for each delivery group following data validation. The DUSR presents the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain-of-custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method. For each of the organic analytical methods, the following was assessed:

- Holding times
- Instrument tuning
- Instrument calibrations
- Blank results
- System monitoring compounds or surrogate recovery compounds (as applicable)
- Internal standard recovery results
- MS/MSD results
- Target compound identification
- Chromatogram quality
- Compound quantization and reported detection limits
- System performance
- Results verification

DUSRs are provided in Appendix F. Based on the results of data validation, the following qualifiers may be assigned to the data in accordance with the USEPA guidelines and best professional judgment:

- **R** – The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- **J** – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- **UJ** – The analyte was not detected at a level greater than or equal to the reporting limit (RL); however, the reported RL is approximate and may be inaccurate or imprecise.
- **U** – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- **NJ** – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

After data validation was complete, validated data was used to prepare the tables and figures included in this report.

6.6 Laboratory Analytical Results

Summaries of the laboratory analytical results for soil, groundwater, and soil vapor are provided in Tables 2A, 2B, 3A, 3B, and 4 and are shown on Figures 6, 7, and 8. Analytical results are discussed in detail below. The complete laboratory analytical packages are provided in Appendix E.

6.6.1 Soil Analytical Results

All soil analytical results were compared to the NYSDEC Unrestricted Use SCOs, Restricted Residential RUSCOs, and Protection of Groundwater SCOs and are summarized in Table 2A and on Figure 6. Duplicate soil samples results are not included in the discussion as these samples are collected for quality assurance/quality control verification of the laboratory results only and are discussed in Section 6.5.

VOCs

Analytical results revealed no exceedances of the NYSDEC Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs.

SVOCs

Analytical results revealed exceedances of the NYSDEC Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs for polycyclic aromatic hydrocarbons (PAHs), a subset of SVOCs typically indicative of historic fill.

Protection of Groundwater SCO exceedances include benzo(a)anthracene (2.35 milligrams per kilogram [mg/kg] – 22 mg/kg), benzo(b)fluoranthene (1.94 mg/kg – 10.9 mg/kg), benzo(k)fluoranthene (3 mg/kg), and chrysene (1.99 mg/kg). Restricted Residential RUSCO exceedances include benzo(a)pyrene (2.01 mg/kg – 14.1 mg/kg), benzo(k)fluoranthene (4.03 mg/kg – 8.99 mg/kg), chrysene (7.3 mg/kg – 25.5 mg/kg), dibenzo(a,h,)anthracene (0.488 mg/kg – 3.03 mg/kg), and indeno(1,2,3-c,d)pyrene (1.29 mg/kg – 5.28 mg/kg). Unrestricted Use SCO exceedances include benzo(k)fluoranthene (1.66 mg/kg). PAH exceedances were limited to the shallow samples collected within the historic fill layer, no exceedances of SVOCs were detected in the soil samples collected in native material in the depth interval corresponding to that directly beneath the proposed development depth. The sample collected from LSB-5, located in the southwestern portion of the Site, from 2 to 4 feet bgs exhibited the highest concentrations of PAHs.

Pesticides

Analytical results revealed exceedances of the NYSDEC Unrestricted Use SCOs for pesticides. The compounds 4,4'-DDD (0.00422 mg/kg – 0.0453 mg/kg), 4,4'-DDE (0.00678 mg/kg – 0.015 mg/kg), 4,4'-DDT (0.00848 mg/kg – 0.0483 mg/kg), and dieldrin (0.00707 mg/kg) were identified in exceedances on the Unrestricted Use SCOs. Pesticide exceedances were limited to the shallow samples collected within the historic fill layer, no exceedances of SVOCs were detected in the soil samples collected in native material in the depth interval corresponding to that directly beneath the proposed development depth. The sample collected from LSB-2, located in the northeastern portion of the Site, from

2 to 4 feet bgs exhibited the highest concentrations of pesticides. Additionally, no exceedances of the NYSDEC Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs were identified for pesticides.

Herbicides

Analytical results revealed no exceedances of the NYSDEC Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs.

PCBs

Analytical results revealed no exceedances of the NYSDEC Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs.

Inorganics

Analytical results revealed exceedances of the NYSDEC Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs for metals. Protection of Groundwater SCO exceedances include barium (1,650 mg/kg) and lead (632 mg/kg – 1,500 mg/kg). Restricted Residential RUSCO exceedances include barium (441 mg/kg – 581 mg/kg). Unrestricted Use SCO exceedances include hexavalent chromium (1.19 mg/kg), trivalent chromium (33.6 mg/kg), copper (68.4 mg/kg – 88.6 mg/kg), mercury (0.264 mg/kg – 0.663 mg/kg), nickel (30.9 mg/kg), and zinc (384 mg/kg – 620 mg/kg). Inorganic exceedances were limited to the shallow samples collected within the historic fill layer, no exceedances of SVOCs were detected in the soil samples collected in native material in the depth interval corresponding to that directly beneath the proposed development depth.

Emerging Contaminants (1,4-dioxane and PFAs: 21-Compound List)

Thirteen soil samples (including one duplicate) were sampled for emerging contaminants per- and polyfluoroalkyl substances (PFAs) and 1,4-dioxane per NYSDEC's initiative to understand the presence of these constituents in the environment across New York State. There are currently no NYSDEC SCOs for these compounds in soil. Analytical results are shown in Table 2B and Figure 6,

The compound 1,4-dioxane was not detected in primary soil samples. PFAs compounds were detected in all soil samples collected except the sample collected from LSB-4 from 16 to 18 feet bgs. Compounds detected in soil samples ranged from 0.0661 µg/kg of perfluorodecanoic acid to 3.71 µg/kg of perfluorooctanesulfonic acid in LSB-2 from 2 to 4 feet bgs. PFAs compounds were also detected in select equipment and field blank samples, including perfluoropentanoic acid, perfluorobutanoic acid, N-methyl perfluorooctane- sulfonamidoacetic acid, and perfluorooctanesulfonic acid. Associated primary sample result were qualified appropriately based on concentrations of the aforementioned analytes. Total PFAs concentrations ranged from 0.0663 µg/kg in LSB-1 from 16 to 18 feet bgs to 3.7761 µg/kg in LSB-2 from 2 to 4 feet bgs.

Conclusions

Impacts indicative of contaminated historic fill are present on Site. Exceedances of the analytes associated with contaminated historic fill, including PAHs, pesticides, and metals, were detected within the contaminated historic fill layer. No exceedances above the NYSDEC Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs were detected in native samples collected from 16 to 20 feet bgs during the investigation. Total PFAs concentrations ranged from 0.0663 µg/kg in LSB-1 from 16 to 18 feet bgs to 3.7761 µg/kg in LSB-2 from 2 to 4 feet bgs.

6.6.2 Groundwater Analytical Results

All groundwater analytical results were compared to the NYSDEC SGVs and are summarized in Table 3A and on Figure 7. Duplicate groundwater samples results are not included in the discussion as these results are discussed in detail in Section 6.5.

VOCs

Analytical results revealed no exceedances of the NYSDEC SGVs.

SVOCs

Analytical results revealed no exceedances of the NYSDEC SGVs.

Pesticides

Analytical results revealed no exceedances of the NYSDEC SGVs.

Herbicides

Analytical results revealed no exceedances of the NYSDEC SGVs.

PCBs

Analytical results revealed no exceedances of the NYSDEC SGVs.

Inorganics

Analytical results revealed exceedances of the NYSDEC SGVs for metals in all groundwater samples collected during the investigation. Exceedances include total chromium (117 µg/L), iron (1,330 µg/L – 31,400 µg/L), lead (41.5 µg/L), magnesium (46,300 µg/L – 74,900 µg/L), dissolved magnesium (40,700 µg/L – 81,000 µg/L), manganese (312 µg/L – 1,490 µg/L), dissolved manganese (310 µg/L - 315 µg/L), sodium (118,000 µg/L – 254,000 µg/L), and dissolved sodium (119,000 µg/L – 255,000 µg/L). Due to the depth of groundwater, and the lack of protection of groundwater exceedances in soil within the shallow native material, the detections of metals are attributed to naturally occurring background concentrations.

Emerging Contaminants (1,4-dioxane and PFAs: 21-Compound List)

Groundwater samples collected from all monitoring wells were sampled for emerging contaminants PFAs and 1,4-dioxane per NYSDEC's initiative to understand the presence of these constituents in the environment across New York State. There are no NYSDEC TOGS SGVs for these compounds. Analytical results are shown in Table 3B and Figure 7.

The compound 1,4-dioxane was not detected in groundwater samples. PFAs compounds were detected in all groundwater samples collected. Compounds detected in groundwater samples ranged from 0.000515 µg/L of sodium 1H, 1H,2H,2H-perfluorooctane sulfonate (6:2) in MW-004 to 0.0489 µg/L of perfluorooctanoic acid in MW-003. Total PFAs concentrations ranged from 97.335 ng/L in MW-004 to 143.73 ng/L in MW-003.

Conclusions

Analytical results revealed no exceedances of the NYSDEC SGVs for VOCs, SVOCs, pesticides, herbicides, and PCBs. Metals were detected in exceedance of NYSDEC SGVs, although these exceedances are likely attributable to naturally occurring background concentrations due to the depth of groundwater. According to the NYSDEC Guidelines Sampling and Analysis of PFAs dated January 2020, further assessment of PFAs is not needed if individual PFAs compounds are detected below 100 ng/L and the total concentration of PFAs compounds are detected below 500 ng/L. As neither of these thresholds were identified, further assessment of PFAs is not needed at the site.

6.6.3 Soil Vapor Analytical Results

Exterior soil vapor analytical results were compared to NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion Matrices A through C dated October 2006 and revised in May 2017. These results are summarized in Table 4 and are shown on Figure 8.

Although not collected from the proposed development depth, the shallow soil vapor results identified elevated concentrations of petroleum-related VOCs including BTEX at cumulative concentrations that ranged from 1.28 microgram per cubic meter (µg/m^3) to 215 µg/m^3. BTEX compounds were detected in all soil vapor samples collected. Additional petroleum-related VOCs including 1,2,4-trimethylbenzene (19.2 µg/m^3– 97 µg/m^3) and 1,3,5-trimethylbenzene (5.03 µg/m^3 – 74.4 µg/m^3) were also detected. The highest concentrations of petroleum related compounds were identified in LSV-1 located within the northwestern portion of the Site.

The VOCs cis-1,2-dichloroethene and 1,1-dichloroethene were not detected in any of the soil vapor samples. According to the NYSDOH Soil Vapor Intrusion Matrix A, TCE (0.312 µg/m^3) and carbon tetrachloride (0.386 µg/m^3 – 0.528 µg/m^3) concentrations in soil vapor were identified below the monitoring and/or mitigation threshold. According to the NYSDOH Soil Vapor Intrusion Matrix B, PCE (3.99 µg/m^3 – 34.6 µg/m^3), 1,1,1-trichloroethane (0.945 µg/m^3), and methylene chloride (1.12 µg/m^3 – 2.62 µg/m^3) concentrations in soil vapor were identified below the monitoring and/or mitigation threshold.

According to the NYSDOH Soil Vapor Intrusion Matrix C, vinyl chloride (1.65 µg/m^3) concentrations in soil vapor were identified below the monitoring and/or mitigation threshold.

Conclusions

Results of the soil vapor evaluation did not evaluate the soil vapor conditions at development depth due to the presence of excessive soil moisture content at that depth. The shallow soil vapor evaluation did not identify any impacts that would require monitoring or mitigation per the NYSDOH guidance values; however, elevated concentrations of BTEX were identified in the sample results.

6.6.4 Data Usability

The DUSRs were prepared in accordance with DER-10 and reviewed by Langan's in-house validator before issuance. The DUSRs presented the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of deficiencies for each analytical method. DUSRs for the SRI are provided in Appendix F.

All data are considered usable, as qualified, with the exception of the rejected results which includes the VOC acrolein in all primary groundwater samples collected and associated field blanks and trip blanks. SVOC analytes associated with the surrogate perylene-d12, including benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene, were also considered rejected. Some data qualifiers were appended to the reported results, which have been included in the respective data summary tables (Tables 2A through 4). Copies of the DUSRs are included in Appendix F.

6.7 Evaluation of Areas of Concern

This section discusses the results of the SRI with respect to the AOCs described in detail in Section 5.0. As discussed previously, AOC 2 did not require further investigation and AOC 3 will be evaluated as part of the pre-development waste characterization of soil for disposal purposes. This additional evaluation of soil will be documented in the forthcoming RAWP.

AOC 1: Gasoline Underground Storage Tank

According to Sanborn Maps provided in the 2017 Phase I ESA by P.W. Grosser, a gasoline UST was present in the southwestern portion of the Site on Lot 38 between 1951 and 1965. During the 2018 RI by P.W. Grosser, a geophysical survey confirmed the presence of an approximately 7-foot by 9-foot metallic anomaly consistent with the presence of an UST.

Historical soil vapor analytical results indicate that impacts may be present from the gasoline UST. Analytical results include detections of chlorinated VOCs, although detections were below the NYSDOH guidance values that would require monitoring or mitigation; elevated concentrations of BTEX were also identified. Based on the nature and concentration of compounds observed in the soil vapor samples, a significant soil vapor threat to potential on-Site or off-Site receptors does not exist. The detected impacts in the surficial soil, including Unrestricted Use SCOs and RUSCOs exceedances for SVOCs, pesticides, PCBs, and metals, may also be associated with the presence of contaminated historic fill. Groundwater was not evaluated in the vicinity of the gasoline underground storage tank as part of the RI. As a soil sample could not be collected directly beneath the identified anomaly (former UST), petroleum impacts may be encountered during tank removal.

The results of the geophysical survey conducted as part of this SRI in this area did not identify the location of this suspected UST. A total of two soil borings (LSB-5 and LSB-6) were completed downgradient of the suspected UST during the SRI and analytical results revealed no petroleum related VOCs above Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs. Analytical results from LMW-1, installed downgradient of the suspected UST, revealed no petroleum related VOCs above NYSDEC SGVs. Metals were detected above NYSDEC SGVs, however, due to the depth of groundwater, these detections are likely attributable to naturally occurring background concentrations. Soil vapor analytical results from LSV-5, downgradient of the suspected UST, and LSV-6, northeast of the suspected UST, did not identify any impacts that would require monitoring or mitigation per the NYSDOH guidance values; however, elevated concentrations of BTEX were identified in the sample results. Soil and soil vapor analytical results are consistent with previous investigations and did not identify a spill release source. Groundwater conditions in the vicinity of UST were not evaluated in previous

investigations, although results from this SRI are not indicative of a spill release to the source area.

AOC 4: Historic Fill

Historical soil sample analytical results exceeding the Unrestricted Use SCOs and RUSCOs for SVOCs, pesticides, PCBs, and metals were detected throughout the Site in shallow (0 to 2 feet bgs) and intermediate (4 to 6 feet, 5 to 7 feet, and 6 to 8 feet) samples. The historic fill layer was visually observed up to approximately 9-feet bgs at the Site and predominantly consisted of brown silty sand with concrete, brick, and construction debris.

Contaminated historic fill characteristics and contaminants observed during this investigation are consistent with results of previous investigations. Exceedances of analytes associated with historic fill, including PAHs, pesticides, and metals, above the NYSDEC Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs were detected within the historic fill layer.

The results of this investigation were also used to perform a Site wide assessment of soil, groundwater, and soil vapor. The findings of this investigation are consistent with findings of previous investigations. Impacts indicative historic fill are present on Site, the contaminated historic fill is underlain by a native sand with varying amounts of silt and gravel. Laboratory analytical results of samples collected from this material at development depth did not identify any exceedances of the NYSDEC Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs.

Metals in groundwater were detected in exceedance of NYSDEC SGVs, although these exceedances are likely attributable to naturally occurring background concentrations due to the depth of groundwater. Results of the shallow soil vapor evaluation did not identify any impacts that would require monitoring or mitigation per the NYSDOH guidance values; however, elevated concentrations of BTEX were identified in the sample results.

7.0 QUALITATIVE HUMAN AND FISH/WILDLIFE EXPOSURE ASSESSMENT

Human health exposure risk was evaluated for both current and future Site and off-Site conditions, in accordance with the May 2010 NYSDEC Final DER-10 Technical Guidance for Site Investigation and Remediation. The assessment includes an evaluation of potential sources and migration pathways of Site contamination, potential receptors, exposure media, and receptor intake routes and exposure pathways.

In addition to the human health exposure assessment, NYSDEC DER-10 requires an on-Site and off-Site Fish and Wildlife Resources Impact Analysis (FWRIA) if certain criteria are met. Based on the requirements stipulated in Section 3.10 and Appendix 3C of DER-10, completion of an FWRIA was not required for the Site.

7.1 Current Conditions

The Site is located in the Bedford-Stuyvesant neighborhood of Brooklyn, New York and is identified as Block 1557, Lots 1-4, 23, 26, 28, and 31 through 38 on the NYC Brooklyn Borough Tax Map. The Site has an area of approximately 30,164-square feet (±0.69-acres) and is primarily vacant land. The Site cover consists primarily of vegetation and exposed soil with the exception of an asphalt paved area in the northeastern portion of the Site. The Site is currently zoned for manufacturing and residential use (M1-1/R7D) and is within the Atlantic Avenue Special Mixed-Use District (MX-10).

7.2 Proposed Conditions

The Site is proposed to be developed with a 100% affordable housing residential building. A parking garage containing 44 spaces will also be developed in the basement level. The proposed use of the ground floor is as a grocery store, community facility containing housing assistance organization offices, an art gallery, welfare services, and an aquaponics farm.

7.3 Summary of Environmental Conditions

SVOCs, metals, PCBs, and pesticides were detected at concentrations above the NYSDEC Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or PG SCOs in soil samples collected from historic fill. The compound distribution and contaminant concentrations detected are typical of fill material in New York City. Metals were detected in groundwater at concentrations above the NYSDEC

SGVs. Due to the depth of groundwater, detections of metals are likely attributable to naturally occurring background concentrations. Shallow soil vapor sample analytical results detected VOCs at concentrations below the NYSDOH soil vapor intrusion guidance levels which would require monitoring or mitigation in addition to petroleum-related VOCs (BTEX) for which there are no NYSDOH guidance values.

7.4 Conceptual Site Model

A conceptual site model (CSM) was developed based on the findings of the SRI and previous investigations to produce a simplified framework for understanding the distribution of impacted materials, potential migration pathways, and potentially complete exposure pathways.

7.4.1 Potential Sources of Contamination

Potential sources of contamination have been identified and include past uses of the Site contaminated historic fill material and historical petroleum bulk storage. Historical on-Site and adjacent site use for auto wrecking, auto painting, and auto repair facilities including gasoline and fuel oil storage are potential sources of SVOCs in soil and petroleum-related and chlorinated VOCs in soil vapor. The Site-wide presence of historic fill has been established as a source of SVOCs, PCBs, pesticides, and metals in soil. Due to the depth of groundwater, detections of metals are likely attributable to naturally occurring background concentrations. Groundwater is not considered to be impacted by contamination caused by historic fill or historical Site operations based on available analytical results.

7.4.2 Exposure Media

Impacted media include soil and soil vapor. Analytical data indicates that historic fill material contains SVOCs, pesticides, PCBs, and metals at concentrations greater than the Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or the Protection of Groundwater SCOs. Soil vapor at the Site is impacted with petroleum-related VOCs (BTEX) and the chlorinated VOCs PCE, TCE, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and vinyl chloride; however, concentrations detected are at concentrations below which the New York

State Department of Health (NYSDOH) soil vapor intrusion guidance levels which would require monitoring or mitigation.

7.4.3 Receptor Populations

The Site currently consists of vacant land. The Site is enclosed in fencing with restricted access to authorized guests and personnel investigating environmental conditions. During Site development and remediation, human receptors will be limited to construction and remediation workers, authorized guests, design team members visiting the Site, and the public adjacent to the Site. Under future conditions, receptors will include the new building occupants, visitors to the building, and building management/maintenance employees.

7.5 Potential Exposure Pathways – On-Site

7.5.1 Current Conditions

Human exposure to contaminated soil is currently limited as the Site is vacant and secured with fencing. In areas where human exposure to contaminated soil is possible, the potential exposure pathway for dermal absorption, inhalation and ingestion is controlled by limiting Site access and through implementation of a HASP by those handling Site media (i.e., investigation).

Due to the depth of groundwater, and the fact that detections of metals are attributed to naturally occurring background concentrations, there is no pathway of exposure to groundwater. Additionally, groundwater in New York City is not used as a potable water source, hence there is no complete exposure pathway under current Site conditions. However, there is a potential exposure pathway through dermal absorption, inhalation, and ingestion during investigative groundwater sampling, but it is controlled by limiting Site access and through the implementation of the HASP during sampling.

Because the Site is currently vacant and lacking enclosed spaces, there are minimal current on-Site exposure pathways for soil vapor intrusion. Soil vapor that may penetrate through the unpaved surface of the Site primarily migrates vertically through the subsurface and will dissipate and dilute with ambient air. Any remaining potential exposure pathways through dermal absorption and inhalation is controlled by limiting Site

access and through the implementation of a HASP during ground-intrusive work.

7.5.2 Construction/Remediation Conditions

Construction and remediation may result in potential exposures to Site contaminants in the absence of a Health and Safety Plan (HASP) and a Community Air Monitoring Plan (CAMP). Construction and remedial activities will likely include excavation and off-Site disposal of impacted soil, and construction of foundation components. In the absence of a HASP and CAMP, this scenario presents the potential for exposure of soil contaminants to construction and remediation workers via dermal absorption, ingestion, and inhalation of vapors and particulate matter. This exposure pathway will be marginalized through the implementation of the HASP, CAMP, and vapor and dust suppression techniques.

7.5.3 Proposed Future Conditions

Currently, the contemplated project includes a 100% affordable housing residential building with a commercial ground floor. New development will incorporate a cover system across the Site and vapor mitigation measures. These measures will prevent human exposure to impacted soil and groundwater and potential soil vapor intrusion.

There is no pathway for ingesting groundwater contaminants, since the Site and surrounding areas obtain their drinking water supply from surface water reservoirs located upstate and not from groundwater.

Based on results of the previous investigations and this SRI, it is anticipated that a Track 1 cleanup will be achieved; however, if Track 1 cannot be achieved, institutional controls and/or engineering controls will be included in the remedy to reach Track 4 cleanup and to prevent exposure to any remaining residual contamination.

7.6 Potential Exposure Pathways – Off-Site

Soil vapor may migrate off-Site vertically through the subsurface and dissipate and dilute with ambient air in instances where the Site surface is compromised or during Site construction/remediation.

The potential off-Site migration of Site soil contaminants is not expected to result in a complete exposure pathway for current, construction and remediation, or future conditions for the following reasons:

- The Site is located in an urban area and predominantly covered with continuous relatively impervious surface covering (i.e. building foundations and concrete paving)
- During Site redevelopment remediation and construction, the following protective measures will be implemented:
    - A Site-specific HASP including a CAMP will be implemented to protect on-Site personnel and to monitor the perimeter of the site to mitigate off-Site migration of particulates and VOCs during construction.
    - Air monitoring will be conducted for particulates (i.e., dust) and VOCs during intrusive activities as part of a CAMP. Dust and/or vapor suppression techniques will be employed to limit potential for off-Site migration of soil and vapors.
    - Vehicle tires and undercarriages will be washed as necessary prior to leaving the Site to prevent tracking material off-Site.
    - A soil erosion/sediment control plan will be implemented during construction to control off-Site migration of soil.

7.7 Evaluation of Human Health Exposure

Based upon the CSM and the review of environmental data, partial on-Site exposure pathways appear to be present under current conditions, and in the absence of institutional and engineering controls, complete on-Site exposure pathways could potentially exist in construction/remediation and future conditions.

Complete exposure pathways have the following five elements: 1) a contaminant source; 2) a contaminant release and transport mechanism; 3) a point of exposure; 4) a route of exposure; and 5) a receptor population.

7.7.1 Current Conditions

Contaminant sources include contaminated historic fill with elevated levels of SVOCs, metals, PCBs and pesticides; PAHs and metals impacted soil and groundwater; and VOC-impacted soil vapor.

Contaminant release and transport mechanisms include contaminated soil transported as dust (dermal, ingestion, inhalation), and existing soil vapor contaminants (inhalation). Under current conditions, the likelihood of human exposure is limited, as site access is restricted to employees, ownership and authorized visitors.

7.7.2 Construction/Remediation Activities

During remedial construction, points of exposure include disturbed and exposed soil during excavation and dust and organic vapors generated during soil excavation and off-Site disposal. Routes of exposure include ingestion and dermal absorption of contaminated soil, inhalation of organic vapors arising from contaminated soil, and inhalation of dust arising from contaminated soil. The receptor population includes construction and remediation workers and, to a lesser extent, the public adjacent to the Site.

The potential for completed exposure pathways is present since all five elements exist; however, the risk will be minimized by limiting Site access and through implementation of appropriate health and safety measures, such as monitoring the air for organic vapors and dust, using vapor and dust suppression measures, cleaning truck undercarriages before they leave the Site to prevent off-Site soil tracking, maintaining Site security, and wearing the appropriate personal protective equipment (PPE).

7.7.3 Proposed Future Conditions

Remedial construction is expected to remove all on-Site contaminants. After construction, residual contaminants may remain on-Site if a Track 1 remedy is not achieved, and to a lesser extent, would include those listed under current conditions. Contaminant release and transport mechanisms include penetrations through the building foundations and any remaining exposed soil. If protective measures and remediation are not implemented, points of exposure include potential cracks in the

proposed building foundation and exposure during any future soil-disturbing activities. Routes of exposure may include inhalation of vapors entering the buildings or dust during any soil-disturbing work. The receptor population includes the building tenants, property employees, visitors and maintenance workers. If a Track 1 remedy is not achieved, the possible routes of exposure can be avoided or mitigated by proper installation of soil vapor mitigation measures, construction and maintenance of a composite cover system (i.e., concrete or at least two feet of clean soil), and implementation of a Site Management Plan.

7.7.4 Human Health Exposure Assessment Conclusions

1. Under current conditions, there is a marginal risk for exposure. The primary exposure pathways are for dermal contact, ingestion and inhalation of soil or soil vapor by Site construction and remediation workers. Exposure to groundwater is limited to those completing investigation activities. The exposure risks can be avoided or minimized by limiting Site access and implementing the appropriate health and safety and vapor and dust suppression measures outlined in a Site-specific HASP and CAMP during ground-intrusive activities
2. In the absence of protective measures, there is a moderate risk of exposure during the construction and remediation activities. The primary exposure pathways are:
    a. Dermal contact, ingestion and inhalation of contaminated soil, groundwater, or soil vapor by Site visitors and construction and remediation workers.
    b. Dermal contact, ingestion and inhalation of soil (dust) and inhalation of soil vapor by the community in the vicinity of the Site.

    These exposure pathways can be avoided or minimized by performing community air monitoring and by following the appropriate health and safety plans, implementing vapor and dust suppression techniques, and using Site security to control access.

3. A complete exposure pathway is possible for the migration of Site contaminants to off-Site human receptors during the remedial construction phase. During this phase, Site access will be limited to authorized visitors and workers and protective measures will be used

during construction to prevent completion of this pathway, including following a Site-specific HASP and implementation of a CAMP.

4. The existence of a complete exposure pathway for Site contaminants to human receptors during proposed future conditions is unlikely, as the majority of on-Site sources of contamination will be excavated and transported for off-Site disposal. If a Track 1 remedy is not achieved, residual Site soil will be capped by a composite cover (i.e., concrete building slab, two feet of clean soil). Regional groundwater is not used as a potable water source in this part of New York City. It is not anticipated that dewatering will be required; the proposed building is not expected to be set within the groundwater table, which will minimize exposure to groundwater. The potential pathway for soil vapor intrusion into the buildings will be minimized for occupied portions of the building basement by the Track 1 soil source removal remedy and a vapor barrier. Additionally, the ventilation system in the parking garage will bring fresh air into the parking garage to help dissipate any vapors trapped in the basement level of the planned development from potential off-Site sources after the remediation.

8.0 NATURE AND EXTENT OF CONTAMINATION

This section evaluates the nature and extent of soil, groundwater and soil vapor contamination. The nature and extent of the contamination is derived from a combination of field observations, historical analytical data, and analytical data that was discussed in Section 6.6.

8.1 Soil Contamination

Historic Fill Material

Acetone was detected exceeding the NYSDEC Unrestricted Use SCO in one soil sample in the northeast portion of the Site from the 0- to 2-foot depth interval. No other VOCs were detected in soil at concentrations exceeding the Unrestricted Use SCOs, Restricted Residential RUSCOs, or Protection of Groundwater SCOs.

SVOCs commonly associated with the presence of historic fill material including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene and pyrene were detected in soil samples collected within the historic fill layer throughout the Site footprint at concentrations exceeding the Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs.

Metals including arsenic, barium, cadmium, total chromium, hexavalent chromium, copper, lead, manganese, nickel, mercury, and zinc were detected in historic fill soil samples collected throughout the Site footprint at concentrations exceeding Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs.

Pesticides detected at concentrations exceeding the Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs were detected in historic fill samples including 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, aldrin, dieldrin, and alpha-chlordane.

PCBs were detected in historic fill samples collected at concentrations exceeding the Unrestricted Use SCOs and in one shallow soil sample at a concentration exceeding the Restricted Residential RUSCOs. PCBs were not detected above the Unrestricted Use SCOs or Restricted Use RUSCOs in any of the deeper samples collected.

Herbicides were not detected above the Unrestricted Use SCOs in any of the samples collected.

Soil sample analytical results exceeding the Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs for SVOCs, pesticides, PCBs, and metals were detected throughout the Site in shallow (0 to32 feet bgs) and intermediate (4 to 6 feet, 5 to 7 feet, and 6 to 8 feet) samples and are attributed to the presence of a contaminated historic fill layer observed up to 9 feet in depth at the Site. Although laboratory analytical results of samples collected from the native material at development depth provided as part of this SRI did not identify any exceedances of the NYSDEC Unrestricted Use SCOs, Restricted Residential RUSCOs, and/or Protection of Groundwater

SCOs, previous investigations did identify exceedances of the Track 1 SCOs in native material down to depths of 20 feet bgs.

8.2 Groundwater Contamination

Groundwater sample analytical results did not identify the presence of VOCs, SVOCs, pesticides, herbicides, or PCBs at concentrations above laboratory detection limits, with the exception of trace concentrations of chloroform, detected at concentrations below the SGV. Metals including total chromium, iron, lead, magnesium, dissolved magnesium, manganese, dissolved magnesium, sodium, dissolved sodium, and dissolved iron and manganese combined were detected in groundwater at concentrations exceeding the SGVs; however, due to the depth of groundwater, these detections are not attributed to the presence of historic fill or potential impacts from historical Site use and are likely attributable to naturally occurring background concentrations.

8.3 Soil Vapor Contamination

Shallow soil vapor sample analytical results detected chlorinated VOCs including PCE, TCE, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and vinyl chloride at concentrations below the NYSDOH soil vapor intrusion guidance levels which would require monitoring or mitigation in addition to petroleum-related VOCs (BTEX) for which there are no NYSDOH guidance values.

9.0 CONCLUSIONS

Stratigraphy: A historic fill layer as deep as 9 feet is underlain by a layer of native sand with varying amounts of silt and gravel. Bedrock was not encountered in any of the soil borings advanced during the previous investigation or this SRI.

Hydrogeology: Depth to groundwater ranges from about 70.45 to 71.83 feet below current Site grade. Although Site topography gently slopes downward to the northwest, the groundwater flow direction was determined to be to the east-southeast based on groundwater elevation data.

Historic Fill Quality: Up to 9 feet of fill material was identified below surface cover. Contaminants related to historic fill material include SVOCs, metals, PCBs and pesticides, which were detected at concentrations above Unrestricted Use SCOs,

Restricted Residential RUSCOs, and/or Protection of Groundwater SCOs within this layer.

Groundwater Quality: Results of the groundwater evaluation completed as part of the previous investigations and this SRI did not identify any impacts, with exception of metals that are determined to be result of background conditions and/or suspended solids.

Soil Vapor Quality: Results of the soil vapor evaluation completed as part of the previous investigations and this SRI did not identify any impacts that would require monitoring or mitigation per the NYSDOH guidance values; however, elevated concentrations of BTEX were identified in the sample results.

Sufficient analytical data were gathered during the RI, together with previous studies, to establish soil cleanup levels and to develop a remedy for the Site. The final remedy will be detailed in the forthcoming Remedial Action Work Plan (RAWP) to be prepared in accordance with NYS BCP guidelines. The remedy will need to address contaminated historic fill impacted with SVOCs, metals, PCBs, and pesticides and VOC-impacted soil vapor.

TABLES

Table 1
Supplemental Remedial Investigation
Sample Summary and Rationale

1912 Atlantic Avenue
Brooklyn, New York
NYSDEC BSP Site No.: C224279
Langan Project No.: 100681201

Matrix	Soil Boring	Sample Name	Sample Depth (ft bgs)	Material	Rationale	Analysis
Soil	LSB-1	LSB-1A	2 - 4	Fill	Investigation of AOC-4 and site wide soil assessment	VOCs SVOCs Pesticides PCBs Herbicides TAL Metals Cyanide Hex./Tri. Chromium PFAs 1,4-Dioxane
		LSB-1B	16 - 18	Native		
	LSB-2	LSB-2A	2 - 4	Fill	Investigation of AOC-4 and site wide soil assessment	
		LSB-2B	16 - 18	Native		
	LSB-3	LSB-3A	1 - 3	Fill	Investigation of AOC-4 and site wide soil assessment	
		LSB-3B	16 - 18	Native		
	LSB-4	LSB-4A	1 - 3	Fill	Investigation of AOC-4 and site wide soil assessment	
		LSB-4B	16 - 18	Native		
	LSB-5	LSB-5A	2 - 4	Fill	Investigation of AOC-1, AOC-4, and site wide soil assessment	
		LSB-5B	20 - 22	Native		
	LSB-6	LSB-6A	2 - 4	Fill		
		LSB-6B	16 - 18	Native		
Groundwater	LMW-1		73	---	Investigation of AOC-1 and site wide groundwater assessment	VOCs SVOCs Pesticides PCBs Herbicides Total and Dissolved TAL Metals Cyanide Hex./Tri. Chromium PFAs 1,4-Dioxane
	LMW-2		73	---	Site wide groundwater assessment	
	MW-002		73	---		
	MW-003		78	---		
	MW-004		73	---		
Soil Vapor	LSV-1		3	---	Site wide soil vapor assessment	VOCs
	LSV-2		4	---		
	LSV-3		2	---		
	LSV-4		2	---		
	LSV-5		2	---	Evaluation of AOC-1 and site wide soil vapor assessment	
	LSV-6		3	---		
	LSV-7		1.5	---	Site wide soil vapor assessment	
	LSV-8		4	---		

Table 2B
Supplemental Remedial Investigation
Soil Sample Analytical Results Summary - Emerging Contaminants

1921 Atlantic Avenue
Brooklyn, New York
NYSDEC BCP Site No.: C224279
Langan Project No.: 100681201

Location	LSB-1		LSB-1		LSB-2		LSB-2		LSB-3		LSB-3		LSB-4		LSB-4		LSB-5		LSB-5		LSB-6		LSB-6		LSB-6	
Sample ID	012_LSB-1A_20200318		013_LSB-1B_20200318		014_LSB-2A_20200318		015_LSB-2B_20200318		008_LSB-3A_20200317		009_LSB-3B_20200317		006_LSB-4A_20200317		007_LSB-4B_20200317		004_LSB-5A_20200317		005_LSB-5B_20200317		001_LSB-6A_20200317		002_LSB-6B_20200317		003_DUP-1_20200317	
Laboratory ID	20C0847-01		20C0847-02		20C0847-03		20C0847-04		20C0787-08		20C0787-09		20C0787-06		20C0787-07		20C0787-04		20C0787-05		20C0787-01		20C0787-02		20C0787-03	
Sample Date	3/18/2020		3/18/2020		3/18/2020		3/18/2020		3/17/2020		3/17/2020		3/17/2020		3/17/2020		3/17/2020		3/17/2020		3/17/2020		3/17/2020		3/17/2020	
Sample Depth (feet bgs)	2-4		16-18		2-4		16-18		1-3		16-18		1-3		16-18		2-4		20-22		2-4		16-18		16-18	
Semivolatile Organic Compounds (µg/kg)																										
1,4-Dioxane (P-Dioxane)	9.52	U	9.62	U	9.35	U	9.62	U	9.35	U	9.8	U	9.8	U	9.26	U	9.35	U	9.62	U	9.35	U	9.8	U	9.52	U
Per and Polyfluoroalkyl Substances (µg/kg)																										
N-ethyl perfluorooctane- sulfonamidoacetic acid (NEtFOSAA)	0.323	JD	0.109	U	0.112	U	0.109	U	0.105	U	0.107	U	0.107	U	0.105	U	0.106	U	0.109	U	0.11	U	0.108	U	0.108	U
Perfluorobutanoic acid (PFBA)	0.407	U	0.191	U	0.196	U	0.19	U	0.209	J	0.187	U	0.188	U	0.184	U	0.199	J	0.191	U	0.224	J	0.19	U	0.19	U
Perfluorodecanoic acid (PFDA)	0.114	U	0.0534	U	0.0661	J	0.0534	U	0.0683	J	0.0525	U	0.0528	U	0.0515	U	0.0895	J	0.0534	U	0.0541	U	0.0533	U	0.0532	U
Perfluoroheptanoic acid (PFHpA)	0.101	U	0.0475	U	0.0488	U	0.0474	U	0.0669	J	0.0467	U	0.0469	U	0.0458	U	0.0461	U	0.0475	U	0.048	U	0.0473	U	0.0473	U
Perfluorohexanoic Acid (PFHxA)	0.147	U	0.0688	U	0.0707	U	0.0687	U	0.17	J	0.0676	U	0.068	U	0.0663	U	0.0668	U	0.0688	U	0.289	J	0.0686	U	0.0685	U
Perfluorononanoic Acid (PFNA)	0.133	U	0.0624	U	0.0641	U	0.0623	U	0.0902	J	0.0614	U	0.0617	U	0.0602	U	0.0606	U	0.0624	U	0.0631	U	0.0622	U	0.0621	U
Perfluorooctanesulfonic acid (PFOS)	0.89	JD	0.0663	J	3.71		0.0926	J	0.896		0.0449	U	0.267	J	0.0441	U	0.751		0.121	J	0.139	J	0.0818	J	0.0455	UJ
Perfluorooctanoic Acid (PFOA)	0.172	U	0.0806	U	0.536	U	0.521	U	0.632		0.091	J	0.0796	U	0.0777	U	0.125	J	0.0806	U	0.103	J	0.136	J	0.111	J
Perfluoropentanoic Acid (PFPeA)	0.205	U	0.0959	U	0.0985	U	0.0958	U	0.14	J	0.0943	U	0.0948	U	0.0925	U	0.104	J	0.0959	U	0.219	J	0.0956	U	0.0955	U

Notes:
1. Only detected analytes are shown in the table.
2. Sample 003_DUP-1_20200317 is a duplicate sample of 002_LSB-6B_20200317.
3. ug/kg = micrograms per kiogram

Qualifiers:
D = The concentration reported is a result of a diluted sample.
J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ – The analyte was not detected at a level greater than or equal to the reporting limit (RL); however, the reported RL is approximate and may be inaccurate or imprecise.
U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Table 2A
Supplemental Remedial Investigation
Soil Sample Analytical Results Summary

1921 Atlantic Avenue
Brooklyn, New York
NYSDEC BCP Site No.: C224279
Langan Project No.: 100681201

Location Sample ID Laboratory ID Sample Date Sample Depth (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted-Residential SCOs	NYSDEC Part 375 Protection of Groundwater SCOs	LSB-1 012_LSB-1A_20200318 20C0847-01 3/18/2020 2-4		LSB-1 013_LSB-1B_20200318 20C0847-02 3/18/2020 16-18		LSB-2 014_LSB-2A_20200318 20C0847-03 3/18/2020 2-4		LSB-2 015_LSB-2B_20200318 20C0847-04 3/18/2020 16-18		LSB-3 008_LSB-3A_20200317 20C0787-08 3/17/2020 1-3		LSB-3 009_LSB-3B_20200317 20C0787-09 3/17/2020 16-18	
Volatile Organic Compounds (mg/kg)															
Acetone	0.05	100	0.05	0.0052	UJ	0.0036	UJ	0.02	J	0.0039	UJ	0.0039	UJ	0.0038	UJ
Bromoform	~	~	~	0.0026	U	0.0018	U	0.0022	U	0.0019	U	0.0019	R	0.0019	R
Ethanol	~	~	~	0.042	UJ	0.029	UJ	0.034	UJ	0.031	UJ	0.044	J	0.049	J
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.12	0.0026	U	0.0018	U	0.004	J	0.0019	U	0.0019	U	0.0019	U
Naphthalene	12	100	12	0.0026	U	0.0018	U	0.17		0.0034	J	0.0019	U	0.0019	U
Semivolatile Organic Compounds (mg/kg)															
2-Methylnaphthalene	~	~	~	0.341	D	0.0467	U	0.452	D	0.0471	U	0.0471	U	0.0457	U
3 & 4 Methylphenol (m&p Cresol)	0.33	100	~	0.0552	JD	0.0467	U	0.0487	U	0.0471	U	0.0471	U	0.0457	U
Acenaphthene	20	100	98	0.729	D	0.0467	U	2.05	D	0.0471	U	0.0548	JD	0.0457	U
Acenaphthylene	100	100	107	0.636	D	0.0467	U	0.539	D	0.0471	U	0.136	D	0.0457	U
Anthracene	100	100	1,000	2.25	D	0.0467	U	5.11	D	0.0471	U	0.192	D	0.0457	U
Benzo(a)Anthracene	1	1	1	**8.03**	D	0.0467	U	**8.22**	D	0.0471	U	0.691	D	0.0457	U
Benzo(a)Pyrene	1	1	22	**6.9**	D	0.0467	U	**5.67**	D	0.0471	U	0.5	D	0.0457	U
Benzo(b)Fluoranthene	1	1	1.7	**5.92**	D	0.0467	U	**4.42**	D	0.0471	U	0.586	D	0.0457	U
Benzo(g,h,i)Perylene	100	100	1,000	2.84	D	0.0467	U	3.11	D	0.0471	U	0.395	D	0.0457	U
Benzo(k)Fluoranthene	0.8	3.9	1.7	**3**	D	0.0467	U	**4.03**	D	0.0471	U	0.472	D	0.0457	U
Biphenyl (Diphenyl)	~	~	~	0.0821	JD	0.0467	U	0.23	D	0.0471	U	0.0471	U	0.0457	U
Bis(2-Ethylhexyl) Phthalate	~	~	~	0.0828	J	0.0467	UJ	0.438	J	0.0471	UJ	0.0471	U	0.0457	U
Carbazole	~	~	~	1.13	D	0.0467	U	0.76	D	0.0471	U	0.112	D	0.0457	U
Chrysene	1	3.9	1	**7.3**	D	0.0467	U	**7.47**	D	0.0471	U	0.726	D	0.0457	U
Dibenz(a,h)Anthracene	0.33	0.33	1,000	**1.15**	D	0.0467	U	**1.35**	D	0.0471	U	0.146	D	0.0457	U
Dibenzofuran	7	59	210	0.619	D	0.0467	U	1.43	D	0.0471	U	0.0471	U	0.0457	U
Fluoranthene	100	100	1,000	16.4	D	0.0467	U	18.2	D	0.0471	U	1.84	D	0.0457	U
Fluorene	30	100	386	1.12	D	0.0467	U	2.74	D	0.0471	U	0.0563	JD	0.0457	U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	8.2	**4.92**	J	0.0467	UJ	**4.52**	J	0.0471	UJ	0.396	D	0.0457	U
Naphthalene	12	100	12	0.627	D	0.0467	U	1.26	D	0.0471	U	0.0471	U	0.0457	U
n-Nitrosodi-N-Propylamine	~	~	~	0.0481	U	0.0467	U	0.131	D	0.0471	U	0.0471	U	0.0457	U
Phenanthrene	100	100	1,000	11.2	D	0.0467	U	19.9	D	0.0471	U	1.08	D	0.0457	U
Pyrene	100	100	1,000	13.2	D	0.0467	U	13.2	D	0.0471	U	1.53	D	0.0457	U
Pesticides (mg/kg)															
4,4'-DDD	0.0033	13	14	**0.0142**	D	0.00184	U	**0.0453**	D	0.00186	U	0.00185	U	0.00181	U
4,4'-DDE	0.0033	8.9	17	**0.00678**	D	0.00184	U	**0.015**	D	0.00186	U	0.00185	U	0.00181	U
4,4'-DDT	0.0033	7.9	136	0.00191	U	0.00184	U	**0.00848**	DP	0.00186	U	0.00185	U	0.00181	U
Alpha Chlordane	0.094	4.2	2.9	0.00191	U	0.00184	U	0.00194	U	0.00186	U	0.00185	U	0.00181	U
Chlordane (alpha and gamma)	~	~	~	0.0382	U	0.0368	U	0.0387	U	0.0373	U	0.037	U	0.0362	U
Dieldrin	0.005	0.2	0.1	0.00191	U	0.00184	U	**0.00707**	D	0.00186	U	0.00185	U	0.00181	U
Gamma-Chlordane	~	~	~	0.00191	U	0.00184	U	0.00194	U	0.00186	U	0.00185	U	0.00181	U
Herbicides (mg/kg)	~	~	~	ND		ND		ND		ND		ND		ND	
Polychlorinated Biphenyls (mg/kg)															
PCB-1260 (Aroclor 1260)	~	~	~	0.0193	U	0.0186	U	0.0453		0.0188	U	0.0187	U	0.0183	U
Total PCBs	0.1	1	3.2	0.0193	U	0.0186	U	0.0453		0.0188	U	0.0187	U	0.0183	U
Inorganics (mg/kg)															
Aluminum	~	~	~	8,290		5,670		6,390		6,610		6,750		5,580	
Arsenic	13	16	16	6.92		1.68	U	5.28		1.7	U	4.66		1.66	U
Barium	350	400	820	**441**		41.7		**1,650**		31.1		**581**		33	
Cadmium	2.5	4.3	7.5	0.749		0.336	U	1.9		0.34	U	1.3		0.332	U
Calcium	~	~	~	8,500		1,600		35,600		1,990		2,870		1,340	
Chromium, Hexavalent	1	110	19	0.585	U	0.56	U	0.597	U	0.567	U	0.567	U	0.553	U
Chromium, Total	~	~	~	23.5		17.1		33.6		19.2		19.6		17	
Chromium, Trivalent	30	180	~	23.5		17.1		**33.6**		19.2		19.6		17	
Cobalt	~	~	~	7.22		9.33		5.2		7.79		7.28		7.75	
Copper	50	270	1,720	**85.5**		13.5		**88.6**		14.6		**68.4**		12.6	
Cyanide	27	27	40	17		0.56	U	0.597	U	0.567	U	0.567	U	0.553	U
Iron	~	~	~	23,500		27,200		19,300		20,500		23,400		22,600	
Lead	63	400	450	**646**		7.2		**1,500**		6.59		**632**		5.92	
Magnesium	~	~	~	3,330		1,890		5,370		2,780		1,740		2,140	
Manganese	1,600	2,000	2,000	189		632		262		249		371		332	
Mercury	0.18	0.81	0.73	**0.413**		0.0336	U	**0.663**		0.034	U	**0.264**		0.0332	U
Nickel	30	310	130	**30.9**		16.1		29.3		14.5		17.1		13.4	
Potassium	~	~	~	1,200		880		850		1,180		736		1,240	
Sodium	~	~	~	154		426		162		248		79.1		108	
Vanadium	~	~	~	37.8		30.2		55.3		29.8		29.7		26.4	
Zinc	109	10,000	2,480	**384**		32.1		**863**		27.8		**620**		29	
General Chemistry (%)															
Solids, Percent	~	~	~	85.5		89.3		83.8		88.2		88.2		90.3	

Notes provided on Page 3.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.
Concentrations above Protection of Groundwater SCOs are underlined.

Table 2A
Supplemental Remedial Investigation
Soil Sample Analytical Results Summary

1921 Atlantic Avenue
Brooklyn, New York
NYSDEC BCP Site No.: C224279
Langan Project No.: 100681201

Location Sample ID Laboratory ID Sample Date Sample Depth (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted-Residential SCOs	NYSDEC Part 375 Protection of Groundwater SCOs	LSB-4 006_LSB-4A_20200317 20C0787-06 3/17/2020 1-3		LSB-4 007_LSB-4B_20200317 20C0787-07 3/17/2020 16-18		LSB-5 004_LSB-5A_20200317 20C0787-04 3/17/2020 2-4		LSB-5 005_LSB-5B_20200317 20C0787-05 3/17/2020 20-22		LSB-6 001_LSB-6A_20200317 20C0787-01 3/17/2020 2-4		LSB-6 002_LSB-6B_20200317 20C0787-02 3/17/2020 16-18		LSB-6 003_DUP-1_20200317 20C0787-03 3/17/2020 16-18	
Volatile Organic Compounds (mg/kg)																	
Acetone	0.05	100	0.05	0.005	UJ	0.0036	UJ	0.0053	UJ	0.0037	UJ	0.0057	J	0.0038	UJ	0.0037	UJ
Bromoform	~	~	~	0.0025	R	0.0018	U	0.0027	R	0.0019	R	0.0025	R	0.0019	R	0.0018	R
Ethanol	~	~	~	0.058	J	0.029	U	0.1		0.062		0.082		0.055	J	0.057	J
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.12	0.0025	U	0.0018	UJ	0.0027	U	0.0019	U	0.0025	U	0.0019	U	0.0018	U
Naphthalene	12	100	12	0.0025	U	0.0018	U	0.0046	J	0.0019	U	0.0025	U	0.0019	U	0.0018	U
Semivolatile Organic Compounds (mg/kg)																	
2-Methylnaphthalene	~	~	~	0.0459	U	0.0458	U	2.32	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
3 & 4 Methylphenol (m&p Cresol)	0.33	100	~	0.0459	U	0.0458	U	0.0448	U	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Acenaphthene	20	100	98	0.0459	U	0.0458	U	7.68	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Acenaphthylene	100	100	107	0.0819	JD	0.0458	U	0.336	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Anthracene	100	100	1,000	0.206	D	0.0458	U	10.4	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Benzo(a)Anthracene	1	1	1	**2.35**	D	0.0458	U	**22**	D	0.0453	U	0.0801	JD	0.0454	U	0.0453	U
Benzo(a)Pyrene	1	1	22	**2.01**	D	0.0458	U	**14.1**	D	0.0453	U	0.0678	JD	0.0454	U	0.0453	U
Benzo(b)Fluoranthene	1	1	1.7	**1.94**	D	0.0458	U	**10.9**	D	0.0453	U	0.0649	JD	0.0454	U	0.0453	U
Benzo(g,h,i)Perylene	100	100	1,000	1.24	D	0.0458	U	6.91	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Benzo(k)Fluoranthene	0.8	3.9	1.7	**1.66**	D	0.0458	U	**8.99**	D	0.0453	U	0.0649	JD	0.0454	U	0.0453	U
Biphenyl (Diphenyl)	~	~	~	0.0459	U	0.0458	U	0.325	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Bis(2-Ethylhexyl) Phthalate	~	~	~	0.0459	U	0.0458	U	1.14	J	0.0453	UJ	0.0452	UJ	0.0454	UJ	0.0453	UJ
Carbazole	~	~	~	0.0615	JD	0.0458	U	1.17	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Chrysene	1	3.9	1	**1.99**	D	0.0458	U	**25.5**	D	0.0453	U	0.0844	JD	0.0454	U	0.0453	U
Dibenz(a,h)Anthracene	0.33	0.33	1,000	**0.488**	D	0.0458	U	**3.03**	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Dibenzofuran	7	59	210	0.0459	U	0.0458	U	0.746	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Fluoranthene	100	100	1,000	3.09	D	0.0458	U	34.9	D	0.0881	JD	0.171	D	0.0454	U	0.0453	U
Fluorene	30	100	386	0.0459	U	0.0458	U	4.89	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	8.2	**1.29**	D	0.0458	U	**5.28**	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Naphthalene	12	100	12	0.0459	U	0.0458	U	0.874	D	0.0453	U	0.0452	U	0.0454	U	0.0453	U
n-Nitrosodi-N-Propylamine	~	~	~	0.0459	U	0.0458	U	0.0448	U	0.0453	U	0.0452	U	0.0454	U	0.0453	U
Phenanthrene	100	100	1,000	0.358	D	0.0458	U	52.1	D	0.123	D	0.105	D	0.0454	U	0.0453	U
Pyrene	100	100	1,000	2.81	D	0.0458	U	50.9	D	0.122	D	0.157	D	0.0454	U	0.0453	U
Pesticides (mg/kg)																	
4,4'-DDD	0.0033	13	14	0.00179	U	0.00179	U	**0.00422**	J	0.00179	U	0.00183	U	0.00177	U	0.00178	U
4,4'-DDE	0.0033	8.9	17	0.00179	U	0.00179	U	0.00179	UJ	0.00179	U	0.00183	U	0.00177	U	0.00178	U
4,4'-DDT	0.0033	7.9	136	0.00179	U	0.00179	U	**0.0483**	J	0.00179	U	0.00183	U	0.00177	U	0.00178	U
Alpha Chlordane	0.094	4.2	2.9	0.00179	U	0.00179	U	0.0128	J	0.00179	U	0.00183	U	0.00177	U	0.00178	U
Chlordane (alpha and gamma)	~	~	~	0.0357	U	0.0357	U	0.068	D	0.0357	U	0.0367	U	0.0355	U	0.0355	U
Dieldrin	0.005	0.2	0.1	0.00179	U	0.00179	U	0.00179	UJ	0.00179	U	0.00183	U	0.00177	U	0.00178	U
Gamma-Chlordane	~	~	~	0.00179	U	0.00179	U	0.00892	J	0.00179	U	0.00183	U	0.00177	U	0.00178	U
Herbicides (mg/kg)	~	~	~	ND		ND		ND		ND		ND		ND		ND	
Polychlorinated Biphenyls (mg/kg)																	
PCB-1260 (Aroclor 1260)	~	~	~	0.018	U	0.018	U	0.0181	U	0.018	U	0.0185	U	0.0179	U	0.0179	U
Total PCBs	0.1	1	3.2	0.018	U	0.018	U	0.0181	U	0.018	U	0.0185	U	0.0179	U	0.0179	U
Inorganics (mg/kg)																	
Aluminum	~	~	~	7,650		5,190		4,270		7,240	J	6,670		5,540	J	8,520	J
Arsenic	13	16	16	1.65	U	1.65	U	1.64	U	1.65	U	1.67	U	1.64	U	1.64	U
Barium	350	400	820	54.8		26		36.3		34.9	J	43.1		25.8	J	43.6	J
Cadmium	2.5	4.3	7.5	0.33	U	0.33	U	0.328	U	0.33	U	0.334	U	0.329	U	0.328	U
Calcium	~	~	~	1,080		1,410		6,470		2,700	J	1,700		1,750	J	2,340	J
Chromium, Hexavalent	1	110	19	0.551	U	0.55	U	0.547	U	**1.19**		0.557	U	0.548	U	0.547	U
Chromium, Total	~	~	~	28.4		17		11		20.8	J	17.8		14.8	J	19.8	J
Chromium, Trivalent	30	180	~	28.4		17		11		19.6		17.8		14.8	J	19.8	J
Cobalt	~	~	~	7.77		8.03		5.29		9.2	J	8.56		10.3	J	9.8	J
Copper	50	270	1,720	14.6		13.4		11.3		25.4	J	14.2		12.5		14.6	
Cyanide	27	27	40	1.77		0.55	U	0.547	U	0.551	UJ	0.557	U	0.548	U	0.547	U
Iron	~	~	~	28,000		32,200		13,000		23,800	J	23,700		46,600	J	24,500	J
Lead	63	400	450	10.1		6.95		47.8		7.72	J	7.75		6.5		6.6	
Magnesium	~	~	~	1,680		1,720		2,010		3,560	J	2,430		3,350	J	4,740	J
Manganese	1,600	2,000	2,000	595		368		359		292	J	521		810	J	419	J
Mercury	0.18	0.81	0.73	**0.638**		0.033	U	0.0728		0.033	U	0.0334	U	0.0329	U	0.0328	U
Nickel	30	310	130	11.9		13.2		9.41		14.8	J	14.8		14	J	22	J
Potassium	~	~	~	702		843		408		1,770	J	1,230		913	J	2,240	J
Sodium	~	~	~	71.5		163		62.9		390	J	151		159	J	549	J
Vanadium	~	~	~	38.7		35.3		19.2		39.4	J	27.4		25.1	J	33	J
Zinc	109	10,000	2,480	34.3		28.9		102		32.9	J	28		33.3	J	27.5	J
General Chemistry (%)																	
Solids, Percent	~	~	~	90.8		90.9		91.4		90.8		89.7		91.2		91.3	

Notes provided on Page 3.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.
Concentrations above Protection of Groundwater SCOs are underlined.

Table 2A
Supplemental Remedial Investigation
Soil Sample Analytical Results Summary

1921 Atlantic Avenue
Brooklyn, New York
NYSDEC BCP Site No.: C224279
Langan Project No.: 100681201

Notes:

1. Soil sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use, Restricted Use Restricted-Residential and Protection of Groundwater Soil Cleanup Objectives (SCO).
2. Only detected analytes are shown in the table.
3. Detected analytical results above Unrestricted Use SCOs are bolded.
4. Detected analytical results above Restricted Use Restricted-Residential SCOs are shaded.
5. Detected analytical results above Protection of Groundwater SCOs are underlined.
6. Analytical results with reporting limits (RL) above the lowest applicable criteria are italicized.
7. Sample 003_DUP-1_20200317 is a duplicate sample of 002_LSB-6B_20200317.
8. ~ = Regulatory limit for this analyte does not exist
9. bgs = below grade surface
10. mg/kg = milligrams per kilogram
11. % = percent
12. ND = Not detected

Qualifiers:

D = The concentration reported is a result of a diluted sample.
P = The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.
R – The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ – The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Table 3A
Supplemental Remedial Investigation
Groundwater Sample Analytical Results Summary

1921 Atlantic Avenue
Brooklyn, New York
NYSDEC BCP Site No.: C224279
Langan Project No.: 100681201

Location	NYSDEC	LMW-1		LMW-1		LMW-2		MW-002		MW-003		MW-004	
Sample ID	SGVs	029_LMW-1_20200322		034_DUP-1_20200322		030_LMW-2_20200322		031_MW-002_20200322		032_MW-003_20200322		033_MW-004_20200322	
Laboratory ID		20C0964-01		20C0964-06		20C0964-02		20C0964-03		20C0964-04		20C0964-05	
Sample Date		3/22/2020		3/22/2020		3/22/2020		3/22/2020		3/22/2020		3/22/2020	
Volatile Organic Compounds (µg/L)													
Acrolein	5	0.2	R	0.2	R	0.2	R	0.2	R	0.2	R	0.2	R
Chloroform	7	0.7		0.65		0.49	J	0.78		1.18		0.22	J
Methyl Ethyl Ketone (2-Butanone)	50	0.78		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Tert-Butyl Alcohol	~	1.7	J	3.69	J	0.5	U	0.5	U	0.5	U	0.5	U
Semivolatile Organic Compounds (µg/L)													
Benzo(a)Pyrene	0	*0.05*	U	*0.0526*	U	*0.0541*	U	*0.0526*	U	*0.0526*	R	*0.0556*	U
Benzo(b)Fluoranthene	0.002	*0.05*	U	*0.0526*	U	*0.0541*	U	*0.0526*	U	*0.0526*	R	*0.0556*	U
Benzo(g,h,i)Perylene	~	0.05	U	0.0526	U	0.0541	U	0.0526	U	0.0526	R	0.0556	U
Benzo(k)Fluoranthene	0.002	*0.05*	U	*0.0526*	U	*0.0541*	U	*0.0526*	U	*0.0526*	R	*0.0556*	U
Bis(2-Ethylhexyl) Phthalate	5	0.5	U	0.526	U	0.649		0.526	U	0.526	U	0.556	U
Caprolactam	~	16.1	J	6.81	J	9.55		8.55		2.63	U	5.48	J
Dibenz(a,h)Anthracene	~	0.05	U	0.0526	U	0.0541	U	0.0526	U	0.0526	R	0.0556	U
Fluorene	50	0.05	U	0.0526	U	0.0541	U	0.0526	U	0.211		0.0556	U
Indeno(1,2,3-c,d)Pyrene	0.002	*0.05*	U	*0.0526*	U	*0.0541*	U	*0.0526*	U	*0.0526*	R	*0.0556*	U
Naphthalene	10	0.05		0.0526	U	0.0541	U	0.0526	U	0.0526	U	0.0556	U
Pesticides (µg/L)	~	ND		ND		ND		ND		ND		ND	
Herbicides (µg/L)	~	ND		ND		ND		ND		ND		ND	
Polychlorinated Biphenyls (µg/L)	~	ND		ND		ND		ND		ND		ND	
Inorganics (µg/L)													
Aluminum	~	149		151		1,270		10,700		165		484	
Aluminum (Dissolved)	~	59		89.8		97.9		55.6	U	104		161	
Arsenic	25	1.11	U	1.11	U	1.17		5.69		1.11	U	1.11	U
Barium	1,000	58.9		65.2		73.6		260		51.6		111	
Barium (Dissolved)	1,000	62.6		61.7		46.1		66.6		51		103	
Calcium	~	80,800	B	86,700	B	49,400	B	99,400	B	98,100	B	168,000	B
Calcium (Dissolved)	~	81,200		84,000		49,900		82,100		102,000		178,000	
Chromium, Total	50	5.56	U	5.56	U	6.73		**117**		5.56	U	5.56	U
Chromium, Trivalent	~	10	U	10	U	10	U	117		10	U	10	U
Cobalt	~	4.44	U	4.44	U	4.44	U	27.8		4.44	U	4.44	U
Copper	200	22.2	U	22.2	U	22.2	U	61.3		22.2	U	22.2	U
Cyanide	200	10	UJ	10	UJ	10	UJ	13.7	J	10	UJ	10	UJ
Iron	300	278	U	278	U	**2,910**		**31,400**		278	U	**1,330**	
Iron (Dissolved)	300	278	U	278	U	284		278	U	278	U	278	U
Lead	25	5.56	U	5.56	U	5.56	U	**41.5**		5.56	U	5.56	U
Magnesium	35,000	25,500		28,000		19,600		**50,900**		**46,300**		**74,900**	
Magnesium (Dissolved)	35,000	25,400		27,300		19,300		**40,700**		**47,600**		**81,000**	
Manganese	300	**312**		**318**		242		**1,490**		12.6		54.8	
Manganese (Dissolved)	300	**315**		**310**		152		9.14		5.56	U	8.79	
Mercury	0.7	0.31		0.2	U	0.2	U	0.2	U	0.2		0.2	U
Mercury (Dissolved)	0.7	0.2	U	0.2	U	0.3084		0.2	U	0.2	U	0.2	U
Nickel	100	11.1	U	11.1	U	11.1	U	76.1		11.1	U	11.1	U
Potassium	~	6,800		7,000		4,710		6,460		3,350		3,930	
Potassium (Dissolved)	~	6,820		6,880		4,340		3,350		3,340		4,060	
Selenium	10	1.6		1.11	U	1.11	U	2.96		3.56		1.11	U
Selenium (Dissolved)	10	1.19		1.11	U	1.42		2.67		3.14		1.81	
Sodium	20,000	**118,000**		**126,000**		**170,000**		**161,000**		**254,000**		**191,000**	
Sodium (Dissolved)	20,000	**119,000**		**121,000**		**170,000**		**154,000**		**255,000**		**196,000**	
Vanadium	~	11.1	U	11.1	U	11.1	U	35		11.1	U	11.1	U
Zinc	2,000	27.8	U	27.8	U	27.8	U	257		27.8	U	27.8	U
Zinc (Dissolved)	2,000	27.8	U	27.8	U	28.8		31.7		27.8	U	27.8	U

Notes:
1. Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (herein collectively referenced as "NYSDEC SGVs").
2. Only detected analytes are shown in the table.
3. Detected analytical results above NYSDEC SGVs are bolded and shaded.
4. Analytical results with reporting limits (RL) above NYSDEC SGVs are italicized.
5. Sample 034_DUP-1_20200322 is a duplicate sample of 029_LMW-1_20200322.
6. ~ = Regulatory limit for this analyte does not exist
7. ug/l = micrograms per liter
8. ND = Not detected

Qualifiers:
B = The analyte was found in the associated analysis batch blank.
R – The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ – The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Table 3B
Supplemental Remedial Investigation
Groundwater Sample Analytical Results Summary - Emerging Contaminants

1921 Atlantic Avenue
Brooklyn, New York
NYSDEC BCP Site No.: C224279
Langan Project No.: 100681201

Location	LMW-1		LMW-1		LMW-2		MW-002		MW-003		MW-004	
Sample ID	029_LMW-1_20200322		034_DUP-1_20200322		030_LMW-2_20200322		031_MW-002_20200322		032_MW-003_20200322		033_MW-004_20200322	
Laboratory ID	20C0964-01		20C0964-06		20C0964-02		20C0964-03		20C0964-04		20C0964-05	
Sample Date	3/22/2020		3/22/2020		3/22/2020		3/22/2020		3/22/2020		3/22/2020	
Semivolatile Organic Compounds (ng/L)												
1,4-Dioxane (P-Dioxane)	667	U	667	U	2000	U	200	U	200	U	200	U
Per and Polyfluoroalkyl Substances (ng/L)												
N-ethyl perfluorooctane- sulfonamidoacetic acid (NEtFOSAA)	1.11	U	1.11	U	0.557	U	0.557	U	2.1		0.557	U
N-methyl perfluorooctane- sulfonamidoacetic acid (NMeFOSAA)	1.06	UJ	1.06	UJ	0.529	UJ	0.529	UJ	2.22	J	0.529	UJ
Perfluorobutanesulfonic Acid (PFBS)	6.7	D	6.94	D	14.4		19.1		14.9		4.35	
Perfluorodecanoic acid (PFDA)	1.05	U	1.05	U	0.524	U	0.524	U	0.788	J	0.524	U
Perfluoroheptanesulfonic acid (PFHpS)	0.83	U	0.83	U	0.415	U	0.415	U	0.913	J	0.415	U
Perfluoroheptanoic acid (PFHpA)	25.4	D	24.9	D	16.9		12.2		19.6		16.1	
Perfluorohexanesulfonic Acid (PFHxS)	8.34	D	8.29	D	6.12		9.05		15.4		4.97	
Perfluorohexanoic Acid (PFHxA)	19	D	19.7	D	19		14.3		21		17.4	
Perfluorononanoic Acid (PFNA)	1.15	U	1.15	U	0.574	U	1.75	J	2.43		0.574	U
Perfluorooctanesulfonic acid (PFOS)	4.63	U	4.61	U	3.54	U	11.5		7.99	U	2.07	U
Perfluorooctanoic Acid (PFOA)	43.9	D	44.6	D	47.9		36.5		48.9		34.8	
Perfluoropentanoic Acid (PFPeA)	19.6	D	19.6	D	25.6		15.2		19.4		19.2	
Perfluorotetradecanoic Acid (PFTA)	1.06	U	1.06	U	0.531	UJ	0.531	U	0.676	J	0.531	U
Perfluoroundecanoic Acid (PFUnA)	1.31	U	1.31	U	0.657	U	0.657	U	0.866	J	0.657	U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2) (6:2FTS)	2.26	J	2.14	J	0.492	UJ	0.492	UJ	0.492	UJ	0.515	J

Notes:
1. Only detected analytes are shown in the table.
2. Sample 034_DUP-1_20200322 is a duplicate sample of 029_LMW-1_20200322.
3. ng/l = nanograms per liter
4. ND = Not detected

Qualifiers:
D = The concentration reported is a result of a diluted sample.
J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ – The analyte was not detected at a level greater than or equal to the reporting limit (RL); however, the reported RL is approximate and may be inaccurate or imprecise.
U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Table 4
Supplemental Remedial Investigation
Soil Vapor Sample Analytical Results Summary

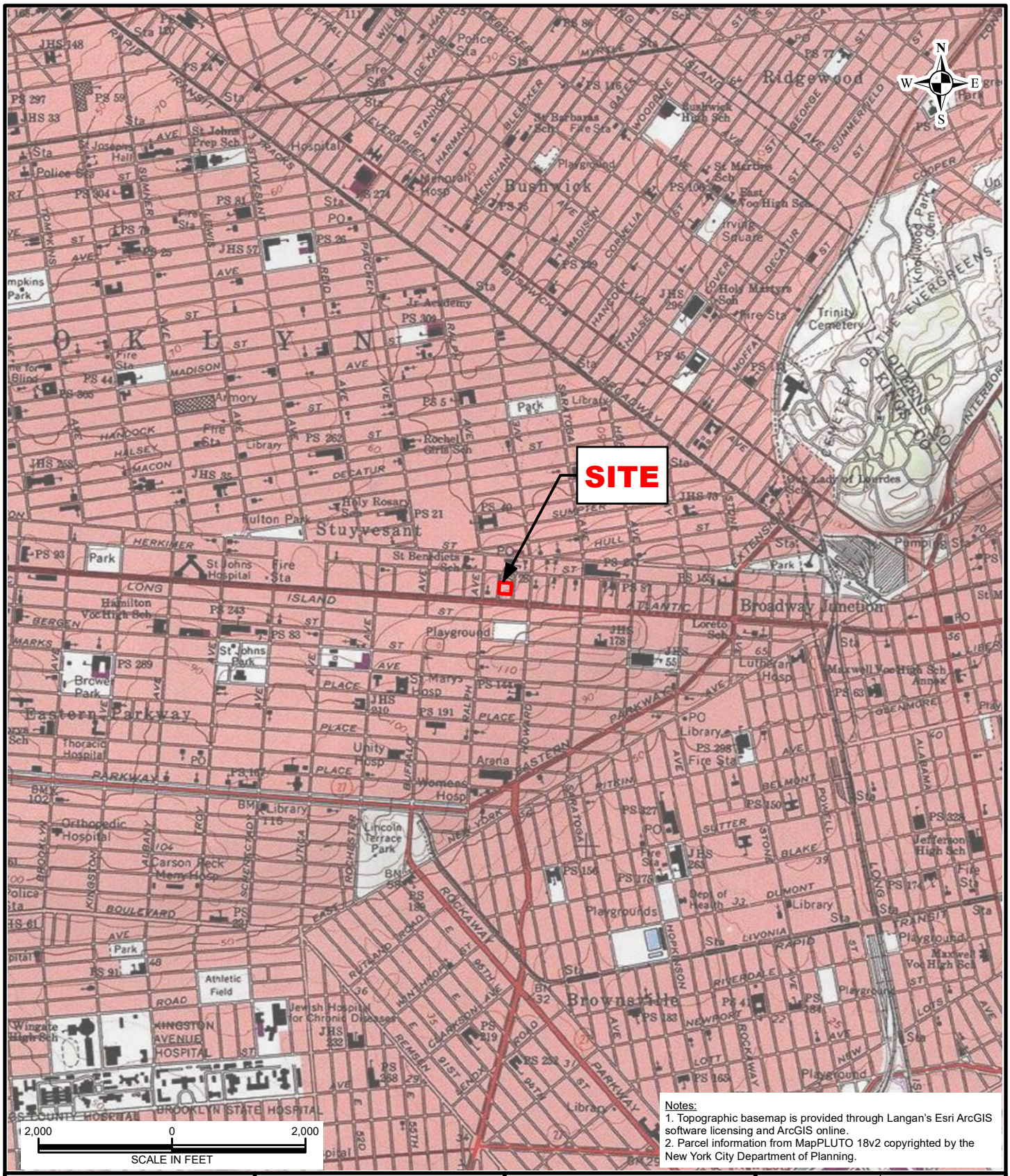
1921 Atlantic Avenue
Brooklyn, New York
NYSDEC BCP Site No.: C224279
Langan Project No.: 100681201

Location Sample ID Laboratory ID Sample Date Sample Type	NYSDOH Decision Matrices Minimum Concentrations	AMBIENT-1 028_AMBIENT-1 20C0947-10 3/20/2020 AA		LSV-1 019_LSV-1 20C0947-01 3/20/2020 SV		LSV-1 020_DUP-1 20C0947-02 3/20/2020 SV		LSV-2 021_LSV-2 20C0947-03 3/20/2020 SV		LSV-3 022_LSV-3 20C0947-04 3/20/2020 SV		LSV-4 023_LSV-4 20C0947-05 3/20/2020 SV		LSV-5 024_LSV-5 20C0947-06 3/20/2020 SV		LSV-6 025_LSV-6 20C0947-07 3/20/2020 SV		LSV-7 026_LSV-7 20C0947-08 3/20/2020 SV		LSV-8 027_LSV-8 20C0947-09 3/20/2020 SV	
Volatile Organic Compounds (µg/m³)																					
1,1,1-Trichloroethane	100	0.544	U	0.836	U	0.846	U	0.803	U	0.763	U	0.945	D	0.878	U	0.792	U	0.838	U	0.872	U
1,2,4-Trimethylbenzene	~	0.686	D	48	J	97	J	20.5	D	51.9	D	54.7	D	54.8	D	58.2	D	49.9	D	19.2	D
1,3,5-Trimethylbenzene (Mesitylene)	~	0.49	U	40.8	J	74.4	J	6.58	D	14.9	D	40.5	D	15.3	D	17.1	D	13.6	D	5.03	D
1,3-Butadiene	~	0.662	U	1.02	U	1.03	U	2.05	D	0.928	U	0.958	U	1.07	U	0.964	U	1.02	U	1.06	U
2-Hexanone	~	0.817	U	1.26	UJ	3.43	J	1.21	U	2.75	D	2.48	D	4.81	D	4.04	D	3.4	D	3.34	D
4-Ethyltoluene	~	0.637	D	43.5	J	87.6	J	17.4	D	32.4	D	37.8	D	35.6	D	38.8	D	30.6	D	16	D
Acetone	~	6.44	D	51.5	J	67.9	J	104	D	48.8	D	59.9	D	169	D	45.6	D	60.2	D	73.8	D
Benzene	~	1.11	D	132	J	162	J	22.5	D	1.97	D	22.6	D	1.39	D	2.32	D	5.2	D	1.28	D
Bromodichloromethane	~	0.668	U	1.03	U	1.04	U	0.985	U	5.34	D	0.967	U	1.08	U	0.973	U	1.03	U	1.07	U
Carbon Disulfide	~	0.31	U	4.53	J	5.74	J	108	D	0.958	D	1.89	D	5.01	D	3.21	D	2.01	D	1.1	D
Carbon Tetrachloride	6	0.502	D	0.241	U	0.244	U	0.231	U	0.528	D	0.454	D	0.253	U	0.457	D	0.386	D	0.402	D
Chloroethane	~	0.263	U	3.11	J	3.93	J	0.388	U	0.369	U	0.381	U	0.425	U	0.383	U	0.405	U	0.422	U
Chloroform	~	0.487	U	0.748	U	0.757	U	0.718	U	127	D	0.846	D	1.73	D	1.99	D	2.4	D	0.781	U
Chloromethane	~	1.24	D	0.316	U	0.32	U	0.516	D	0.289	U	0.895	D	0.332	U	0.3	U	0.317	U	0.759	D
Cyclohexane	~	0.377	D	2.37	D	2.83	D	118	D	1.25	D	1.39	D	0.776	D	1.05	D	1.06	D	0.605	D
Dichlorodifluoromethane	~	1.73	D	1.97	D	2.22	D	9.24	D	2.28	D	2.14	D	2.31	D	2.08	D	2.2	D	2.37	D
Ethyl Acetate	~	0.718	U	1.1	U	1.12	U	1.06	U	1.01	U	1.04	U	1.16	U	1.05	U	1.11	U	1.67	D
Ethylbenzene	~	0.693	D	79.6	J	116	J	27	D	68.6	D	56.7	D	13.6	D	12.5	D	37.6	D	14.9	D
Isopropanol	~	5.66	D	17.1	J	8.69	J	6.76	D	0.756	D	3.44	D	1.23	D	1.82	D	0.755	U	36.8	D
M,P-Xylene	~	2.08	D	144	J	212	J	45.8	D	34	D	154	D	33.8	D	41.1	D	31.3	D	60.7	D
Methyl Ethyl Ketone (2-Butanone)	~	0.97	D	13.4	J	18	J	41	D	11.8	D	12.6	D	24.2	D	12.8	D	13.8	D	14.6	D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	~	0.408	U	0.628	U	0.635	U	0.603	U	0.573	U	0.592	U	0.989	D	0.595	U	0.629	U	0.786	D
Methyl Methacrylate	~	0.816	D	0.627	U	0.635	U	0.602	U	0.572	U	0.591	U	0.659	U	0.892	D	4.78	D	37.6	D
Methylene Chloride	100	4.47	D	1.44	D	1.29	D	1.02	U	2.62	D	1.25	D	1.29	D	2.07	D	1.12	D	1.28	D
n-Heptane	~	0.654	D	32.4	J	48.9	J	155	D	40.1	D	29.1	D	39.8	D	40.1	D	35.9	D	3.6	D
n-Hexane	~	1.12	D	14.1	J	17.7	J	395	D	3.2	D	3.46	D	2.61	D	3.22	D	2.54	D	3.33	D
o-Xylene (1,2-Dimethylbenzene)	~	0.779	D	76.7	J	115	J	20.6	D	15	D	80.4	D	16.1	D	17.8	D	13.9	D	21	D
Styrene	~	0.425	U	8.81	J	13.1	J	3.07	D	0.596	D	9.35	D	0.892	D	1.05	D	0.981	D	3	D
Tetrachloroethene (PCE)	100	20.2	J	6.44	J	3.99	J	24.7	D	17.4	D	17.3	D	4.15	D	7.98	D	23.8	D	34.6	D
Tetrahydrofuran	~	0.588	U	1.08	D	1.1	D	0.868	U	0.825	U	0.852	D	1.09	D	0.985	D	1.04	D	0.943	U
Toluene	~	2.93	D	166	J	215	J	24.3	D	19.1	D	86	D	17.9	D	20.5	D	16.1	D	22.5	D
Trichloroethene (TCE)	6	0.268	D	0.206	U	0.208	U	0.198	U	0.188	U	0.194	U	0.216	U	0.312	D	0.206	U	0.215	U
Trichlorofluoromethane	~	1.34	D	1.89	D	2	D	0.909	D	1.57	D	1.54	D	1.45	D	1.47	D	1.38	D	1.89	D
Vinyl Chloride	6	0.0637	U	0.0979	U	0.0991	U	1.65	D	0.0893	U	0.0923	U	0.103	U	0.0928	U	0.0981	U	0.102	U

Notes:
1. Soil vapor sample analytical results are compared to the minimum soil vapor concentrations recommending mitigation as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).
2. Ambient air sample analytical results are shown for reference only.
3. Only detected analytes are shown in the table.
4. Detected analytical results above the minimum soil vapor concentrations recommending mitigation are bolded and shaded.
5. Analytical results with reporting limits (RL) above the minimum soil vapor concentrations recommending mitigation are italicized.
6. Sample 020_DUP-1 is a duplicate of parent sample 019_LSV-1.
7. ~ = Regulatory limit for this analyte does not exist
8. ug/m3= micrograms per cubic meter
9. AA = Ambient Air
10. SV = Soil Vapor

Qualifiers:
D – The concentration reported is a result of a diluted sample.
J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ – The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

FIGURES



Notes:
1. Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online.
2. Parcel information from MapPLUTO 18v2 copyrighted by the New York City Department of Planning.

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1921 ATLANTIC AVENUE

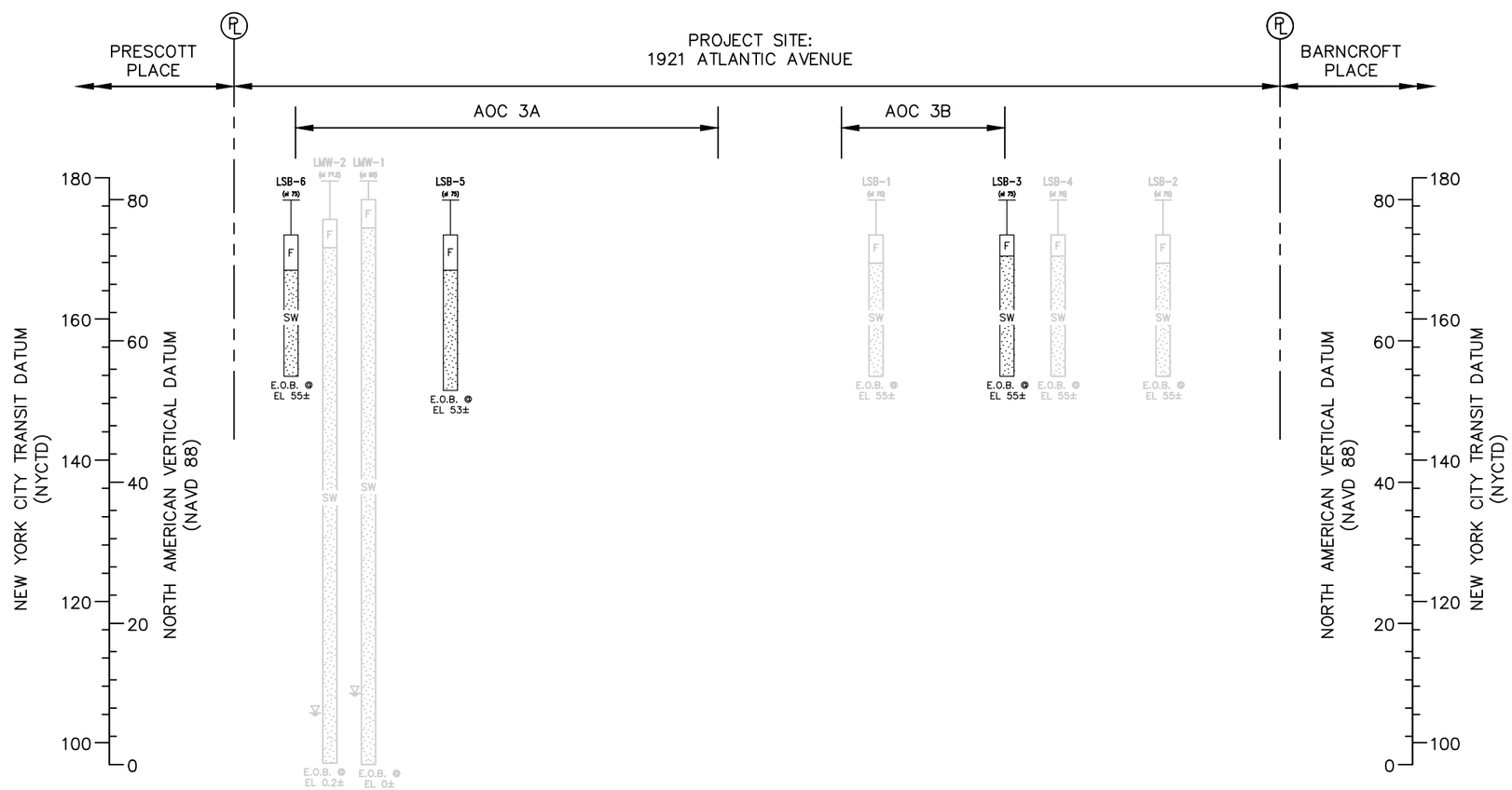
BLOCK No. 1557, LOT Nos. 1, 2, 3, 4, 23, 26, 28, 31, 32, 33, 34, 35, 36, 37 & 38

BROOKLYN NEW YORK

Drawing Title
SITE LOCATION MAP

Project No. 100681201	Figure 1
Date 8/28/2019	
Scale 1"=2,000'	
Drawn By ATR	
Last Revised 11/12/2019	

Path: \\Langan.com\data\PAR\data2\100681201\Project Data\ArcGIS\MXD\Environmental_Figures\2019-09 RAP\Figure 1 - Site Location Map.mxd Date: 11/12/2019 User: ibaker Time: 9:35:12 AM



SECTION A - A'
SCALE: 1" = 20'

SITE MAP
SCALE: 1" = 100'

100 0 50 100
SCALE IN FEET

LEGEND

- 1921 ATLANTIC AVENUE SITE BOUNDARY
- LANGAN SOIL BORING SAMPLE LOCATION
- LANGAN MONITORING WELL LOCATION
- LANGAN SOIL VAPOR SAMPLE LOCATION
- LANGAN AMBIENT AIR SAMPLE LOCATION

NOTE

1. BASEMAP IS REFERENCED FROM A DRAWING TITLED "PROPOSED SAMPLE LOCATION PLAN", PREPARED BY LANGAN, DATED MARCH 31, 2020.
2. SUBSURFACE PROFILES WERE GENERATED BASED ON THE BORING LOGS COLLECTED DURING THE SEPTEMBER 2019 REMEDIAL INVESTIGATION.
3. ELEVATIONS FOR BORINGS NOT COLLOCATED TO A GROUNDWATER MONITORING WELL ARE ESTIMATED.
4. F = FILL MATERIAL
5. SW = SAND

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

20 0 5 10 20
SCALE IN FEET

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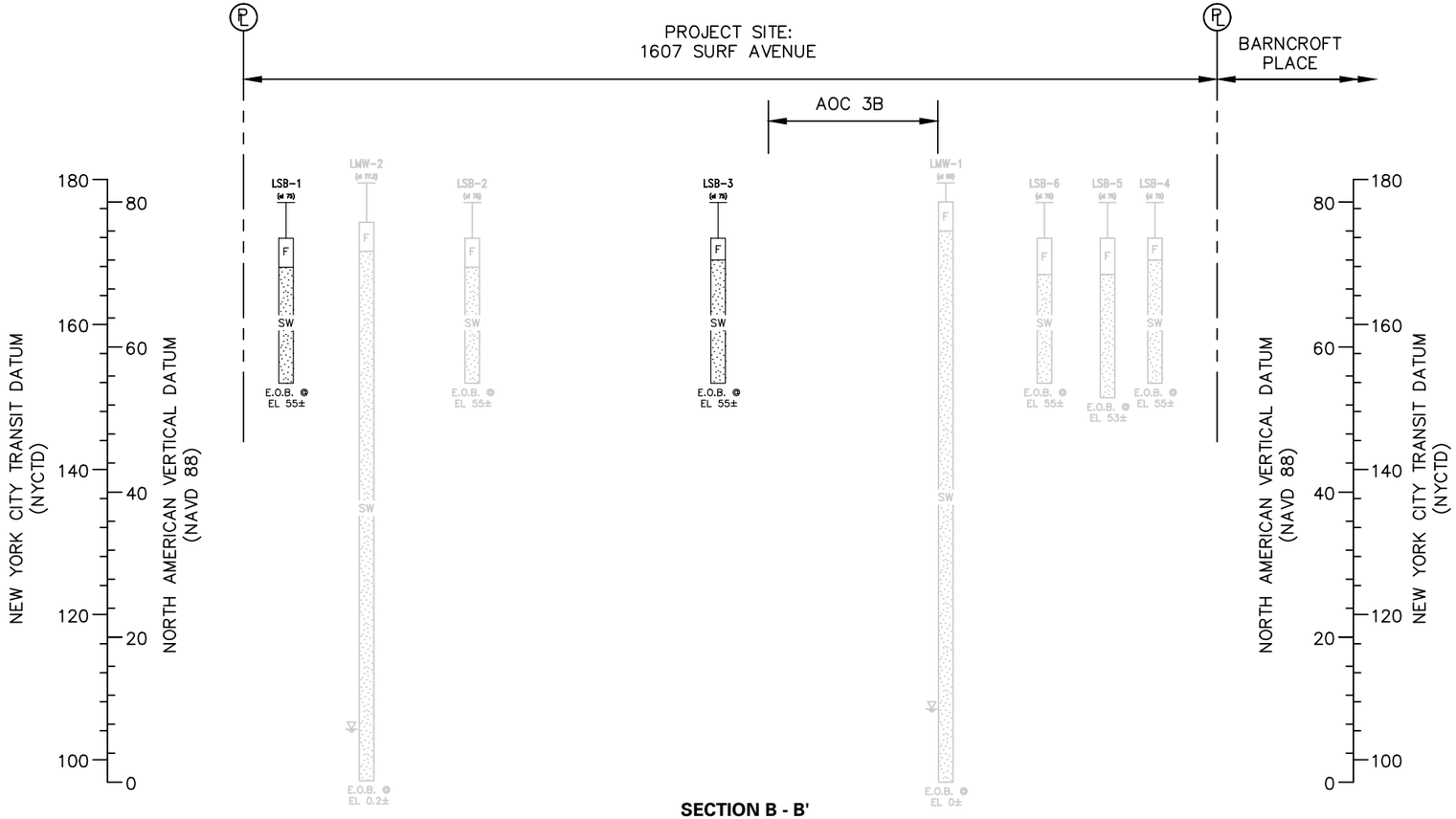
T: 212.479.5400 F: 212.479.5444 www.langan.com

Project	1921 ATLANTIC AVENUE BLOCK No. 1557, LOT Nos. 1, 2, 3, 4, 23, 26, 28, 31, 32, 33, 34, 35, 36, 37, 38 BROOKLYN NEW YORK
Drawing Title	SUBSURFACE PROFILE A-A'
Project No.	100681201
Date	04/01/2020
Drawn By	AC
Checked By	AK
Drawing No.	2A

Filename: \\langan.com\data\PAR\data2\100681201\Project Data\CAD\01\SheetFiles\Environmental\100681201-NI201-0101.dwg Date: 4/2/2020 Time: 09:08 User: acofrancesco Style Table: Langan.stb Layout: A-A



SECTION B - B'
SCALE: 1" = 20'

SITE MAP
SCALE: 1" = 60'

60 0 20 40 60
SCALE IN FEET

LEGEND

- 1921 ATLANTIC AVENUE SITE BOUNDARY
- LANGAN SOIL BORING SAMPLE LOCATION
- LANGAN MONITORING WELL LOCATION
- LANGAN SOIL VAPOR SAMPLE LOCATION
- LANGAN AMBIENT AIR SAMPLE LOCATION

NOTE

1. BASEMAP IS REFERENCED FROM A DRAWING TITLED "PROPOSED SAMPLE LOCATION PLAN", PREPARED BY LANGAN, DATED MARCH 31, 2020.
2. SUBSURFACE PROFILES WERE GENERATED BASED ON THE BORING LOGS COLLECTED DURING THE SEPTEMBER 2019 REMEDIAL INVESTIGATION.
3. ELEVATIONS FOR BORINGS NOT COLLOCATED TO A GROUNDWATER MONITORING WELL ARE ESTIMATED.
4. F = FILL MATERIAL
5. SW = SAND

20 0 5 10 20
SCALE IN FEET

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Project	1921 ATLANTIC AVENUE BLOCK No. 1557, LOT Nos. 1, 2, 3, 4, 23, 26, 28, 31, 32, 33, 34, 35, 36, 37, 38 BROOKLYN NEW YORK
Drawing Title	SUBSURFACE PROFILE B-B'
Project No.	100681201
Date	04/01/2020
Drawn By	AC
Checked By	AK
Drawing No.	2B

Filename: \\langan.com\data\PAR\data2\100681201\Project Data\CAD\01\SheetFiles\Environmental\100681201-NI201-0101.dwg Date: 4/2/2020 Time: 09:07 User: acofrancesco Style Table: Langan.stb Layout: B-B

Legend

- Site Boundary
- Groundwater Contours
- Groundwater Flow Direction

LMW-2
El: 6.76 ft.

MW-001

MW-002
El: 9.12 ft.

MW-003
El: 9.96 ft.

LMW-1
El: 8.69 ft.

MW-004
El: 10.23 ft.

7
7.2
7.4
7.6
7.8
8
8.2
8.4
8.6
8.8
9
9.2
9.4
9.6
9.8
10
10.2

Prescott Place

Barncroft Place

Atlantic Avenue

N
W
E
S

Notes:
1. Parcel information from MapPLUTO 18v2 copyrighted by the New York City Department of Planning.
2. Aerial imagery from Langan's subscription to Nearmap ltd., collected October 26, 2018.
3. The site boundary shown corresponds to tax map metes and bounds as well as the description of the real property described in the 26 November 2018 Brownfield Cleanup Agreement (Site No. C224279).
4. Monitoring well MW-001, previously installed by P.W. Grosser, was determined to be damaged upon inspection and was replaced with LMW-2 during the SRI. Groundwater elevations could not be determined from this location.
5. All elevations are referenced to the North American Vertical Datum of 1988 (NAVD88).

30 0 30
SCALE IN FEET

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Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1921 ATLANTIC AVENUE

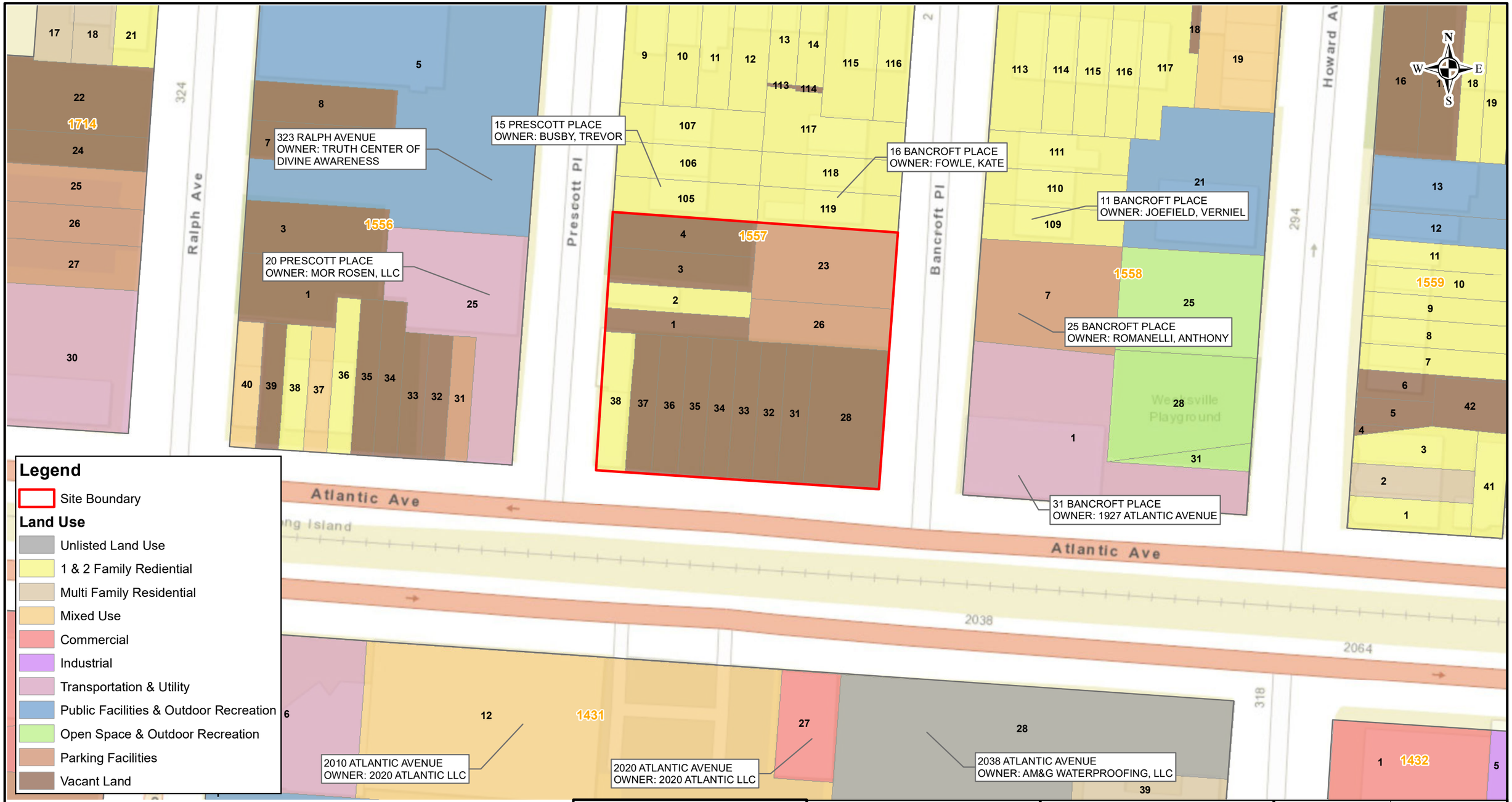
BLOCK No. 1557, LOT Nos. 1, 2, 3, 4, 23, 26, 28, 31, 32, 33, 34, 35, 36, 37 & 38

BROOKLYN NEW YORK

Drawing Title
POTENTIOMETRIC SURFACE MAP

Project No.	100681201
Date	4/3/2020
Scale	1 " = 30 '
Drawn By	IHB
Figure	3

Path: \\Langan.com\data\PAR\data2\100681201\Project Data\ArcGIS\MXD\Environmental_Figures\2020-03 - RIR\Figure 3 - Potentiometric Surface Map.mxd Date: 4/3/2020 User: jrosol Time: 2:49:53 PM



Legend

- Site Boundary

Land Use

- Unlisted Land Use
- 1 & 2 Family Rediential
- Multi Family Residential
- Mixed Use
- Commercial
- Industrial
- Transportation & Utility
- Public Facilities & Outdoor Recreation
- Open Space & Outdoor Recreation
- Parking Facilities
- Vacant Land

Notes:
1. Parcel information from MapPLUTO 18v2 copyrighted by the New York City Department of Planning.
2. World streets basemap is provided through Langan's subscription to Esri's ArcGIS software licensing.
3. The site boundary shown corresponds to tax map metes and bounds as well as the description of the real property described in the 26 November 2018 Brownfield Cleanup Agreement (Site No. C224279).

60 0 60
SCALE IN FEET

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1921 ATLANTIC AVENUE

BLOCK No. 1557, LOT Nos. 1, 2, 3, 4, 23, 26, 28, 31, 32, 33, 34, 35, 36, 37 & 38

BROOKLYN NEW YORK

Drawing Title
ADJACENT PROPERTY AND SURROUNDING LAND USE

Project No.	100681201
Date	4/2/2020
Scale	1 " = 60 '
Drawn By	IHB
Figure	4

Path: \\Langan.com\data\PAR\data2\100681201\Project Data\ArcGIS\MXD\Environmental_Figures\2020-03 - RIR\Figure 4 – Adjacent Property and Surrounding Land Use.mxd Date: 4/2/2020 User: ibaker Time: 10:40:13 AM

Legend

- Site Boundary
- AOCs

Proposed Sample Locations (Langan)

- Soil Boring
- Monitoring Well
- Soil Vapor Point
- Ambient Air Sample

Historic Sample Locations (P.W. Grosser)

- Soil Boring
- Monitoring Well
- Soil Vapor Point

SV006 SB011 LSV-1 LSB-1 SV004 LSV-2 LMW-2 MW 001 SB001 SB010 MW 002 AOC-2 - Fuel Oil UST AOC-3A - Debris Pile SB016 SB015 SB014 LSB-2 SB018 SB017 LSV-7 LSV-8 SB002 SV003 SV008 Ambient-1 LSB-3 SB013 SB009 SB003 LSV-3 SB012 LSV-6 SB020 SB007 SV001 SV007 AOC-1 - Gasoline UST AOC-3B - Debris Pile SB004 MW 003 LMW-1 SB019 AOC-3C - Debris Pile SB021 LSB-6 SB008 LSV-4 SV002 SB006 LSB-5 LSV-5 MW 004 SB005 SV005 LSB-4

Prescott Place

Barncroft Place

Atlantic Avenue

N W E S

Notes:
1. Parcel information from MapPLUTO 18v2 copyrighted by the New York City Department of Planning.
2. Aerial imagery from Langan's subscription to Nearmap ltd., collected October 26, 2018.
3. The site boundary shown corresponds to tax map metes and bounds as well as the description of the real property described in the 26 November 2018 Brownfield Cleanup Agreement (Site No. C224279).
4. AOC-4: Historic Fill is located throughout the site footprint.
5. Historical sample locations and AOC's digitized from Figure 5 – AREAS OF CONCERN and Figure 6 – SAMPLE LOCATIONS provided in 1921 Atlantic Avenue Remedial Investigation Report dated June 2018 prepared by P.W. Grosser.
6. Langan sample locations are approximate and based on field measurements.
7. Monitoring well MW-001, previously installed by P.W. Grosser, was determined to be damaged upon inspection and was replaced with LMW-2 during the SRI.

30 0 30
SCALE IN FEET

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1921 ATLANTIC AVENUE

BLOCK No. 1557, LOT Nos. 1, 2, 3, 4, 23, 26, 28, 31, 32, 33, 34, 35, 36, 37 & 38

BROOKLYN NEW YORK

Drawing Title
SITE PLAN/AOC AND SAMPLE LOCATION PLAN

Project No. 100681201	Figure 5
Date 4/3/2020	
Scale 1 " = 30 '	
Drawn By IHB	

Path: \\Langan.com\data\PAR\data2\100681201\Project Data\ArcGIS\MXD\Environmental_Figures\2020-03 - RIR\Figure 5 - Site Plan.mxd Date: 4/3/2020 User: ibaker Time: 11:49:51 AM

Legend

- Site Boundary
- AOCs

Proposed Sample Locations (Langan)

- Soil Boring

Sample ID	012_LSB-1A_20200318		013_LSB-1B_20200318	
Sample Date	3/18/2020		3/18/2020	
Sample Depth (feet bgs)	2-4		16-18	
VOCs (mg/kg)	ND		ND	
SVOCs (mg/kg)				
Benzo(a)Anthracene	8.03	D	ND	
Benzo(a)Pyrene	6.9	D	ND	
Benzo(b)Fluoranthene	5.92	D	ND	
Benzo(k)Fluoranthene	3	D	ND	
Chrysene	7.3	D	ND	
Dibenz(a,h)Anthracene	1.15	D	ND	
Indeno(1,2,3-c,d)Pyrene	4.92	J	ND	
Pesticides (mg/kg)				
4,4'-DDD	0.0142	D	ND	
4,4'-DDE	0.00678	D	ND	
Herbicides (mg/kg)	ND		ND	
PCBs (mg/kg)	ND		ND	
Inorganics (mg/kg)				
Barium	441		NE	
Copper	85.5		NE	
Lead	646		NE	
Mercury	0.413		ND	
Nickel	30.9		NE	
Zinc	384		NE	
PFAS (µg/kg)				
N-ethyl perfluorooctane- sulfonamidoacetic acid	0.323	JD	ND	
Perfluorooctanesulfonic acid	0.89	JD	0.0663	J

Sample ID	001_LSB-6A_20200317		002_LSB-6B_20200317		003_DUP-1_20200317	
Sample Date	3/17/2020		3/17/2020		3/17/2020	
Sample Depth (feet bgs)	2-4		16-18		16-18	
VOCs (mg/kg)	NE		NE		NE	
SVOCs (mg/kg)	NE		ND		ND	
Pesticides (mg/kg)	ND		ND		ND	
Herbicides (mg/kg)	ND		ND		ND	
PCBs (mg/kg)	ND		ND		ND	
Inorganics (mg/kg)	NE		NE		NE	
PFAS (µg/kg)						
Perfluorobutanoic acid	0.224	J	ND		ND	
Perfluorohexanoic Acid	0.289	J	ND		ND	
Perfluorooctanesulfonic acid	0.139	J	0.0818	J	ND	
Perfluorooctanoic Acid	0.103	J	0.136	J	0.111	J
Perfluoropentanoic Acid	0.219	J	ND		ND	

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted-Residential SCOs	NYSDEC Part 375 Protection of Groundwater SCOs
SVOCs (mg/kg)				
Benzo(a)Anthracene	56-55-3	1	1	1
Benzo(a)Pyrene	50-32-8	1	1	22
Benzo(b)Fluoranthene	205-99-2	1	1	1.7
Benzo(k)Fluoranthene	207-08-9	0.8	3.9	1.7
Chrysene	218-01-9	1	3.9	1
Dibenz(a,h)Anthracene	53-70-3	0.33	0.33	1,000
Indeno(1,2,3-c,d)Pyrene	193-39-5	0.5	0.5	12
Pesticides (mg/kg)				
4,4'-DDD	72-54-8	0.0033	13	14
4,4'-DDE	72-55-9	0.0033	8.9	17
4,4'-DDT	50-29-3	0.0033	7.9	136
Dieldrin	60-57-1	0.005	0.2	0.1
Inorganics (mg/kg)				
Barium	7440-39-3	350	400	820
Chromium, Hexavalent	18540-29-9	1	110	19
Chromium, Trivalent	16065-83-1	30	180	~
Copper	7440-50-8	50	270	1,720
Lead	7439-92-1	63	400	450
Mercury	7439-97-6	0.18	0.81	0.73
Nickel	7440-02-0	30	310	130
Zinc	7440-66-6	109	10,000	2,480

Sample ID	004_LSB-5A_20200317		005_LSB-5B_20200317	
Sample Date	3/17/2020		3/17/2020	
Sample Depth (feet bgs)	2-4		20-22	
VOCs (mg/kg)	NE		NE	
SVOCs (mg/kg)				
Benzo(a)Anthracene	22	D	ND	
Benzo(a)Pyrene	14.1	D	ND	
Benzo(b)Fluoranthene	10.9	D	ND	
Benzo(k)Fluoranthene	8.99	D	ND	
Chrysene	25.5	D	ND	
Dibenz(a,h)Anthracene	3.03	D	ND	
Indeno(1,2,3-c,d)Pyrene	5.28	D	ND	
Pesticides (mg/kg)				
4,4'-DDD	0.00422	J	ND	
4,4'-DDT	0.0483	J	ND	
Herbicides (mg/kg)	ND		ND	
PCBs (mg/kg)	ND		ND	
Inorganics (mg/kg)				
Chromium, Hexavalent	ND		1.19	
PFAS (µg/kg)				
Perfluorobutanoic acid	0.199	J	ND	
Perfluorodecanoic acid	0.0895	J	ND	
Perfluorooctanesulfonic acid	0.751		0.121	J
Perfluorooctanoic Acid	0.125	J	ND	
Perfluoropentanoic Acid	0.104	J	ND	

Sample ID	014_LSB-2A_20200318		015_LSB-2B_20200318	
Sample Date	3/18/2020		3/18/2020	
Sample Depth (feet bgs)	2-4		16-18	
VOCs (mg/kg)	NE		NE	
SVOCs (mg/kg)				
Benzo(a)Anthracene	8.22	D	ND	
Benzo(a)Pyrene	5.67	D	ND	
Benzo(b)Fluoranthene	4.42	D	ND	
Benzo(k)Fluoranthene	4.03	D	ND	
Chrysene	7.47	D	ND	
Dibenz(a,h)Anthracene	1.35	D	ND	
Indeno(1,2,3-c,d)Pyrene	4.52	J	ND	
Pesticides (mg/kg)				
4,4'-DDD	0.0453	D	ND	
4,4'-DDE	0.015	D	ND	
4,4'-DDT	0.00848	DP	ND	
Dieldrin	0.00707	D	ND	
Herbicides (mg/kg)	ND		ND	
PCBs (mg/kg)	NE		ND	
Inorganics (mg/kg)				
Barium	1,650		NE	
Chromium, Trivalent	33.6		NE	
Copper	88.6		NE	
Lead	1,500		NE	
Mercury	0.663		ND	
Zinc	863		NE	
PFAS (µg/kg)				
Perfluorodecanoic acid	0.0661	J	ND	
Perfluorooctanesulfonic acid	3.71		0.0926	J

Sample ID	006_LSB-4A_20200317		007_LSB-4B_20200317	
Sample Date	3/17/2020		3/17/2020	
Sample Depth (feet bgs)	1-3		16-18	
VOCs (mg/kg)	NE		ND	
SVOCs (mg/kg)				
Benzo(a)Anthracene	2.35	D	ND	
Benzo(a)Pyrene	2.01	D	ND	
Benzo(b)Fluoranthene	1.94	D	ND	
Benzo(k)Fluoranthene	1.66	D	ND	
Chrysene	1.99	D	ND	
Dibenz(a,h)Anthracene	0.488	D	ND	
Indeno(1,2,3-c,d)Pyrene	1.29	D	ND	
Pesticides (mg/kg)	ND		ND	
Herbicides (mg/kg)	ND		ND	
PCBs (mg/kg)	ND		ND	
Inorganics (mg/kg)				
Mercury	0.638		ND	
PFAS (µg/kg)				
Perfluorooctanesulfonic acid	0.267	J	ND	

Sample ID	008_LSB-3A_20200317		009_LSB-3B_20200317	
Sample Date	3/17/2020		3/17/2020	
Sample Depth (feet bgs)	1-3		16-18	
VOCs (mg/kg)	NE		NE	
SVOCs (mg/kg)	NE		ND	
Pesticides (mg/kg)	ND		ND	
Herbicides (mg/kg)	ND		ND	
PCBs (mg/kg)	ND		ND	
Inorganics (mg/kg)				
Barium	581		NE	
Copper	68.4		NE	
Lead	632		NE	
Mercury	0.264		ND	
Zinc	620		NE	
PFAS (µg/kg)				
Perfluorobutanoic acid	0.209	J	ND	
Perfluorodecanoic acid	0.0683	J	ND	
Perfluoroheptanoic acid	0.0669	J	ND	
Perfluorohexanoic Acid	0.17	J	ND	
Perfluorononanoic Acid	0.0902	J	ND	
Perfluorooctanesulfonic acid	0.896		ND	
Perfluorooctanoic Acid	0.632		0.091	J
Perfluoropentanoic Acid	0.14	J	ND	

Notes:
1. Soil sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use, Restricted Use Restricted-Residential and Protection of Groundwater Soil Cleanup Objectives (SCO).
2. Detected analytical results above Unrestricted Use SCOs are bolded.
3. Detected analytical results above Restricted Use Restricted-Residential SCOs are shaded.
4. Detected analytical results above Protection of Groundwater SCOs are underlined.
5. Sample 003_DUP-1_20200317 is a duplicate sample of 002_LSB-6B_20200317.
6. – = Regulatory limit for this analyte does not exist
7. bgs = below grade surface
8. mg/kg = milligrams per kilogram
9. µg/kg = micrograms per kilogram
10. ND = Not detected
11. NE = No exceedancse

Qualifiers:
D = The concentration reported is a result of a diluted sample.
P = The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.
J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

Notes:
1. Parcel information from MapPLUTO 18v2 copyrighted by the New York City Department of Planning.
2. Aerial imagery from Langan's subscription to Nearmap ltd., collected October 26, 2018.
3. The site boundary shown corresponds to tax map metes and bounds as well as the description of the real property described in the 26 November 2018 Brownfield Cleanup Agreement (Site No. C224279).
4. AOC-4: Historic Fill is located throughout the site footprint.
5. AOC's digitized from Figure 5 – AREAS OF CONCERN provided in 1921 Atlantic Avenue Remedial Investigation Report dated June 2018 prepared by P.W. Grosser.
6. Langan sample locations are approximate and based on field measurements

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Project
1921 ATLANTIC AVENUE

BLOCK No. 1557, LOT Nos. 1, 2, 3, 4, 23, 26, 28, 31, 32, 33, 34, 35, 36, 37 & 38

BROOKLYN NEW YORK

Drawing Title
SOIL ANALYTICAL RESULTS

Project No.	100681201
Date	4/2/2020
Scale	1 " = 40 '
Drawn By	IHB
Figure	6

Path: \\Langan.com\data\PAR\data2\100681201\Project Data\ArcGIS\MXD\Environmental_Figures\2020-03 - RIR\Figure 6 - Soil Analytical Results.mxd Date: 4/2/2020 User: ibaker Time: 3:16:45 PM

Sample ID	030_LMW-2_20200322
Sample Date	3/22/2020
VOCs (µg/L)	NE
SVOC (µg/L)	NE
Pesticides (µg/L)	ND
Herbicides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Iron	**2,910**
Sodium	**170,000**
Sodium (Dissolved)	**170,000**
PFAS (ng/L)	
Perfluorobutanesulfonic Acid	14.4
Perfluoroheptanoic acid	16.9
Perfluorohexanesulfonic Acid	6.12
Perfluorohexanoic Acid	19
Perfluorooctanoic Acid	47.9
Perfluoropentanoic Acid	25.6

Sample ID	031_MW-002_20200322	
Sample Date	3/22/2020	
VOCs (µg/L)	NE	
SVOC (µg/L)	NE	
Pesticides (µg/L)	ND	
Herbicides (µg/L)	ND	
PCBs (µg/L)	ND	
Inorganics (µg/L)		
Chromium, Total	**117**	
Iron	**31,400**	
Lead	**41.5**	
Magnesium	**50,900**	
Magnesium (Dissolved)	**40,700**	
Manganese	**1,490**	
Sodium	**161,000**	
Sodium (Dissolved)	**154,000**	
PFAS (ng/L)		
Perfluorobutanesulfonic Acid	19.1	
Perfluoroheptanoic acid	12.2	
Perfluorohexanesulfonic Acid	9.05	
Perfluorohexanoic Acid	14.3	
Perfluorononanoic Acid	1.75	J
Perfluorooctanesulfonic acid	11.5	
Perfluorooctanoic Acid	36.5	
Perfluoropentanoic Acid	15.2	

Sample ID	029_LMW-1_20200322		034_DUP-1_20200322	
Sample Date	3/22/2020		3/22/2020	
VOCs (µg/L)	NE		NE	
SVOC (µg/L)	NE		NE	
Pesticides (µg/L)	ND		ND	
Herbicides (µg/L)	ND		ND	
PCBs (µg/L)	ND		ND	
Inorganics (µg/L)				
Manganese	**312**		**318**	
Manganese (Dissolved)	**315**		**310**	
Sodium	**118,000**		**126,000**	
Sodium (Dissolved)	**119,000**		**121,000**	
PFAS (ng/L)				
Perfluorobutanesulfonic Acid	6.7	D	6.94	D
Perfluoroheptanoic acid	25.4	D	24.9	D
Perfluorohexanesulfonic Acid	8.34	D	8.29	D
Perfluorohexanoic Acid	19	D	19.7	D
Perfluorooctanoic Acid	43.9	D	44.6	D
Perfluoropentanoic Acid	19.6	D	19.6	D
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	2.26	J	2.14	J

Sample ID	032_MW-003_20200322	
Sample Date	3/22/2020	
VOCs (µg/L)	NE	
SVOC (µg/L)	NE	
Pesticides (µg/L)	ND	
Herbicides (µg/L)	ND	
PCBs (µg/L)	ND	
Inorganics (µg/L)		
Magnesium	**46,300**	
Magnesium (Dissolved)	**47,600**	
Sodium	**254,000**	
Sodium (Dissolved)	**255,000**	
PFAS (ng/L)		
N-ethyl perfluorooctane- sulfonamidoacetic acid	2.1	
N-methyl perfluorooctane- sulfonamidoacetic acid	2.22	J
Perfluorobutanesulfonic Acid	14.9	
Perfluorodecanoic acid	0.788	J
Perfluoroheptanesulfonic acid	0.913	J
Perfluoroheptanoic acid	19.6	
Perfluorohexanesulfonic Acid	15.4	
Perfluorohexanoic Acid	21	
Perfluorononanoic Acid	2.43	
Perfluorooctanoic Acid	48.9	
Perfluoropentanoic Acid	19.4	
Perfluorotetradecanoic Acid	0.676	J
Perfluoroundecanoic Acid	0.866	J

Sample ID	033_MW-004_20200322	
Sample Date	3/22/2020	
VOCs (µg/L)	NE	
SVOC (µg/L)	NE	
Pesticides (µg/L)	ND	
Herbicides (µg/L)	ND	
PCBs (µg/L)	ND	
Inorganics (µg/L)		
Iron	**1,330**	
Magnesium	**74,900**	
Magnesium (Dissolved)	**81,000**	
Sodium	**191,000**	
Sodium (Dissolved)	**196,000**	
PFAS (ng/L)		
Perfluorobutanesulfonic Acid	4.35	
Perfluoroheptanoic acid	16.1	
Perfluorohexanesulfonic Acid	4.97	
Perfluorohexanoic Acid	17.4	
Perfluorooctanoic Acid	34.8	
Perfluoropentanoic Acid	19.2	
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	0.515	J

Analyte	CAS Number	NYSDEC SGVs
Inorganics (µg/L)		
Chromium, Total	7440-47-3	50
Iron	7439-89-6	300
Lead	7439-92-1	25
Magnesium	7439-95-4	35,000
Manganese	7439-96-5	300
Sodium	7440-23-5	20,000

Notes:
1. Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (herein collectively referenced as "NYSDEC SGVs").
2. Detected analytical results above NYSDEC SGVs are bolded and shaded.
3. Sample 034_DUP-1_20200322 is a duplicate sample of 029_LMW-1_20200322.
4. ug/l = micrograms per liter
5. ng/L = nanograms per liter
6. ND = Not detected
7. NE = No exceedances

Qualifiers:
J = The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
D = The concentration reported is a result of a diluted sample.

Notes:
1. Parcel information from MapPLUTO 18v2 copyrighted by the New York City Department of Planning.
2. Aerial imagery from Langan's subscription to Nearmap ltd., collected October 26, 2018.
3. The site boundary shown corresponds to tax map metes and bounds as well as the description of the real property described in the 26 November 2018 Brownfield Cleanup Agreement (Site No. C224279).
4. AOC-4: Historic Fill is located throughout the site footprint.
5. Historical sample locations and AOC's digitized from Figure 5 – AREAS OF CONCERN and Figure 6 – SAMPLE LOCATIONS provided in 1921 Atlantic Avenue Remedial Investigation Report dated June 2018 prepared by P.W. Grosser.
6. Langan sample locations are approximate and based on field measurements.
7. Monitoring well MW-001, previously installed by P.W. Grosser, was determined to be damaged upon inspection and was replaced with LMW-2 during the SRI.
8. All elevations are referenced to the North American Vertical Datum of 1988 (NAVD88).

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SCALE IN FEET

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1921 ATLANTIC AVENUE

BLOCK No. 1557, LOT Nos. 1, 2, 3, 4, 23, 26, 28, 31, 32, 33, 34, 35, 36, 37 & 38

BROOKLYN NEW YORK

Drawing Title
POTENTIOMETRIC SURFACE MAP AND GROUNDWATER ANALYTICAL RESULTS

Project No.	Figure
100681201	7
Date: 4/3/2020	
Scale: 1 " = 40 '	
Drawn By: IHB	

Path: \\Langan.com\data\PAR\data2\100681201\Project Data\ArcGIS\MXD\Environmental_Figures\2020-03 - RIR\Figure 7 - Potentiometric Surface Map and Groundwater Analytical Results.mxd Date: 4/3/2020 User: ibaker Time: 1:38:05 PM

Sample ID	019_LSV-1		020_DUP-1	
Sample Date	3/20/2020		3/20/2020	
Sample Type	SV		SV	
VOCs (µg/m³)				
1,1,1-Trichloroethane	ND		ND	
1,1-Dichloroethene	ND		ND	
1,2,4-Trimethylbenzene	48	J	97	J
1,3,5-Trimethylbenzene (Mesitylene)	40.8	J	74.4	J
2-Hexanone	ND		3.43	J
4-Ethyltoluene	43.5	J	87.6	J
Acetone	51.5	J	67.9	J
Benzene	132	J	162	J
Carbon Disulfide	4.53	J	5.74	J
Carbon Tetrachloride	ND		ND	
Chloroethane	3.11	J	3.93	J
Cis-1,2-Dichloroethene	ND		ND	
Cyclohexane	2.37	D	2.83	D
Dichlorodifluoromethane	1.97	D	2.22	D
Ethylbenzene	79.6	J	116	J
Isopropanol	17.1	J	8.69	J
M,P-Xylene	144	J	212	J
Methyl Ethyl Ketone (2-Butanone)	13.4	J	18	J
Methylene Chloride	1.44	D	1.29	D
n-Heptane	32.4	J	48.9	J
n-Hexane	14.1	J	17.7	J
o-Xylene (1,2-Dimethylbenzene)	76.7	J	115	J
Styrene	8.81	J	13.1	J
Tetrachloroethene (PCE)	6.44	J	3.99	J
Tetrahydrofuran	1.08	D	1.1	D
Toluene	166	J	215	J
Trichloroethene (TCE)	ND		ND	
Trichlorofluoromethane	1.89	D	2	D
Vinyl Chloride	ND		ND	

Sample ID	028_AMBIENT-1
Sample Date	3/20/2020
Sample Type	AA
VOCs (µg/m³)	
1,1,1-Trichloroethane	ND
1,1-Dichloroethene	ND
1,2,4-Trimethylbenzene	0.686 D
4-Ethyltoluene	0.637 D
Acetone	6.44 D
Benzene	1.11 D
Carbon Tetrachloride	0.502 D
Chloromethane	1.24 D
Cis-1,2-Dichloroethene	ND
Cyclohexane	0.377 D
Dichlorodifluoromethane	1.73 D
Ethylbenzene	0.693 D
Isopropanol	5.66 D
M,P-Xylene	2.08 D
Methyl Ethyl Ketone (2-Butanone)	0.97 D
Methyl Methacrylate	0.816 D
Methylene Chloride	4.47 D
n-Heptane	0.654 D
n-Hexane	1.12 D
o-Xylene (1,2-Dimethylbenzene)	0.779 D
Tetrachloroethene (PCE)	20.2 J
Toluene	2.93 D
Trichloroethene (TCE)	0.268 D
Trichlorofluoromethane	1.34 D
Vinyl Chloride	ND

Sample ID	021_LSV-2
Sample Date	3/20/2020
Sample Type	SV
VOCs (µg/m³)	
1,1,1-Trichloroethane	ND
1,1-Dichloroethene	ND
1,2,4-Trimethylbenzene	20.5 D
1,3,5-Trimethylbenzene (Mesitylene)	6.58 D
1,3-Butadiene	2.05 D
4-Ethyltoluene	17.4 D
Acetone	104 D
Benzene	22.5 D
Carbon Disulfide	108 D
Carbon Tetrachloride	ND
Chloromethane	0.516 D
Cis-1,2-Dichloroethene	ND
Cyclohexane	118 D
Dichlorodifluoromethane	9.24 D
Ethylbenzene	27 D
Isopropanol	6.76 D
M,P-Xylene	45.8 D
Methyl Ethyl Ketone (2-Butanone)	41 D
Methylene Chloride	ND
n-Heptane	155 D
n-Hexane	395 D
o-Xylene (1,2-Dimethylbenzene)	20.6 D
Styrene	3.07 D
Tetrachloroethene (PCE)	24.7 D
Toluene	24.3 D
Trichloroethene (TCE)	ND
Trichlorofluoromethane	0.909 D
Vinyl Chloride	1.65 D

Sample ID	026_LSV-7
Sample Date	3/20/2020
Sample Type	SV
VOCs (µg/m³)	
1,1,1-Trichloroethane	ND
1,1-Dichloroethene	ND
1,2,4-Trimethylbenzene	49.9 D
1,3,5-Trimethylbenzene (Mesitylene)	13.6 D
2-Hexanone	3.4 D
4-Ethyltoluene	30.6 D
Acetone	60.2 D
Benzene	5.2 D
Carbon Disulfide	2.01 D
Carbon Tetrachloride	0.386 D
Chloroform	2.4 D
Cis-1,2-Dichloroethene	ND
Cyclohexane	1.06 D
Dichlorodifluoromethane	2.2 D
Ethylbenzene	37.6 D
M,P-Xylene	31.3 D
Methyl Ethyl Ketone (2-Butanone)	13.8 D
Methyl Methacrylate	4.78 D
Methylene Chloride	1.12 D
n-Heptane	35.9 D
n-Hexane	2.54 D
o-Xylene (1,2-Dimethylbenzene)	13.9 D
Styrene	0.981 D
Tetrachloroethene (PCE)	23.8 D
Tetrahydrofuran	1.04 D
Toluene	16.1 D
Trichloroethene (TCE)	ND
Trichlorofluoromethane	1.38 D
Vinyl Chloride	ND

Sample ID	027_LSV-8
Sample Date	3/20/2020
Sample Type	SV
VOCs (µg/m³)	
1,1,1-Trichloroethane	ND
1,1-Dichloroethene	ND
1,2,4-Trimethylbenzene	19.2 D
1,3,5-Trimethylbenzene (Mesitylene)	5.03 D
2-Hexanone	3.34 D
4-Ethyltoluene	16 D
Acetone	73.8 D
Benzene	1.28 D
Carbon Disulfide	1.1 D
Carbon Tetrachloride	0.402 D
Chloromethane	0.759 D
Cis-1,2-Dichloroethene	ND
Cyclohexane	0.605 D
Dichlorodifluoromethane	2.37 D
Ethyl Acetate	1.67 D
Ethylbenzene	14.9 D
Isopropanol	36.8 D
M,P-Xylene	60.7 D
Methyl Ethyl Ketone (2-Butanone)	14.6 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.786 D
Methyl Methacrylate	37.6 D
Methylene Chloride	1.28 D
n-Heptane	3.6 D
n-Hexane	3.33 D
o-Xylene (1,2-Dimethylbenzene)	21 D
Styrene	3 D
Tetrachloroethene (PCE)	34.6 D
Toluene	22.5 D
Trichloroethene (TCE)	ND
Trichlorofluoromethane	1.89 D
Vinyl Chloride	ND

Analyte	CAS Number	NYSDOH Decision Matrices Minimum Concentrations
VOCs (µg/m³)		
1,1,1-Trichloroethane	71-55-6	100
1,1-Dichloroethene	75-35-4	6
1,2,4-Trimethylbenzene	95-63-6	~
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	~
1,3-Butadiene	106-99-0	~
2-Hexanone	591-78-6	~
4-Ethyltoluene	622-96-8	~
Acetone	67-64-1	~
Benzene	71-43-2	~
Bromodichloromethane	75-27-4	~
Carbon Disulfide	75-15-0	~
Carbon Tetrachloride	56-23-5	6
Chloroethane	75-00-3	~
Chloroform	67-66-3	~
Chloromethane	74-87-3	~
Cis-1,2-Dichloroethene	156-59-2	6
Cyclohexane	110-82-7	~
Dichlorodifluoromethane	75-71-8	~
Ethyl Acetate	141-78-6	~
Ethylbenzene	100-41-4	~
Isopropanol	67-63-0	~
M,P-Xylene	179601-23-1	~
Methyl Ethyl Ketone (2-Butanone)	78-93-3	~
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	~
Methyl Methacrylate	80-62-6	~
Methylene Chloride	75-09-2	100
n-Heptane	142-82-5	~
n-Hexane	110-54-3	~
o-Xylene (1,2-Dimethylbenzene)	95-47-6	~
Styrene	100-42-5	~
Tetrachloroethene (PCE)	127-18-4	100
Tetrahydrofuran	109-99-9	~
Toluene	108-88-3	~
Trichloroethene (TCE)	79-01-6	6
Trichlorofluoromethane	75-69-4	~
Vinyl Chloride	75-01-4	6

Sample ID	025_LSV-6	
Sample Date	3/20/2020	
Sample Type	SV	
VOCs (µg/m³)		
1,1,1-Trichloroethane	ND	
1,1-Dichloroethene	ND	
1,2,4-Trimethylbenzene	58.2	D
1,3,5-Trimethylbenzene (Mesitylene)	17.1	D
2-Hexanone	4.04	D
4-Ethyltoluene	38.8	D
Acetone	45.6	D
Benzene	2.32	D
Carbon Disulfide	3.21	D
Carbon Tetrachloride	0.457	D
Chloroform	1.99	D
Cis-1,2-Dichloroethene	ND	
Cyclohexane	1.05	D
Dichlorodifluoromethane	2.08	D
Ethylbenzene	12.5	D
Isopropanol	1.82	D
M,P-Xylene	41.1	D
Methyl Ethyl Ketone (2-Butanone)	12.8	D
Methyl Methacrylate	0.892	D
Methylene Chloride	2.07	D
n-Heptane	40.1	D
n-Hexane	3.22	D
o-Xylene (1,2-Dimethylbenzene)	17.8	D
Styrene	1.05	D
Tetrachloroethene (PCE)	7.98	D
Tetrahydrofuran	0.985	D
Toluene	20.5	D
Trichloroethene (TCE)	0.312	D
Trichlorofluoromethane	1.47	D
Vinyl Chloride	ND	

Sample ID	022_LSV-3
Sample Date	3/20/2020
Sample Type	SV
VOCs (µg/m³)	
1,1,1-Trichloroethane	ND
1,1-Dichloroethene	ND
1,2,4-Trimethylbenzene	51.9 D
1,3,5-Trimethylbenzene (Mesitylene)	14.9 D
2-Hexanone	2.75 D
4-Ethyltoluene	32.4 D
Acetone	48.8 D
Benzene	1.97 D
Bromodichloromethane	5.34 D
Carbon Disulfide	0.958 D
Carbon Tetrachloride	0.528 D
Chloroform	127 D
Cis-1,2-Dichloroethene	ND
Cyclohexane	1.25 D
Dichlorodifluoromethane	2.28 D
Ethylbenzene	68.6 D
Isopropanol	0.756 D
M,P-Xylene	34 D
Methyl Ethyl Ketone (2-Butanone)	11.8 D
Methylene Chloride	2.62 D
n-Heptane	40.1 D
n-Hexane	3.2 D
o-Xylene (1,2-Dimethylbenzene)	15 D
Styrene	0.596 D
Tetrachloroethene (PCE)	17.4 D
Toluene	19.1 D
Trichloroethene (TCE)	ND
Trichlorofluoromethane	1.57 D
Vinyl Chloride	ND

Sample ID	023_LSV-4	
Sample Date	3/20/2020	
Sample Type	SV	
VOCs (µg/m³)		
1,1,1-Trichloroethane	0.945	D
1,1-Dichloroethene	ND	
1,2,4-Trimethylbenzene	54.7	D
1,3,5-Trimethylbenzene (Mesitylene)	40.5	D
2-Hexanone	2.48	D
4-Ethyltoluene	37.8	D
Acetone	59.9	D
Benzene	22.6	D
Carbon Disulfide	1.89	D
Carbon Tetrachloride	0.454	D
Chloroform	0.846	D
Chloromethane	0.895	D
Cis-1,2-Dichloroethene	ND	
Cyclohexane	1.39	D
Dichlorodifluoromethane	2.14	D
Ethylbenzene	56.7	D
Isopropanol	3.44	D
M,P-Xylene	154	D
Methyl Ethyl Ketone (2-Butanone)	12.6	D
Methylene Chloride	1.25	D
n-Heptane	29.1	D
n-Hexane	3.46	D
o-Xylene (1,2-Dimethylbenzene)	80.4	D
Styrene	9.35	D
Tetrachloroethene (PCE)	17.3	D
Tetrahydrofuran	0.852	D
Toluene	86	D
Trichloroethene (TCE)	ND	
Trichlorofluoromethane	1.54	D
Vinyl Chloride	ND	

Sample ID	024_LSV-5	
Sample Date	3/20/2020	
Sample Type	SV	
VOCs (µg/m³)		
1,1,1-Trichloroethane	ND	
1,1-Dichloroethene	ND	
1,2,4-Trimethylbenzene	54.8	D
1,3,5-Trimethylbenzene (Mesitylene)	15.3	D
2-Hexanone	4.81	D
4-Ethyltoluene	35.6	D
Acetone	169	D
Benzene	1.39	D
Carbon Disulfide	5.01	D
Carbon Tetrachloride	ND	
Chloroform	1.73	D
Cis-1,2-Dichloroethene	ND	
Cyclohexane	0.776	D
Dichlorodifluoromethane	2.31	D
Ethylbenzene	13.6	D
Isopropanol	1.23	D
M,P-Xylene	33.8	D
Methyl Ethyl Ketone (2-Butanone)	24.2	D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.989	D
Methylene Chloride	1.29	D
n-Heptane	39.8	D
n-Hexane	2.61	D
o-Xylene (1,2-Dimethylbenzene)	16.1	D
Styrene	0.892	D
Tetrachloroethene (PCE)	4.15	D
Tetrahydrofuran	1.09	D
Toluene	17.9	D
Trichloroethene (TCE)	ND	
Trichlorofluoromethane	1.45	D
Vinyl Chloride	ND	

Notes:
1. Soil vapor sample analytical results are compared to the minimum soil vapor concentrations recommending mitigation as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).
2. Ambient air sample analytical results are shown for reference only.
3. Only detected analytes and NYSDOH Matrix A through C compounds are shown.
4. Detected analytical results above the minimum soil vapor concentrations recommending mitigation are bolded and shaded.
5. Sample 020_DUP-1 is a duplicate of parent sample 019_LSV-1.
6. ~ = Regulatory limit for this analyte does not exist
7. µg/m³ = micrograms per cubic meter
8. AA = Ambient Air
9. SV = Soil Vapor

Qualifiers:
D – The concentration reported is a result of a diluted sample.
J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

Notes:
1. Parcel information from MapPLUTO 18v2 copyrighted by the New York City Department of Planning.
2. Aerial imagery from Langan's subscription to Nearmap ltd., collected October 26, 2018.
3. The site boundary shown corresponds to tax map metes and bounds as well as the description of the real property described in the 26 November 2018 Brownfield Cleanup Agreement (Site No. C224279).
4. AOC-4: Historic Fill is located throughout the site footprint.
5. AOC's digitized from Figure 5 – AREAS OF CONCERN provided in 1921 Atlantic Avenue Remedial Investigation Report dated June 2018 prepared by P.W. Grosser.
6. Langan sample locations are approximate and based on field measurements

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SCALE IN FEET

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Langan International LLC
Collectively known as Langan
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1921 ATLANTIC AVENUE
BLOCK No. 1557, LOT Nos. 1, 2, 3, 4, 23, 26, 28, 31, 32, 33, 34, 35, 36, 37 & 38
BROOKLYN NEW YORK

Drawing Title
SOIL VAPOR ANALYTICAL RESULTS

Project No. 100681201
Date 4/2/2020
Scale 1 " = 40 '
Drawn By IHB
Figure 8

APPENDIX A

Geophysical Report

LANGAN

HAGER-RICHTER
GEOSCIENCE, INC.

GEOPHYSICAL SURVEY
1921 ATLANTIC AVENUE
BROOKLYN, NEW YORK

Prepared for:

LANGAN
300 Kimball Drive, 4th Floor
Parsippany, New Jersey 07054

Prepared by:

Hager-Richter Geoscience, Inc.
dba HR Geological Services in New York
846 Main Street
Fords, New Jersey 08863

File 19AM15
March 2020

HAGER-RICHTER
GEOSCIENCE, INC.

GEOPHYSICS FOR THE ENGINEERING COMMUNITY
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March 30, 2020
File 19AM15

Ashley Sandve
Senior Staff Engineer
LANGAN
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Tel: 973.560.4871
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RE: Geophysical Survey
1921 Atlantic Avenue
Brooklyn, New York

Dear Ms. Sandve:

In this report, we summarize the results of a geophysical survey conducted on March 16, 2020 by Hager-Richter Geoscience, Inc., dba HR Geological Services in NY (HRGS), at the above referenced site for LANGAN. The scope of the project and area of interest were specified by LANGAN.

INTRODUCTION

The site is located at 1921 Atlantic Avenue in Brooklyn, New York. The site consists of several vacant properties divided by chain link fences. No structures were present, and the ground cover varied between asphalt, grass, and debris. Figure 1 shows the general location of the site. LANGAN is planning to install fifteen (15) borings within the area. Prior to drilling, LANGAN requested a geophysical survey to determine the locations of subsurface utilities in the accessible portions of the specified areas of interest (AOIs). Most of the AOIs measured approximately 20-ft by 20-ft and each one encompassed a proposed boring location. One of the AOIs was larger and encompassed multiple boring locations. Potential utilities and other features detected in the vicinity of proposed borings were marked on the ground at the time of the survey.

LANGAN was also interested in attempting to locate the extents of two (2) previously identified underground storage tanks (USTs). One of the areas was the larger AOI located in the southwest corner of the lots. The second area was a located on a portion of the sidewalk along Prescott Place.

OBJECTIVES

The objectives of the geophysical survey were 1) to detect and, if detected, to locate utilities and other subsurface obstructions in the accessible portions of 20 ft by 20 ft areas centered at 15 proposed boring locations and 2) to detect and, if detected, to locate the extents of two (2) previously identified USTs.

THE SURVEY

José Carlos Cambero Calzada, P.G., and Amanda Fabian, P.G., of HRGS conducted the field operations on March 16, 2020. The project was coordinated with Ms. Ashley Sandve of LANGAN. Ms. Molly Gutelius, also of LANGAN, was present for the survey and specified the proposed boring locations.

The geophysical survey was conducted using two (2) complementary geophysical methods: ground penetrating radar (GPR) and precision utility location (PUL).

GPR data were acquired in two mutually perpendicular directions and spaced no more than 5 feet apart across the accessible portions of the AOIs. The GPR method is useful for detecting both metallic and non-metallic subsurface objects.

The PUL system was used for tracking utilities in the AOIs by connecting the transmitter to surface features such as valves and hydrants and by scanning the AOI for the presence of live electric lines. When possible, manholes and catch basins present on site were opened to observe the orientation of subsurface utilities.

The proposed locations of the boreholes were marked in the field, by LANGAN, at the beginning of the survey. Figure 2 shows the locations of the GPR traverses and the integrated interpretation of the geophysical data. Utilities and other features detected in the vicinity of proposed borings were marked on the ground at the time of the survey. LANGAN was notified where proposed boring locations conflicted with detected utilities or features.

EQUIPMENT AND PROCEDURES

GPR. The GPR survey was conducted using a Geophysical Survey Systems, Inc. UtilityScan HS system with a 350 MHz Hyper Stacking digital antenna and a 60 ns time window. The system includes a survey wheel that triggers the recording of the data at fixed intervals, thereby ensuring the accuracy of the locations of features detected along the survey lines.

GPR uses a high-frequency electromagnetic pulse (referred to herein as “radar signal”) transmitted from a radar antenna to probe the subsurface. The transmitted radar signals are reflected from subsurface interfaces of materials with contrasting electrical properties. Travel times of the radar signal can be converted to approximate depth below the surface by correlation with targets of known depths and by a curve matching routine. We monitor the acquisition of GPR data in the

field and record the GPR data digitally for subsequent processing. Interpretation of the records is based on the nature and intensity of the reflected signals and on the resulting patterns.

Data from the GPR survey were processed using RADAN 7.4 GPR processing software from Geophysical Survey Systems, Inc. We reviewed profile images of the GPR data. Interpretation of the records is based on the nature and intensity of the reflected signals and on the resulting patterns.

PUL. The PUL survey was conducted using a Radiodetection RD 7000 series PUL instrument. The RD 7000 series consists of separate transmitter and receiver. The system can be used in "passive" and "active" modes to locate buried pipes by detecting electromagnetic signals carried by the pipes. In the "passive" mode, only the receiver unit is used to detect signals carried by the pipe from nearby power lines, live signals transmitted along underground power cables, or very low frequency radio signals resulting from long wave radio transmissions that flow along buried conductors. In the "active" mode of operation, the transmitter is used to induce a signal on a target pipe, and the receiver is used to trace the signal along the length of the pipe. Our system uses a 10W transmitter.

LIMITATIONS OF THE METHOD

> HRGS MAKES NO GUARANTEE THAT ALL TARGETS WERE DETECTED IN THIS SURVEY. HRGS IS NOT RESPONSIBLE FOR DETECTING TARGETS THAT CANNOT BE DETECTED BY THE METHODS EMPLOYED OR BECAUSE OF SITE CONDITIONS. GPR SIGNAL PENETRATION MIGHT NOT BE SUFFICIENT TO DETECT ALL TARGETS.

Field mark-outs. Utilities and other features detected by the GPR and PUL methods at the time of the survey are marked in the field. Adverse weather and site conditions (rain, uneven surfaces, high traffic, etc.) can hamper in-field interpretation. Field markings made on wet pavement, sand or gravel surfaces, or in active construction zones may not last. HRGS is not responsible for maintaining field markings after leaving the work area.

GPR. There are limitations of the GPR technique as used to detect and/or locate targets such as those of the objectives of this survey: (1) surface conditions, (2) electrical conductivity of the ground, (3) contrast of the electrical properties of the target and the surrounding soil, and (4) spacing of the traverses. Of these restrictions, only the last is controllable by us.

The condition of the ground surface can affect the quality of the GPR data and the depth of penetration of the GPR signal. Sites covered with snow piles, high grass, bushes, landscape structures, debris, obstacles, soil mounds, etc. limit the survey access and the coupling of the GPR antenna with the ground. In many cases, the GPR signal will not penetrate below concrete pavement, especially inside buildings, and a target may not be detectable. The GPR method also commonly does not provide useful data under canopies found at some facilities. GPR surveys

inside buildings may be severely constrained by space limitations and interference from above-grade structures.

The electrical conductivity of the ground determines the attenuation of the GPR signals and thereby limits the maximum depth of exploration. For example, the GPR signal does not penetrate clay-rich soils and targets buried in clay might not be detected.

A definite contrast in the electrical conductivities of the surrounding ground and the target material is required to obtain a reflection of the GPR signal. If the contrast is too small, possibly due to construction details or deeply corroded metal in the target, then the reflection may be too weak to recognize, and the target can be missed. In many cases, plastic, clay, asbestos concrete (transite), brick-lined, stone-lined, and other non-metallic utilities cannot be detected.

Spacing of the traverses is limited by access at many sites, but where flexibility of traverse spacing is possible, the spacing is adjusted to the size of the target. The GPR operator controls the spacing between lines, and the design of the survey is based on the dimensions of the smallest feature of interest. Targets with dimensions smaller than the spacing between GPR survey lines can be missed.

PUL. The PUL equipment cannot detect non-metallic utilities, such as pipes constructed of vitrified clay, transite, plastic, PVC, fiberglass, and unreinforced concrete, when used in passive mode alone. Such pipes can be detected if a wire tracer is installed with access to such tracer for transmission of a signal or where access (such as floor drains and clean-outs) permits insertion of a device on which a signal can be transmitted.

In some, but not all, cases, the subsurface utility designation equipment cannot detect metal utilities reliably under reinforced concrete because the signal couples onto the metal reinforcing in the concrete. Similarly, the method commonly cannot be used adjacent to grounded metal structures such as chain link fences and metal guardrails.

In congested areas, where several utilities are bundled or located within a short distance, the signal transmitted on one utility can couple onto adjacent utilities, and the accuracy of the location indicated by the instrument decreases.

RESULTS

The geophysical survey was conducted using the GPR and PUL methods across the accessible portions of the specified AOIs. The proposed locations of the boreholes were marked in the field by LANGAN at the beginning of the survey. Utilities and other features detected in the vicinity of proposed borings were marked on the ground at the time of the survey. Figure 2 shows the locations of the GPR traverses and an integrated interpretation of the geophysical data.

GPR. The locations of the GPR traverses and the integrated interpretation of the geophysical data are shown in Figure 2. Apparent GPR signal penetration was variable, with reflections received

for about 20 - 30 nanoseconds. Based upon velocity matching calibrations made for the area of interest, the GPR signal penetration is estimated to have been about 3 to 4 feet.

The GPR records exhibit linear alignments of reflections interpreted as possible utilities or segments of utilities. Where they are unidentified, they are shown as bold black dashed lines. Several utilities were noted within GPR records and were marked in field accordingly.

Scattered unidentified buried objects also were detected and are shown as red x's in Figure 2. No USTs were detected in the two (2) AOIs encompassing the locations of the previously identified USTs. A large unidentified buried object was located to the west of LSV-6, in an area somewhat close to one of the previously identified USTs. Whether USTs, utilities, or other features occur at a depth greater than the effective depth of penetration of the GPR signal (~3 to 4 feet) or in areas inaccessible to the geophysical survey cannot be determined from the geophysical data.

PUL. The PUL transmitter was attached to conduits located in or near the AOIs, such as light poles, gas meter, fire hydrants, etc. The PUL survey was also conducted in "passive" mode to detect signals carried by utilities from nearby power lines. Where possible, manholes and catch basins were opened to observe visual alignment of sewer and drain utilities.

CONCLUSIONS

Based upon the geophysical survey performed by HRGS at 1921 Atlantic Avenue in Brooklyn, New York, we conclude that:

- Segments of unidentified utilities were detected.
- Numerous scattered buried objects were detected.
- No USTs with: (1) electrical properties sufficiently contrasting with the surrounding soils to produce GPR reflections, or (2) a capacity of 500 gallons or more was detected within the effective depth of penetration of the GPR signal, about 3 to 4 feet.
- *Whether additional USTs, utilities, or other features occur at a depth greater than the effective depth of penetration of the GPR signal (~3 to 4 feet) or in areas inaccessible to the geophysical survey cannot be determined from the geophysical data*.

LIMITATIONS ON USE OF THE REPORT

This letter report was prepared for the exclusive use of LANGAN and its client (collectively, the Client). No other party shall be entitled to rely on this Report, or any information, documents, records, data, interpretations, advice or opinions given to the Client by Hager-Richter Geoscience, Inc. (HRGS) in the performance of its work. The Report relates solely to the specific project for which HRGS has been retained and shall not be used or relied upon by the Client or any third party for any variation or extension of this project, any other project or any other

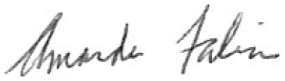
purpose without the express written permission of HRGS. Any unpermitted use by the Client or any third party shall be at the Client's or such third party's own risk and without any liability to HRGS.

HRGS has used reasonable care, skill, competence and judgment in the performance of its services for this project consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by HRGS should be understood to be exploratory and interpretational in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits, soil borings with collection of soil and water samples, and laboratory testing.

Except as expressly provided in this limitations section, HRGS makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.

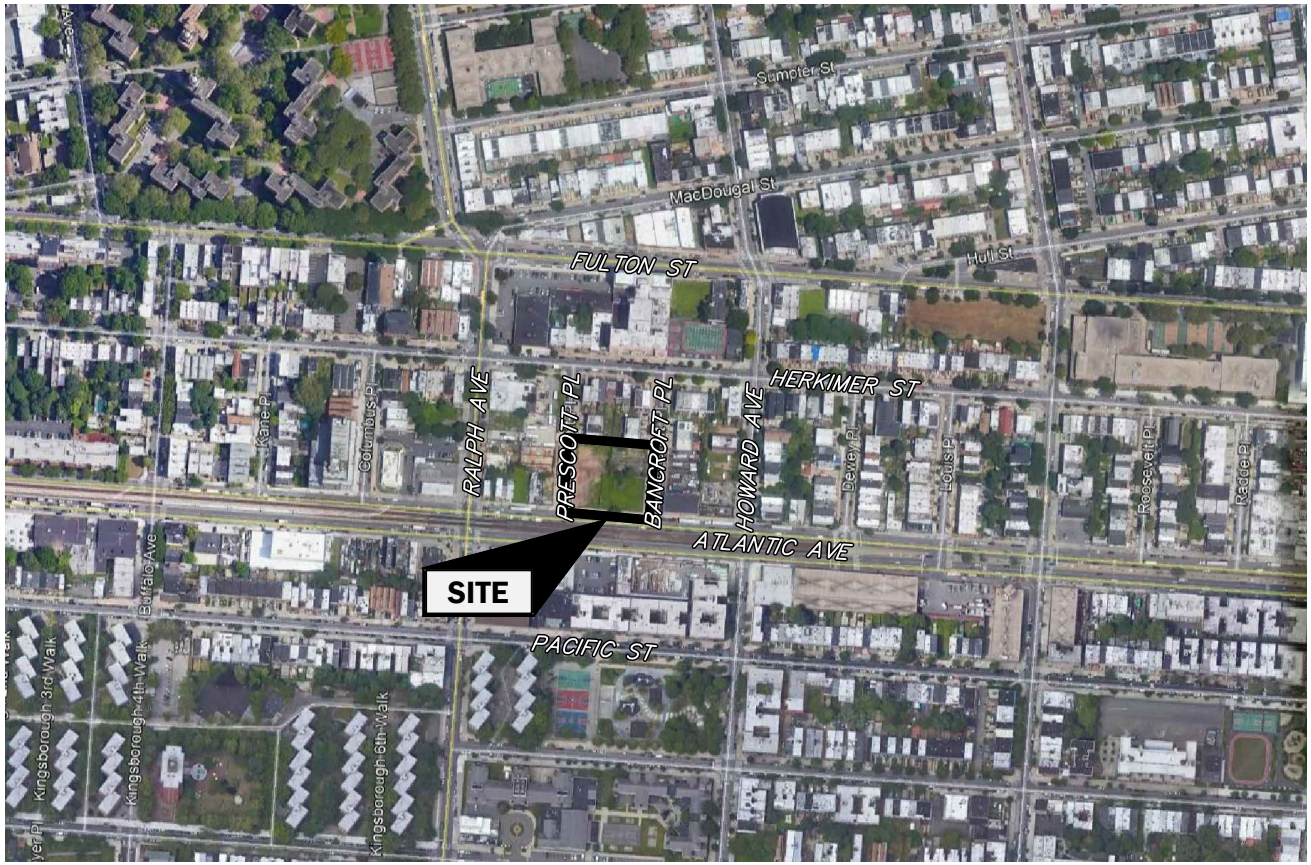
If you have any questions or comments on this letter report, please contact us at your convenience. It has been a pleasure to work with LANGAN on this project. We look forward to working with you again in the future.

Sincerely,
HAGER-RICHTER GEOSCIENCE, INC.
dba HR Geological Services in NY



Amanda Fabian, P.G. (NY 000567)
Geophysicist

Attachments: Figures 1-2



N

H-R

APPROXIMATE SCALE (feet)

0 500 1000

LOCATION

NOTE:

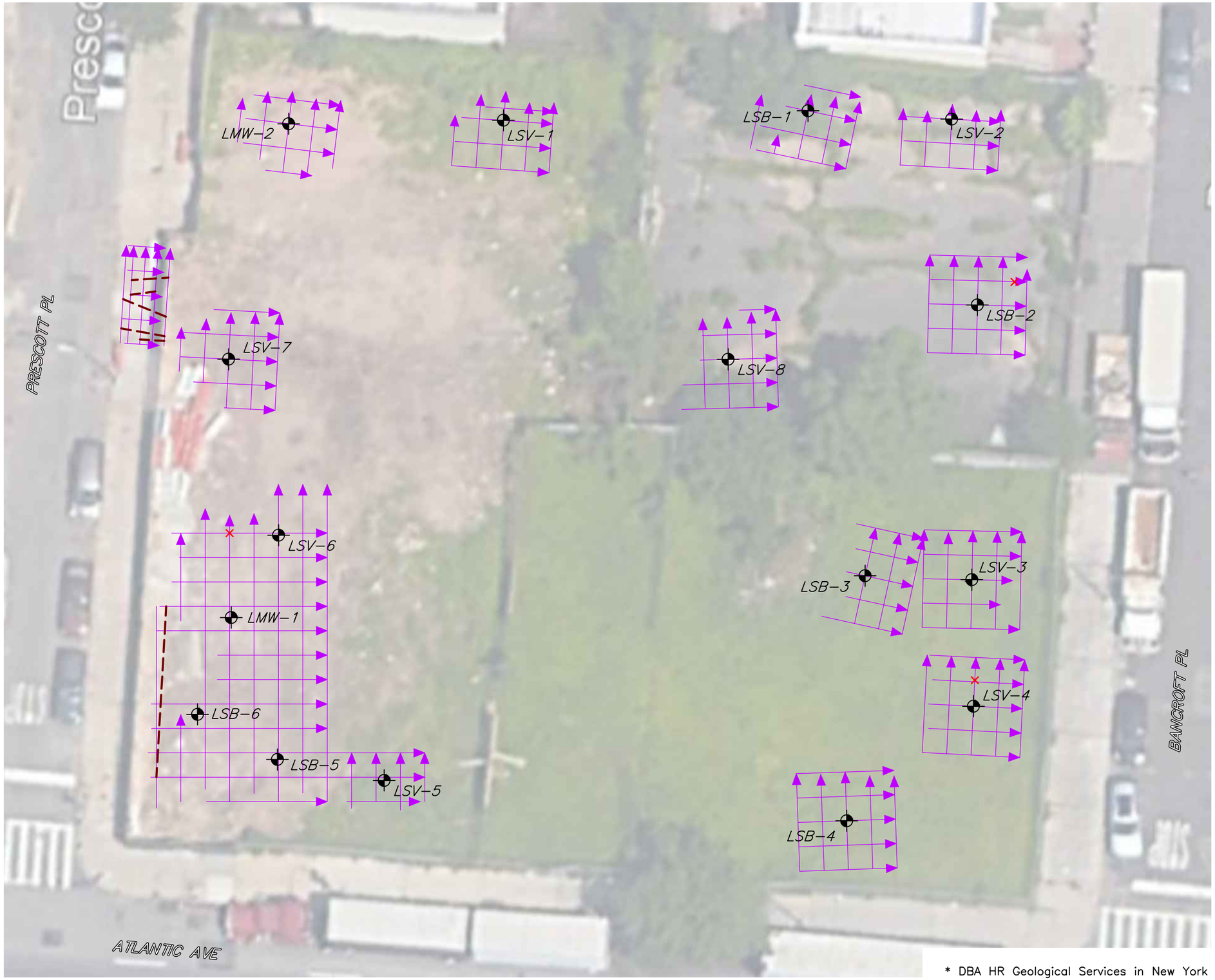
Modified from Google Earth Pro aerial photograph.

* DBA HR Geological Services in New York

Figure 1
General Site Location
1921 Atlantic Avenue
Brooklyn, New York

File 19AM15 | March, 2020

HAGER–RICHTER*
Salem, NH | Fords, NJ



N

LEGEND

- GPR TRAVERSE
- POSSIBLE UTILITY
- UNIDENTIFIED BURIED OBJECT
- PROPOSED BORING

SCALE (feet)

0 20 40

NOTE:

Modified from Google Earth Pro aerial photograph.

* DBA HR Geological Services in New York

Figure 2
Boring Clearance Survey
1921 Atlantic Avenue
Brooklyn, New York

File 19AM15 | March, 2020

HAGER–RICHTER*
Salem, NH | Fords, NJ

APPENDIX B

Boring and Well Logs

LANGAN

Log of Boring **LSB-1** Sheet 1 of 1

Project: 1921 Atlantic Avenue	Project No.: 100681202
Location: Brooklyn, NY	Elevation and Datum: Approx. 80' NAVD88
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 3/18/20 / Date Finished: 3/18/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft / Rock Depth: --
Size and Type of Bit: 2-inch Direct Push	Number of Samples: Disturbed -- / Undisturbed -- / Core --
Casing Diameter (in): 2 inch / Casing Depth (ft): --	Water Level (ft.): First -- / Completion -- / 24 HR. --
Casing Hammer: -- / Weight (lbs): -- / Drop (in): --	Drilling Foreman: Tom Seickel
Sampler: 1.75" x 5' Acetate Macrocore Liner	Field Engineer: Molly Gutelius
Sampler Hammer: -- / Weight (lbs): -- / Drop (in): --	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dark brown f-m SAND, trace fine gravel, brick fragments, Asphalt (moist) [FILL]	0		MACROCORE	36		0.0	Started drilling on 3/18/2020.
			1					0.0	
			2					0.0	012_LSB-1A collected from 2- to 4-feet bgs. Discrete VOCs collected from 2.5- to 3-feet bgs. Discrete PFAS collected from 3- to 3.5-feet bgs.
			3					0.0	
			4					0.0	
		Brown f-m SAND, trace f-m gravel (moist)	5		MACROCORE	48		0.0	
		Brown f-m SAND, trace f-m gravel (wet)	6					0.0	
			7					0.0	
			8					0.0	
			9					0.0	
			10		MACROCORE	60		0.0	
		Brown f-m SAND, trace silt, trace f-m gravel (moist)	11					0.0	
			12					0.0	
			13					0.0	
			14					0.0	
			15		MACROCORE	48		0.0	
			16					0.0	013_LSB-1B collected from 16- to 18-feet bgs. Discrete VOCs collected from 17- to 17.5-feet bgs. Discrete PFAS collected from 17.5- to 18-feet bgs.
			17					0.0	
			18					0.0	
			19					0.0	Bottom of boring at 20-feet bgs on 3/18/2020.
			20					0.0	

LANGAN

Log of Boring **LSB-2** Sheet 1 of 1

Project: 1921 Atlantic Avenue	Project No.: 100681202
Location: Brooklyn, NY	Elevation and Datum: Approx. 80' NAVD88
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 3/18/20 / Date Finished: 3/18/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft / Rock Depth: --
Size and Type of Bit: 2-inch Direct Push	Number of Samples: Disturbed -- / Undisturbed -- / Core --
Casing Diameter (in): 2 inch / Casing Depth (ft): --	Water Level (ft.): First -- / Completion -- / 24 HR. --
Casing Hammer: -- / Weight (lbs): -- / Drop (in): --	Drilling Foreman: Tom Seickel
Sampler: 1.75" x 5' Acetate Macrocore Liner	Field Engineer: Molly Gutelius
Sampler Hammer: -- / Weight (lbs): -- / Drop (in): --	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dark brown f-m SAND, trace fine gravel, brick fragments, Asphalt (moist) [FILL]	0		Macrocore	36		0.0	Started Drilling on 3/18/2020.
			1					0.0	
								0.0	
			2					0.0	014_LSB-2A collected from 2- to 4-feet bgs. Discrete VOCs collected from 2.5- to 3-feet. Discrete PFAS collected from 3- to 3.5-feet bgs.
								0.0	
			3					0.0	
								0.0	
		Brown f-m SAND, trace f-m gravel (moist)	4					0.0	
								0.0	
		Brown f-m SAND, trace f-m gravel (wet)	5		Macrocore	48		0.0	
								0.0	
			6					0.0	
								0.0	
			7					0.0	
								0.0	
			8					0.0	
								0.0	
			9					0.0	
								0.0	
		Brown f-m SAND, trace silt, trace f-m gravel (moist)	10		Macrocore	60		0.0	
								0.0	
			11					0.0	
								0.0	
			12					0.0	
								0.0	
			13					0.0	
								0.0	
			14					0.0	
								0.0	
			15		Macrocore	48		0.0	015_LSB-2B collected from 16- to 18-feet bgs. Discrete VOCs collected from 17- to 17.5-feet. Discrete PFAS collected from 17.5- to 18-feet bgs.
								0.0	
			16					0.0	
								0.0	
			17					0.0	
								0.0	
			18					0.0	
								0.0	
			19					0.0	Bottom of boring at 20-feet bgs on 3/18/2020.
								0.0	
			20						

LANGAN

Log of Boring **LSB-3** Sheet 1 of 1

Project: 1921 Atlantic Avenue	Project No.: 100681202
Location: Brooklyn, NY	Elevation and Datum: Approx. 82' NAVD88
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 3/17/20 / Date Finished: 3/17/20
Drilling Equipment: Geoprobe Sonic Rig	Completion Depth: 20 ft / Rock Depth: --
Size and Type of Bit: 4-inch Sonic Bit	Number of Samples: Disturbed -- / Undisturbed -- / Core --
Casing Diameter (in): 4 inch / Casing Depth (ft): --	Water Level (ft.): First -- / Completion -- / 24 HR. --
Casing Hammer: -- / Weight (lbs): -- / Drop (in): --	Drilling Foreman: Tom Seickel
Sampler: Dedicated Plastic Sonic Sleeve	Field Engineer: Molly Gutelius
Sampler Hammer: -- / Weight (lbs): -- / Drop (in): --	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)
		Brown f-m SAND, trace f-m gravel, brick fragments (dry) [FILL]	0		Macrocore	60		0.0
								0.0
			1					0.1
								0.1
			2					0.2
								0.0
		Grayish brown fine SAND, trace silt, trace fine gravel (dry)	3					0.2
								0.2
			4					0.0
								0.1
			5		Macrocore	60		0.0
								0.3
			6					0.3
								0.2
			7					0.3
								0.2
			8					0.4
								0.4
			9					0.5
								0.2
			10		Macrocore	60		0.2
								0.3
			11					0.3
								0.2
			12					0.2
								0.3
			13					0.2
								0.3
			14					0.3
								0.3
			15		Macrocore	60		0.4
								0.4
			16					0.5
								0.3
			17					0.3
								0.4
			18					0.2
								0.2
			19					0.4
								0.3
			20					

Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)

Started Drilling on 3/17/2020.

008_LSB-3A collected from 1- to 3-feet bgs. Discrete VOCs collected from 1.5- to 2-feet bgs. Discrete PFAS collected from 2- to 2.5-feet bgs.

009_LSB-3B collected from 16- to 18-feet bgs. Discrete VOCs collected from 17- to 17.5-feet bgs. Discrete PFAS collected from 17.5- to 18-feet bgs.

Bottom of boring at 20-feet bgs on 3/17/2020.

LANGAN

Log of Boring **LSB-4** Sheet 1 of 1

Project: 1921 Atlantic Avenue	Project No.: 100681202
Location: Brooklyn, NY	Elevation and Datum: Approx. 82' NAVD88
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 3/17/20 / Date Finished: 3/17/20
Drilling Equipment: Geoprobe Sonic Rig	Completion Depth: 20 ft / Rock Depth: --
Size and Type of Bit: 4-inch Sonic Bit	Number of Samples: Disturbed -- / Undisturbed -- / Core --
Casing Diameter (in): 4 inch / Casing Depth (ft): --	Water Level (ft.): First -- / Completion -- / 24 HR. --
Casing Hammer: -- / Weight (lbs): -- / Drop (in): --	Drilling Foreman: Tom Seickel
Sampler: Dedicated Plastic Sonic Sleeve	Field Engineer: Molly Gutelius
Sampler Hammer: -- / Weight (lbs): -- / Drop (in): --	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)
		Brown f-c SAND, trace f-c gravel (dry) [FILL]	0		Macrocore	60		0.0
			1					0.0
			2					0.0
			3					0.0
		Brown f-m SAND, trace silt, trace fine gravel (dry)	4					0.1
			5					0.1
			6		Macrocore	60		0.0
			7					0.0
			8					0.0
			9					0.0
			10					0.0
			11					0.0
			12					0.0
			13					0.1
			14					0.1
			15		Macrocore	60		0.0
			16					0.0
			17					0.0
			18					0.0
			19					0.2
			20					0.1
								0.0
								0.0
								0.2
								0.3
								0.3
								0.2
								0.0
								0.0
								0.0
								0.2
								0.2
								0.3
								0.2
								0.5
								0.3
								0.2

Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)

Started Drilling on 3/17/2020.

006_LSB-4A collected from 1- to 3-feet bgs. Discrete VOCs collected from 1.5- to 2-feet bgs. Discrete PFAS collected from 2- to 2.5-feet bgs.

007_LSB-4B collected from 16- to 18-feet bgs. Discrete VOCs collected from 16.5- to 17-feet bgs. Discrete PFAS collected from 17- to 17.5-feet bgs.

Bottom of boring at 20-feet bgs on 3/17/2020.

LANGAN

Log of Boring **LSB-5** Sheet 1 of 2

Project: 1921 Atlantic Avenue	Project No.: 100681202
Location: Brooklyn, NY	Elevation and Datum: Approx. 80' NAVD88
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 3/17/20 / Date Finished: 3/17/20
Drilling Equipment: Geoprobe Sonic Rig	Completion Depth: 22 ft / Rock Depth: --
Size and Type of Bit: 4-inch Sonic Bit	Number of Samples: Disturbed -- / Undisturbed -- / Core --
Casing Diameter (in): 4 inch / Casing Depth (ft): --	Water Level (ft.): First -- / Completion -- / 24 HR. --
Casing Hammer: -- / Weight (lbs): -- / Drop (in): --	Drilling Foreman: Tom Seickel
Sampler: Dedicated Plastic Sonic Sleeve	Field Engineer: Molly Gutelius
Sampler Hammer: -- / Weight (lbs): -- / Drop (in): --	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)
		Brown f-c SAND, trace f-m gravel, brick fragments (dry) [FILL]	0		Macrocore	60		0.0
			1					0.0
								0.2
			2					0.2
								0.0
			3					0.0
								0.2
			4					0.2
								0.1
			5					0.1
		Brown f-m SAND, trace silt, trace fine gravel (dry)			Macrocore	60		0.2
			6					0.2
								0.4
			7					0.1
								0.0
			8					0.0
								0.2
			9					0.5
								0.0
			10					0.3
					Macrocore	60		0.4
			11					0.3
								0.4
			12					0.2
								0.1
			13					0.1
								0.3
			14					0.4
								0.6
			15					0.5
								0.0
			16					0.2
								0.2
			17					0.0
								0.3
			18		Macrocore	60		0.4
								0.5
			19					0.4
		Tannish brown f-m SAND, trace fine gravel (dry)						0.5
			20					0.2

Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)

Started Drilling on 3/17/2020.

004_LSB-5A collected from 2- to 4-feet bgs. Discrete VOCs collected from 2- to 2.5-feet bgs. Discrete PFAS collected from 2.5- to 3-feet bgs.

LANGAN

Log of Boring **LSB-5** Sheet 2 of 2

Project	Project No.
1921 Atlantic Avenue	100681202
Location	**Elevation and Datum**
Brooklyn, NY	Approx. 80' NAVD88

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
			20		Macrocore	24		0.0	005_LSB-5B collected from 20- to 22-feet bgs. Discrete VOCs collected from 20- to 20.5-feet bgs. Discrete PFAS collected from 20.5- to 21-feet bgs.
			21					0.4	
			22					0.3	Bottom of boring at 22-feet bgs on 3/17/2020.
			23					0.5	
			24						
			25						
			26						
			27						
			28						
			29						
			30						
			31						
			32						
			33						
			34						
			35						
			36						
			37						
			38						
			39						
			40						
			41						
			42						
			43						
			44						
			45						

LANGAN

Log of Boring **LSB-6** Sheet 1 of 1

Project: 1921 Atlantic Avenue	Project No.: 100681202
Location: Brooklyn, NY	Elevation and Datum: Approx. 80' NAVD88
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 3/17/20 / Date Finished: 3/17/20
Drilling Equipment: Geoprobe Sonic Rig	Completion Depth: 20 ft / Rock Depth: --
Size and Type of Bit: 4-inch Sonic Bit	Number of Samples: Disturbed -- / Undisturbed -- / Core --
Casing Diameter (in): 4 inch / Casing Depth (ft): --	Water Level (ft.): First -- / Completion -- / 24 HR. --
Casing Hammer: -- / Weight (lbs): -- / Drop (in): --	Drilling Foreman: Tom Seickel
Sampler: Dedicated Plastic Sonic Sleeve	Field Engineer: Molly Gutelius
Sampler Hammer: -- / Weight (lbs): -- / Drop (in): --	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown f-c SAND, trace f-c gravel (dry)[FILL]	0					0.0	Started Drilling on 3/17/2020.
								0.0	
		Gray f-m SAND, some concrete (dry) [FILL]	1					0.0	
								0.1	
		Brown f-m SAND, trace silt, trace f-c gravel, trace concrete (dry) [FILL]	2		Macrocore	60		0.1	001_LSB-6A collected from 2- to 4-feet bgs. Discrete VOCs collected from 2.5- to 3-feet bgs. Discrete PFAS collected from 3- to 3.5-feet bgs.
			3					0.3	
								0.5	
			4					0.4	
								0.4	
								0.4	
		Brown fine SAND, trace silt (moist)	5					0.0	
								0.0	
			6					0.0	
								0.1	
			7		Macrocore	60		0.1	
								0.1	
			8					0.0	
								0.0	
			9					0.1	
								0.1	
			10					0.0	
								0.0	
			11					0.1	
								0.1	
			12		Macrocore	60		0.1	
								0.0	
			13					0.1	
								0.0	
			14					0.0	
								0.1	
			15					0.0	
								0.4	
			16					0.5	002_LSB-6B collected from 16- to 18-feet bgs. Discrete VOCs collected from 16- to 16.5-feet bgs. Discrete PFAS collected from 16.5- to 17-feet bgs.
								0.4	
			17		Macrocore	60		0.3	
								0.3	
			18					0.2	
								0.2	
			19					0.2	
								0.2	Bottom of boring at 20-feet bgs on 3/17/2020.
			20						

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Log of Boring **LMW-1** Sheet 1 of 4

Project: 1921 Atlantic Avenue	Project No.: 100681202
Location: Brooklyn, NY	Elevation and Datum: 79.99' NAVD88
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 3/16/20 / Date Finished: 3/16/20
Drilling Equipment: Geoprobe Sonic Rig	Completion Depth: 80 ft / Rock Depth: --
Size and Type of Bit: 4-inch Sonic Bit	Number of Samples: Disturbed -- / Undisturbed -- / Core --
Casing Diameter (in): 4 inch / Casing Depth (ft): --	Water Level (ft.): First ▽ 70 / Completion ▼ -- / 24 HR. ▼ --
Casing Hammer: -- / Weight (lbs): -- / Drop (in): --	Drilling Foreman: Tom Seickel
Sampler: Dedicated Plastic Sonic Sleeve	Field Engineer: Molly Gutelius
Sampler Hammer: -- / Weight (lbs): -- / Drop (in): --	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	+80.0	Brown f-c SAND, trace f-m gravel, brick fragments (moist) [FILL]	0					0.0	Started Drilling on 3/16/2020.
			1					0.0	
								0.0	
								0.0	
	+78.0	Gray f-m SAND, trace f-m gravel (moist) [FILL]	2		Macrocore	60		0.0	
								0.0	
			3					0.0	
								0.0	
	+76.0	Brown fine SAND, trace silt, trace f-c gravel (moist)	4					0.0	
								0.0	
	+75.0	Brown f-m SAND, trace silt (moist)	5					0.0	
								0.0	
			6					0.0	
								0.0	
			7		Macrocore	60		0.0	
								0.0	
	+72.0	Tannish brown fine SAND, trace silt (moist)	8					0.0	
								0.0	
			9					0.3	
								0.3	
	+70.0	Gray fine SAND, trace fine gravel (moist)	10					0.0	
								0.0	
			11					0.0	
								0.0	
			12		Macrocore	60		0.0	
								0.0	
			13					0.0	
								0.0	
			14					0.0	
								0.0	
	+65.0	Dark gray to gray f-m SAND, trace silt (moist)	15					0.0	
								0.0	
			16					0.0	
								0.0	
			17		Macrocore	60		0.4	
								0.2	
			18					0.4	
								0.0	
			19					0.1	
								0.1	
	+60.0		20						

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Log of Boring **LMW-1** Sheet 2 of 4

Project	Project No.
1921 Atlantic Avenue	100681202
Location	**Elevation and Datum**
Brooklyn, NY	79.99' NAVD88

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	+60.0	Brown f-m SAND (moist)	20		Macrocore	60		0.0	
								0.0	
			21					0.0	
								0.0	
			22					0.0	
								0.0	
			23					0.0	
								0.0	
			24					0.0	
								0.0	
			25					0.0	
					Macrocore	60		0.0	
			26					0.0	
								0.0	
	+53.0		27					0.0	
		Grayish brown f-m SAND, trace silt (moist)						0.0	
			28					0.0	
								0.0	
			29					0.0	
								0.0	
			30					0.0	
					Macrocore	60		0.0	
			31					0.1	
								0.1	
			32					0.0	
								0.0	
			33					0.0	
								0.0	
			34					0.0	
								0.0	
			35					0.0	
					Macrocore	60		0.0	
			36					0.4	
								0.7	
			37					0.5	
								0.6	
			38					0.3	
								0.0	
			39					0.0	
								0.0	
			40					0.3	
					Macrocore	60		0.3	
			41					0.4	
								0.4	
			42					0.4	
								0.5	
			43					0.5	
								1.2	
			44					0.9	
								0.3	
			45						

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Log of Boring **LMW-1** Sheet 3 of 4

Project	Project No.
1921 Atlantic Avenue	100681202
Location	**Elevation and Datum**
Brooklyn, NY	79.99' NAVD88

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	+35.0		45		Macrocore	60		0.3	
								0.3	
			46					0.2	
								0.4	
			47					0.3	
								0.3	
			48					0.3	
								0.3	
			49					0.4	
								0.5	
			50		Macrocore	60		0.0	
								0.3	
			51					0.2	
								0.3	
			52					0.2	
								0.2	
			53					0.3	
								0.4	
			54					0.5	
								0.4	
	+25.0	Brown f-c SAND, trace fine gravel (dry)	55		Macrocore	60		0.0	
								0.4	
			56					0.4	
								0.4	
			57					0.5	
								0.3	
			58					0.0	
								0.2	
			59					0.0	
								0.2	
			60		Macrocore	60		0.0	
								0.3	
			61					0.2	
								0.3	
			62					0.0	
								0.1	
			63					0.4	
								0.3	
			64					0.2	
								0.2	
			65		Macrocore	60		0.3	
								0.3	
			66					0.4	
								0.6	
			67					0.6	
								0.7	
			68					0.7	
								1.0	
			69					1.2	
								0.9	
	+10.0		70						

▽

\\LANGAN.COM\DATA\PAR\DATA2\100681201\PROJECT DATA_DISCIPLINE\ENVIRONMENTAL\GINTLOGS\100681201_ENTERPRISE.GPJ ... 3/31/2020 4:11:25 PM ... Report: Log - LANGAN

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Log of Boring **LMW-1** Sheet 4 of 4

Project	Project No.
1921 Atlantic Avenue	100681202
Location	**Elevation and Datum**
Brooklyn, NY	79.99' NAVD88

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	+10.0	Brown f-c SAND, trace fine gravel (moist)	70		Macrocore	60		0.0	
			71					0.0	
			72					0.1	
			73					0.1	
			74					0.2	
			75					0.0	
			76					0.0	
			77					0.2	
			78					0.0	
			79					0.0	
	0.0		80		Macrocore	60		0.0	
			81					0.0	
			82					0.1	
			83					0.2	
			84					0.2	
			85					0.3	
			86					0.2	
			87					0.2	
			88					0.0	
			89						
			90						
			91						
			92						
			93						
			94						
			95						

Bottom of boring at 80-feet bgs on 3/16/2020.

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WELL CONSTRUCTION SUMMARY

Well No. LMW-1

Project: 1921 Atlantic Avenue	Project No.: 100681202
Location: Brooklyn, NY	Elevation And Datum: 80.34 NAVD88
Drilling Agency: AARCO Environmental Services, Corp.	Date Started: 3/16/2020 / Date Finished: 3/16/2020
Drilling Equipment: Geoprobe Sonic Rig	Driller: Tom Seickel
Size And Type of Bit: 4-inch Sonic Bit	Inspector: Molly Gutelius

Method of Installation

Drilled to 80-feet bgs. 15-feet of 2-inch 10-slot schedule 40 PVC screen installed. 65-feet of 2-inch solid schedule 40 PVC riser installed. No. 2 sand backfilled to 63-feet bgs. Bentonite seal installed from 61- to 63-feet bgs. Soil cuttings backfilled above seal. Riser cut to approximately 0.35-feet bgs. Manhole installed and secured with concrete.

Method of Well Development

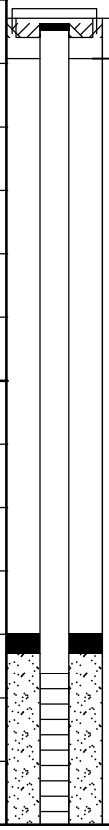
Driller used whale pump with dedicated tubing to purge water until sediment free; approximately 15 gallons purged.

Type of Casing: PVC Schedule 40	Diameter: 2 inch	Type of Backfill Material: Native Material	
Type of Screen: 0.010-slot	Diameter: 2 inch	Type of Seal Material: Bentonite	
Borehole Diameter: 4 inch		Type of Filter Material: #2 Sand	

	Elevation	Depth
Top of Casing	79.99'	0.35' bgs
Top of Seal	19.34'	61' bgs
Top of Filter	17.34'	63' bgs
Top of Screen	15.34'	65' bgs
Bottom of Filter	0.34'	80' bgs
Bottom of Well	-0.01'	80' bgs
Screen Length: 15.0'		Slot Size: 10-slot

GROUNDWATER ELEVATIONS (ft)
(Measured from the Top of Casing)

Elevation	DTW	Date
8.69'	71.30'	3/22/2020 9:20:00 AM



Soil / Rock Classification	Depth (ft)
	0.35
FILL	
NATIVE	4
	61
	63
	65
	80

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WELL CONSTRUCTION SUMMARY

Well No. LMW-2

Project: 1921 Atlantic Avenue	Project No.: 100681202
Location: Brooklyn, NY	Elevation And Datum: 77.56 NAVD88
Drilling Agency: AARCO Environmental Services, Corp.	Date Started: 3/17/2020 / Date Finished: 3/17/2020
Drilling Equipment: Geoprobe Sonic Rig	Driller: Tom Seickel
Size And Type of Bit: 4-inch Sonic Bit	Inspector: Molly Gutelius

Method of Installation

Drilled to 77-feet bgs. 15-feet of 2-inch 10-slot schedule 40 PVC screen installed. 62-feet of 2-inch solid schedule 40 PVC riser installed. No. 2 sand backfilled to 60-feet bgs. Bentonite seal installed from 58- to 60-feet bgs. Soil cuttings backfilled above seal. Riser cut to approximately 0.35-feet bgs. Manhole installed and secured with concrete.

Method of Well Development

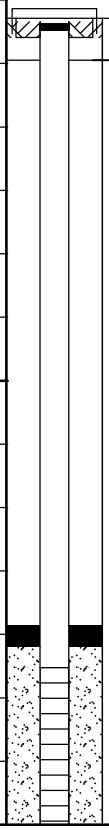
Driller used whale pump with dedicated tubing to purge water until sediment free; approximately 15 gallons purged.

Type of Casing: PVC Schedule 40	Diameter: 2 inch	Type of Backfill Material: Native Material	
Type of Screen: 0.010-slot	Diameter: 2 inch	Type of Seal Material: Bentonite	
Borehole Diameter: 4 inch		Type of Filter Material: #2 Sand	

	Elevation	Depth
Top of Casing	77.21'	0.35' bgs
Top of Seal	19.56'	58' bgs
Top of Filter	17.56'	60' bgs
Top of Screen	15.56'	62' bgs
Bottom of Filter	0.56'	77' bgs
Bottom of Well	0.21'	77' bgs
Screen Length: 15.0'		Slot Size: 10-slot

GROUNDWATER ELEVATIONS (ft)
(Measured from the Top of Casing)

Elevation	DTW	Date
6.76'	70.45'	3/22/2020 4:05:00 PM



Soil / Rock Classification	Depth (ft)
FILL	0.35
NATIVE	4
	58
	60
	62
	77

APPENDIX C

Groundwater Sampling Field Logs

LOW FLOW SAMPLING FIELD PARAMETER MEASUREMENTS

Project:	1921 Atlantic Ave	**Site Location:**	Brooklyn, NY	**Well No:**	LMW-1	**Date:**	3/22/2020
Job Number:	100681202	**Weather:**	45, Sunny	**Sampler(s):**	MG		
Initial DTW (ft):	71.30	**Well Depth (ft):**	80	**Pump Depth (ft):**	~73		
Background PID (ppm):	0.00	**Well PID (ppm):**	0.3	**Screen Interval (ft):**	65-80		
Water Quality Meter:	Horiba U -52	**Water Quality Meter ID:**	98KXKTKM	**Well Diameter (in):**	2		

TIME	TEMP. °C	pH (std. Units)	ORP (mV)	COND. (mS/cm)	Turbidity (NTU)	DO (mg/L)	DTW (ft)	Q (mL/m)	COLOR?	ODOR?	NOTES
9:10	---	---	---	---	---	---	---	200	---	---	Begin Purging
9:20	13.72	6.30	-462.0	0.689	58.2	0.43	---	200	clear	none	
9:25	14.06	6.31	-492.0	0.679	57.0	0.30	---	200	clear	none	
9:30	14.30	6.30	-495.0	0.697	52.2	0.22	---	200	clear	none	
9:35	14.40	6.29	-479.0	0.717	44.2	0.19	---	200	clear	none	
9:40	14.55	6.30	-441.0	0.757	27.6	0.21	---	200	clear	none	
9:45	14.58	6.30	-443.0	0.761	25.1	0.21	---	200	clear	none	
9:50	14.63	6.33	-428.0	0.795	10.8	0.26	---	200	clear	none	
9:55	14.65	6.32	-424	0.80	9.6	0.27	---	200	clear	none	
10:00	14.63	6.32	-425	0.80	10.1	0.26	---	200	clear	none	Stable
	+/- 3%	+/- 0.1 pH	+/- 10 mV	+/- 3%	+/- 10 NTU	+/- 10%	<0.3' drawdown				

Notes:
DTW readings were not collected due to PFAS sample collection

Sample Number:	029_LMW-1	Sample Time:	10:05	Sample Analyses:	TCL VOC, TCL SVOC, TCL Pesticides, TCL PCBs, Herbicides, Total and Dissolved TAL Metals, Cyanide, Hex/Trivalent Chromium, 1,4-Dioxane, PFAS
QA/QC Sample Number:	034_DUP-1	QA/QC Sample Time:	10:10	QA/QC Sample Analyses:	TCL VOC, TCL SVOC, TCL Pesticides, TCL PCBs, Herbicides, Total and Dissolved TAL Metals, Cyanide, Hex/Trivalent Chromium, 1,4-Dioxane, PFAS

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LOW FLOW SAMPLING FIELD PARAMETER MEASUREMENTS

Project:	1921 Atlantic Ave.	**Site Location:**	Brooklyn, NY	**Well No:**	LMW-2	**Date:**	3/22/2020
Job Number:	100681202	**Weather:**	45, Sunny	**Sampler(s):**	MG		
Initial DTW (ft):	70.45	**Well Depth (ft):**	80	**Pump Depth (ft):**	~73		
Background PID (ppm):	0.00	**Well PID (ppm):**	0.0	**Screen Interval (ft):**	62-77		
Water Quality Meter:	Horiba U -52	**Water Quality Meter ID:**	98KXKTKM	**Well Diameter (in):**	2		

TIME	TEMP. °C	pH (std. Units)	ORP (mV)	COND. (mS/cm)	Turbidity (NTU)	DO (mg/L)	DTW (ft)	Q (mL/m)	COLOR?	ODOR?	NOTES
16:05	---	---	---	---	---	---	---	200	---	---	Begin Purging
16:15	14.38	8.64	-644.0	0.560	515.0	0.75	---	200	light brown	none	
16:20	14.47	8.73	-636.0	0.547	432.0	0.59	---	200	light brown	none	
16:25	14.64	8.86	-663.0	0.511	232.0	0.00	---	200	light brown	none	
16:30	14.48	8.87	-661.0	0.502	75.0	0.00	---	200	clear	none	
16:35	14.54	8.85	-632.0	0.503	22.1	0.00	---	200	clear	none	
16:40	14.53	8.83	-630.0	0.508	23.4	0.00	---	200	clear	none	
16:45	14.62	8.77	-626.0	0.505	22.0	0.00	---	200	clear	none	Stable
	+/- 3%	+/- 0.1 pH	+/- 10 mV	+/- 3%	+/- 10 NTU	+/- 10%	<0.3' drawdown				

Notes:

DTW readings were not collected due to PFAS sample collection

Sample Number:	030_LMW-2	Sample Time:	16:50	Sample Analyses:	TCL VOC, TCL SVOC, TCL Pesticides, TCL PCBs, Herbicides, Total and Dissolved TAL Metals, Cyanide, Hex/Trivalent Chromium, 1,4-Dioxane, PFAS
QA/QC Sample Number:		QA/QC Sample Time:		QA/QC Sample Analyses:	

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LOW FLOW SAMPLING FIELD PARAMETER MEASUREMENTS

Project:	1921 Atlantic Ave.	**Site Location:**	Brooklyn, NY	**Well No:**	MW-002	**Date:**	3/22/2020
Job Number:	100681202	**Weather:**	45, Sunny	**Sampler(s):**	MG		
Initial DTW (ft):	70.84	**Well Depth (ft):**	80	**Pump Depth (ft):**	~73		
Background PID (ppm):	0.00	**Well PID (ppm):**	0.0	**Screen Interval (ft):**	65-80		
Water Quality Meter:	Horiba U -52	**Water Quality Meter ID:**	98KXKTKM	**Well Diameter (in):**	2		

TIME	TEMP. °C	pH (std. Units)	ORP (mV)	COND. (mS/cm)	Turbidity (NTU)	DO (mg/L)	DTW (ft)	Q (mL/m)	COLOR?	ODOR?	NOTES
14:25	---	---	---	---	---	---	---	200	---	---	Begin Purging
14:35	15.88	6.91	365.0	1.460	196.0	9.16	---	200	light brown	none	
14:40	15.20	7.11	355.0	1.410	101.0	9.02	---	200	light brown	none	
14:45	15.22	7.38	342.0	1.310	43.0	8.83	---	200	light brown	none	
14:50	15.45	7.53	338.0	1.287	22.4	8.64	---	200	clear	none	
14:55	15.48	7.62	328.0	1.265	15.6	8.45	---	200	clear	none	
15:00	15.52	7.65	320.0	1.258	7.8	8.26	---	200	clear	none	
15:05	15.47	7.65	313.0	1.251	5.6	8.07	---	200	clear	none	
15:10	15.55	7.67	304.0	1.25	2.3	7.88	---	200	clear	none	
15:15	15.64	7.68	298.0	1.24	0.0	7.69	---	200	clear	none	
15:20	15.69	7.68	295.0	1.24	0.0	7.50	---	200	clear	none	
15:25	15.62	7.68	290.0	1.24	0.0	7.31	---	200	clear	none	
	+/- 3%	+/- 0.1 pH	+/- 10 mV	+/- 3%	+/- 10 NTU	+/- 10%	<0.3' drawdown				

Notes:

DTW readings were not collected due to PFAS sample collection
Parameters did not reach stability. Samples were collected after 1 hour of purging.

Sample Number:	031_MW-002	Sample Time:	15:30	Sample Analyses:	TCL VOC, TCL SVOC, TCL Pesticides, TCL PCBs, Herbicides, Total and Dissolved TAL Metals, Cyanide, Hex/Trivalent Chromium, 1,4-Dioxane, PFAS
QA/QC Sample Number:		QA/QC Sample Time:		QA/QC Sample Analyses:	

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LOW FLOW SAMPLING FIELD PARAMETER MEASUREMENTS

Project:	1921 Atlantic Ave.	**Site Location:**	Brooklyn, NY	**Well No:**	MW-003	**Date:**	3/22/2020
Job Number:	100681202	**Weather:**	45, Sunny	**Sampler(s):**	MG		
Initial DTW (ft):	71.83	**Well Depth (ft):**	80	**Pump Depth (ft):**	~78		
Background PID (ppm):	0.00	**Well PID (ppm):**	0.5	**Screen Interval (ft):**	70-85		
Water Quality Meter:	Horiba U -52	**Water Quality Meter ID:**	98KXKTKM	**Well Diameter (in):**	2		

TIME	TEMP. °C	pH (std. Units)	ORP (mV)	COND. (mS/cm)	Turbidity (NTU)	DO (mg/L)	DTW (ft)	Q (mL/m)	COLOR?	ODOR?	NOTES
13:00	---	---	---	---	---	---	---	200	---	---	Begin Purging
13:10	13.25	7.56	287.0	1.240	0.0	6.27	---	200	clear	none	
13:15	13.33	7.60	289.0	1.380	0.0	6.05	---	200	clear	none	
13:20	13.48	7.52	291.0	1.540	0.0	5.97	---	200	clear	none	
13:25	13.67	7.42	299.0	1.750	0.0	5.83	---	200	clear	none	
13:30	13.80	7.40	312.0	1.770	0.0	5.84	---	200	clear	none	
13:35	13.79	7.42	313.0	1.770	0.0	5.85	---	200	clear	none	
13:40	13.86	7.38	322.0	1.780	0.0	5.77	---	200	clear	none	Stable
	+/- 3%	+/- 0.1 pH	+/- 10 mV	+/- 3%	+/- 10 NTU	+/- 10%	<0.3' drawdown				

Notes:

DTW readings were not collected due to PFAS sample collection

Sample Number:	032_MW-003	Sample Time:	13:45	Sample Analyses:	TCL VOC, TCL SVOC, TCL Pesticides, TCL PCBs, Herbicides, Total and Dissolved TAL Metals, Cyanide, Hex/Trivalent Chromium, 1,4-Dioxane, PFAS
QA/QC Sample Number:		QA/QC Sample Time:		QA/QC Sample Analyses:	

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LOW FLOW SAMPLING FIELD PARAMETER MEASUREMENTS

Project:	1921 Atlantic Ave.	**Site Location:**	Brooklyn, NY	**Well No:**	MW-004	**Date:**	3/22/2020
Job Number:	100681202	**Weather:**	45, Sunny	**Sampler(s):**	MG		
Initial DTW (ft):	70.45	**Well Depth (ft):**	80	**Pump Depth (ft):**	~73		
Background PID (ppm):	0.00	**Well PID (ppm):**	0.0	**Screen Interval (ft):**	65-80		
Water Quality Meter:	Horiba U -52	**Water Quality Meter ID:**	98KXKTKM	**Well Diameter (in):**	2		

TIME	TEMP. °C	pH (std. Units)	ORP (mV)	COND. (mS/cm)	Turbidity (NTU)	DO (mg/L)	DTW (ft)	Q (mL/m)	COLOR?	ODOR?	NOTES
10:45	---	---	---	---	---	---	---	200	---	---	Begin Purging
10:55	10.09	6.42	-38.0	1.060	7.7	5.74	---	200	clear	none	
11:00	10.13	6.50	-14.0	1.100	4.0	4.45	---	200	clear	none	
11:05	10.44	6.56	2.0	2.110	0.0	4.40	---	200	clear	none	
11:10	10.90	6.51	59.0	2.230	0.0	4.37	---	200	clear	none	
11:15	11.03	6.37	87.0	2.280	0.0	4.19	---	200	clear	none	
11:20	11.18	6.34	105.0	2.280	0.0	4.07	---	200	clear	none	
11:25	11.28	6.31	106.0	2.270	0.0	4.00	---	200	clear	none	
11:30	11.33	6.33	110	2.27	0.0	4.01	---	200	clear	none	Stable
	+/- 3%	+/- 0.1 pH	+/- 10 mV	+/- 3%	+/- 10 NTU	+/- 10%	<0.3' drawdown				

Notes:

DTW readings were not collected due to PFAS sample collection

Sample Number:	035_MW-004	Sample Time:	11:35	Sample Analyses:	TCL VOC, TCL SVOC, TCL Pesticides, TCL PCBs, Herbicides, Total and Dissolved TAL Metals, Cyanide, Hex/Trivalent Chromium, 1,4-Dioxane, PFAS
QA/QC Sample Number:		QA/QC Sample Time:		QA/QC Sample Analyses:	

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APPENDIX D

Soil Vapor Sampling Field Logs

SUMMA CANISTER SAMPLING FIELD DATA SHEET

Site: 1921 Atlantic Avenue, Brooklyn, NY

Samplers: MG

Date: 3/20/2020

Sample #	019_LSV-1	020_DUP-1	021_LSV-2	022_LSV-3	023_LSV-4
Location	LSV-1	LSV 1	LSV-2	LSV-3	LSV-4
Summa Canister ID	16696	28849	23997	24058	20944
Flow Controller ID	Y48	3542	Y39	Y43	7270
Sample Depth (b.g.s.)	3	3	4	2	2
Additional Tubing Added	NO/ (YES) - How much ~2	NO/ (YES) - How much ~2	NO/ (YES) - How much ~2	NO/ (YES) - How much ~2	NO/ (YES) - How much ~2
Purge Time (Start)	7:23	7:23	9:20	10:00	8:45
Purge Time (Stop)	7:28	7:28	9:25	10:05	8:50
Total Purge Time (min)	5	5	5	5	5
Purge Volume	1 L	1 L	1 L	1 L	1 L
PID Test of Purge Air	244 ppb	244 ppb	1535 ppb	247 ppb	190 ppb
Initial Tracer Gas Results in sampling line	0%	0%	0%	0%	0%
Initial Tracer Gas Results in shroud	97.8%	97.8%	94.5%	96.8%	94.7%
Pressure Gauge - before sampling	-30.0	-29.76	-27.0	-30	-28.9
Sample Time (Start)	7:35	7:35	9:30	10:40	8:55
Sample Time (Stop)	9:35	9:35	11:17	13:00	10:47
Total Sample Time (min)	120	120	107	140	112
Pressure Gauge - after sampling	-4.91	-4.83	-4.83	-4	-3.3
Sample Volume	6 L	6 L	6 L	6 L	6 L
Canister Pressure Went to Ambient Pressure?	YES / (NO)	YES / (NO)	YES / (NO)	YES / (NO)	YES / (NO)
Final Tracer Gas Results in sampling line	--	--	--	--	--
Final Tracer Gas Results in shroud	--	--	--	--	--
Associated Ambient Air Sample Number	028_Ambient-1	028_Ambient-1	028_Ambient-1	028_Ambient-1	028_Ambient-1
Weather 24 hours before and during sampling	40s-50s, overcast, rain				
General Comments					

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SUMMA CANISTER SAMPLING FIELD DATA SHEET

Site: 1921 Atlantic Avenue, Brooklyn, NY

Samplers: MG

Date: 3/20/2020

Sample #	024_LSV-5	025_LSV-6	026_LSV-7	027_LSV-8	028_Ambient-1
Location	LSV-5	LSV-6	LSV-7	LSV-8	---
Summa Canister ID	23156	28310	Y1127	18309	23801
Flow Controller ID	7268	Y47	Y20	Y16	7422
Sample Depth (b.g.s.)	2	3	1.5	4	--
Additional Tubing Added	NO/ YES - How much ~2	NO/ YES - How much ~2	NO/ YES - How much ~2	NO/ YES - How much ~2	NO/ YES - How much
Purge Time (Start)	8:25	7:55	7:40	9:00	
Purge Time (Stop)	8:30	8:00	7:45	9:05	
Total Purge Time (min)	5	5	5	5	
Purge Volume	1 L	1 L	1 L	1 L	
PID Test of Purge Air	172 ppb	120 ppb	151 ppb	190 ppb	
Initial Tracer Gas Results in sampling line	0%	0%	0%	0%	
Initial Tracer Gas Results in shroud	94.6%	95.0%	99.4%	99.6%	
Pressure Gauge - before sampling	-29.38	-29.5	-30.1	-28.6	-30.1
Sample Time (Start)	8:35	8:10	7:50	9:10	7:15
Sample Time (Stop)	10:30	10:08	9:58	11:00	15:15
Total Sample Time (min)	115	118	128	110	480
Pressure Gauge - after sampling	-4.44	-3.52	-4.6	-4.07	4
Sample Volume	6 L	6 L	6 L	6 L	6 L
Canister Pressure Went to Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO
Final Tracer Gas Results in sampling line	--	--	--	--	--
Final Tracer Gas Results in shroud	--	--	--	--	--
Associated Ambient Air Sample Number	028_Ambient-1	028_Ambient-1	028_Ambient-1	028_Ambient-1	--
Weather 24 hours before and during sampling	40s-50s, overcast, rain				
General Comments					

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APPENDIX E

Laboratory Data Reports

APPENDIX F

Data Usability Summary Reports

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

2700 Kelly Road, Suite 200 Warrington, PA 18976 T: 215.491.6500 F: 215.491.6501
Mailing Address: P.O. Box 1569 Doylestown, PA 18901

To: Allyson Kritzer, Langan Senior Staff Engineer

From: Emily Strake, Langan Senior Project Chemist

Date: March 30, 2020

Re: Data Usability Summary Report
For 1921 Atlantic Avenue
Brooklyn, NY
March 2020 Soil Samples
Langan Project No.: 100681201

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of soil samples collected in March 2020 by Langan Engineering and Environmental Services ("Langan") at the 1921 Atlantic Avenue site ("the site"). The samples were analyzed by York Analytical Laboratories, Inc. (NYSDOH NELAP registration # 10854 and 12058) for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), per- and polyfluoroalkyl substances (PFAS), herbicides, polychlorinated biphenyls (PCBs), pesticides, metals including mercury (Hg), cyanide (CN), hexavalent chromium (CrVI), trivalent chromium (CrIII), and total solids (%S) by the methods specified below.

- VOCs by SW-846 Method 8260C
- SVOCs by SW-846 Method 8270D and 8270D SIM
- PFAS by USEPA Method 537M
- Herbicides by SW-846 Method 8151A
- PCBs by SW-846 Method 8082A
- Pesticides by SW-846 Method 8081B
- Metals by SW-846 Method 6020B
- Mercury by SW-846 Method 7473
- Cyanide by SW-846 Method 9012B
- Hexavalent Chromium by SW-846 Method 7196A
- Trivalent Chromium (calculated)
- Total Solids by Standard Method 2540G

Table 1, below, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

TABLE 1: SAMPLE SUMMARY

SDG	*Lab Sample ID*	*Client Sample ID*	*Sample Date*	*Analytical Parameters*
20C0787	20C0787-01	001_LSB-6A_20200317	3/17/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S
20C0787	20C0787-02	002_LSB-6B_20200317	3/17/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S
20C0787	20C0787-03	003_DUP-1_20200317	3/17/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S
20C0787	20C0787-04	004_LSB-5A_20200317	3/17/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S
20C0787	20C0787-05	005_LSB-5B_20200317	3/17/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S
20C0787	20C0787-06	006_LSB-4A_20200317	3/17/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S
20C0787	20C0787-07	007_LSB-4B_20200317	3/17/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S
20C0787	20C0787-08	008_LSB-3A_20200317	3/17/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S
20C0787	20C0787-09	009_LSB-3B_20200317	3/17/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S
20C0787	20C0787-10	010_EB-1_20200317	3/17/2020	PFAS
20C0787	20C0787-11	011_TB-1_20200317	3/17/2020	VOCs
20C0847	20C0847-01	012_LSB-1A_20200318	3/18/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S
20C0847	20C0847-02	013_LSB-1B_20200318	3/18/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S
20C0847	20C0847-03	014_LSB-2A_20200318	3/18/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII, %S

SDG	*Lab Sample ID*	*Client Sample ID*	*Sample Date*	*Analytical Parameters*
20C0847	20C0847-04	015_LSB-2B_20200318	3/18/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII,%S
20C0847	20C0847-05	016_FB-1_20200318	3/18/2020	VOCs, SVOCs, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, Cyanide, CrVI, CrIII,%S
20C0847	20C0847-06	017_EB-2_20200318	3/18/2020	PFAS
20C0847	20C0847-07	018_TB-2_20200318	3/18/2020	VOCs

Validation Overview

This data validation was performed in accordance with USEPA Region II Standard Operating Procedure (SOP) #HW-34A, "Trace Volatile Data Validation" (September 2016, Revision 1), USEPA Region II SOP #HW-33A, "Low/Medium Volatile Data Validation" (September 2016, Revision 1), USEPA Region II SOP #HW-35A, "Semivolatile Data Validation" (September 2016, Revision 1), USEPA Region II SOP #HW-17, "Validating Chlorinated Herbicides" (December 2010, Revision 3.1), USEPA Region II SOP #HW-37A, "Polychlorinated Biphenyl (PCB) Aroclor Data Validation" (June 2015, Revision 0), USEPA Region II SOP #HW-36A, "Pesticide Data Validation" (October 2016, Revision 1), USEPA Region II SOP #HW-3a, "ICP-AES Data Validation" (September 2016, Revision 1), USEPA Region II SOP #HW-3b, "ICP-MS Data Validation" (September 2016, Revision 1), USEPA Region II SOP #HW-3c, "Mercury and Cyanide Data Validation" (September 2016, Revision 1), the USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA-540-R-2017-002, January 2017), the USEPA Contract Laboratory Program "National Functional Guidelines for Inorganic Superfund Methods Data Review" (EPA-540-R-2017-001, January 2017) and the specifics of the methods employed.

EPA Method 537 was developed and validated for the analysis of finished drinking water from surface water and groundwater sources. Laboratories have modified Method 537 to enable the analysis of groundwater and soil, and to incorporate PFAS analytes not currently addressed by the promulgated method. NYSDOH offers certification for PFOA and PFOS in the drinking water category. Non-potable water and soil certification is not available; however, the method describes acceptable modifications. EPA recommends that modified methods be assessed relative to project goals and data quality objectives.

Validation includes review of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator. Items subject to review in this memorandum include holding times, sample preservation, sample extraction and digestion, instrument tuning, instrument calibration, laboratory blanks, laboratory control samples, system monitoring compounds, internal standard area counts, isotope dilution recoveries, matrix spike/spike duplicate recoveries, target compound identification and quantification, chromatograms, overall system performance, serial dilutions, dual column performance, field duplicate, trip blank, and field blank sample results.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

R – The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ – The analyte was not detected at a level greater than or equal to the reporting limit (RL); however, the reported RL is approximate and may be inaccurate or imprecise.
U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
NJ – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are not sufficiently valid and technically supportable to be used for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified.

TABLE 2: VALIDATOR-APPLIED QUALIFICATION

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
001_LSB-6A_20200317	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
001_LSB-6A_20200317	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
001_LSB-6A_20200317	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
001_LSB-6A_20200317	SW8260C	107-02-8	Acrolein	UJ
001_LSB-6A_20200317	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
001_LSB-6A_20200317	SW8260C	630-20-6	1,1,1,2-Tetrachloroethane	UJ
001_LSB-6A_20200317	SW8260C	67-64-1	Acetone	J
001_LSB-6A_20200317	SW8260C	75-25-2	Bromoform	R
001_LSB-6A_20200317	SW8260C	75-65-0	Tert-Butyl Alcohol	UJ
001_LSB-6A_20200317	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
001_LSB-6A_20200317	SW8270D	100-52-7	Benzaldehyde	UJ
001_LSB-6A_20200317	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
001_LSB-6A_20200317	SW8270D	117-81-7	Bis(2-Ethylhexyl) Phthalate	UJ
001_LSB-6A_20200317	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
001_LSB-6A_20200317	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
001_LSB-6A_20200317	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
001_LSB-6A_20200317	SW8270D	87-86-5	Pentachlorophenol	UJ
002_LSB-6B_20200317	SW8260C	630-20-6	1,1,1,2-Tetrachloroethane	UJ
002_LSB-6B_20200317	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
002_LSB-6B_20200317	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
002_LSB-6B_20200317	SW8260C	67-64-1	Acetone	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
002_LSB-6B_20200317	SW8260C	107-02-8	Acrolein	UJ
002_LSB-6B_20200317	SW6010B	7429-90-5	Aluminum	J
002_LSB-6B_20200317	SW6010B	7440-39-3	Barium	J
002_LSB-6B_20200317	SW8270D	100-52-7	Benzaldehyde	UJ
002_LSB-6B_20200317	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
002_LSB-6B_20200317	SW8270D	117-81-7	Bis(2-Ethylhexyl) Phthalate	UJ
002_LSB-6B_20200317	SW8260C	75-25-2	Bromoform	R
002_LSB-6B_20200317	SW6010B	7440-70-2	Calcium	J
002_LSB-6B_20200317	SW6010B	7440-47-3	Chromium, Total	J
002_LSB-6B_20200317	CALC_METALS	16065-83-1	Chromium, Trivalent	J
002_LSB-6B_20200317	SW6010B	7440-48-4	Cobalt	J
002_LSB-6B_20200317	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
002_LSB-6B_20200317	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
002_LSB-6B_20200317	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
002_LSB-6B_20200317	SW6010B	7439-89-6	Iron	J
002_LSB-6B_20200317	SW6010B	7439-95-4	Magnesium	J
002_LSB-6B_20200317	SW6010B	7439-96-5	Manganese	J
002_LSB-6B_20200317	SW6010B	7440-02-0	Nickel	J
002_LSB-6B_20200317	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
002_LSB-6B_20200317	SW8270D	87-86-5	Pentachlorophenol	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
002_LSB-6B_20200317	E537M	1763-23-1	Perfluorooctanesulfonic acid	J
002_LSB-6B_20200317	SW6010B	7440-09-7	Potassium	J
002_LSB-6B_20200317	SW6010B	7440-23-5	Sodium	J
002_LSB-6B_20200317	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
002_LSB-6B_20200317	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
002_LSB-6B_20200317	SW8260C	75-65-0	Tert-Butyl Alcohol	UJ
002_LSB-6B_20200317	SW6010B	7440-62-2	Vanadium	J
002_LSB-6B_20200317	SW6010B	7440-66-6	Zinc	J
003_DUP-1_20200317	SW8260C	630-20-6	1,1,1,2-Tetrachloroethane	UJ
003_DUP-1_20200317	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
003_DUP-1_20200317	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
003_DUP-1_20200317	SW8260C	67-64-1	Acetone	UJ
003_DUP-1_20200317	SW8260C	107-02-8	Acrolein	UJ
003_DUP-1_20200317	SW6010B	7429-90-5	Aluminum	J
003_DUP-1_20200317	SW6010B	7440-39-3	Barium	J
003_DUP-1_20200317	SW8270D	100-52-7	Benzaldehyde	UJ
003_DUP-1_20200317	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
003_DUP-1_20200317	SW8270D	117-81-7	Bis(2-Ethylhexyl) Phthalate	UJ
003_DUP-1_20200317	SW8260C	75-25-2	Bromoform	R
003_DUP-1_20200317	SW6010B	7440-70-2	Calcium	J

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
003_DUP-1_20200317	SW6010B	7440-47-3	Chromium, Total	J
003_DUP-1_20200317	CALC_METALS	16065-83-1	Chromium, Trivalent	J
003_DUP-1_20200317	SW6010B	7440-48-4	Cobalt	J
003_DUP-1_20200317	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
003_DUP-1_20200317	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
003_DUP-1_20200317	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
003_DUP-1_20200317	SW6010B	7439-89-6	Iron	J
003_DUP-1_20200317	SW6010B	7439-95-4	Magnesium	J
003_DUP-1_20200317	SW6010B	7439-96-5	Manganese	J
003_DUP-1_20200317	SW6010B	7440-02-0	Nickel	J
003_DUP-1_20200317	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
003_DUP-1_20200317	SW8270D	87-86-5	Pentachlorophenol	UJ
003_DUP-1_20200317	E537M	1763-23-1	Perfluorooctanesulfonic acid	UJ
003_DUP-1_20200317	SW6010B	7440-09-7	Potassium	J
003_DUP-1_20200317	SW6010B	7440-23-5	Sodium	J
003_DUP-1_20200317	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
003_DUP-1_20200317	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
003_DUP-1_20200317	SW8260C	75-65-0	Tert-Butyl Alcohol	UJ
003_DUP-1_20200317	SW6010B	7440-62-2	Vanadium	J
003_DUP-1_20200317	SW6010B	7440-66-6	Zinc	J

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
004_LSB-5A_20200317	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
004_LSB-5A_20200317	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
004_LSB-5A_20200317	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
004_LSB-5A_20200317	SW8081B	1024-57-3	Heptachlor Epoxide	UJ
004_LSB-5A_20200317	SW8081B	1031-07-8	Endosulfan Sulfate	UJ
004_LSB-5A_20200317	SW8081B	309-00-2	Aldrin	UJ
004_LSB-5A_20200317	SW8081B	319-84-6	Alpha BHC (Alpha Hexachlorocyclohexane)	UJ
004_LSB-5A_20200317	SW8081B	319-85-7	Beta Bhc (Beta Hexachlorocyclohexane)	UJ
004_LSB-5A_20200317	SW8081B	319-86-8	Delta Bhc (Delta Hexachlorocyclohexane)	UJ
004_LSB-5A_20200317	SW8081B	50-29-3	4,4'-DDT	J
004_LSB-5A_20200317	SW8081B	5103-71-9	Alpha Chlordane	J
004_LSB-5A_20200317	SW8081B	53494-70-5	Endrin Ketone	UJ
004_LSB-5A_20200317	SW8081B	5566-34-7	Gamma-Chlordane	J
004_LSB-5A_20200317	SW8081B	58-89-9	Gamma Bhc (Lindane)	UJ
004_LSB-5A_20200317	SW8081B	60-57-1	Dieldrin	UJ
004_LSB-5A_20200317	SW8081B	72-20-8	Endrin	UJ
004_LSB-5A_20200317	SW8081B	72-43-5	Methoxychlor	UJ
004_LSB-5A_20200317	SW8081B	72-54-8	4,4'-DDD	J
004_LSB-5A_20200317	SW8081B	72-55-9	4,4'-DDE	UJ
004_LSB-5A_20200317	SW8081B	7421-93-4	Endrin Aldehyde	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
004_LSB-5A_20200317	SW8081B	76-44-8	Heptachlor	UJ
004_LSB-5A_20200317	SW8260C	107-02-8	Acrolein	UJ
004_LSB-5A_20200317	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
004_LSB-5A_20200317	SW8260C	630-20-6	1,1,1,2-Tetrachloroethane	UJ
004_LSB-5A_20200317	SW8260C	67-64-1	Acetone	UJ
004_LSB-5A_20200317	SW8260C	75-25-2	Bromoform	R
004_LSB-5A_20200317	SW8260C	75-65-0	Tert-Butyl Alcohol	UJ
004_LSB-5A_20200317	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
004_LSB-5A_20200317	SW8270D	100-52-7	Benzaldehyde	UJ
004_LSB-5A_20200317	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
004_LSB-5A_20200317	SW8270D	117-81-7	Bis(2-Ethylhexyl) Phthalate	J
004_LSB-5A_20200317	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
004_LSB-5A_20200317	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
004_LSB-5A_20200317	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
004_LSB-5A_20200317	SW8270D	87-86-5	Pentachlorophenol	UJ
005_LSB-5B_20200317	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
005_LSB-5B_20200317	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
005_LSB-5B_20200317	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
005_LSB-5B_20200317	SW6010B	7429-90-5	Aluminum	J
005_LSB-5B_20200317	SW6010B	7439-89-6	Iron	J

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
005_LSB-5B_20200317	SW6010B	7439-92-1	Lead	J
005_LSB-5B_20200317	SW6010B	7439-95-4	Magnesium	J
005_LSB-5B_20200317	SW6010B	7439-96-5	Manganese	J
005_LSB-5B_20200317	SW6010B	7440-02-0	Nickel	J
005_LSB-5B_20200317	SW6010B	7440-09-7	Potassium	J
005_LSB-5B_20200317	SW6010B	7440-23-5	Sodium	J
005_LSB-5B_20200317	SW6010B	7440-36-0	Antimony	UJ
005_LSB-5B_20200317	SW6010B	7440-39-3	Barium	J
005_LSB-5B_20200317	SW6010B	7440-41-7	Beryllium	UJ
005_LSB-5B_20200317	SW6010B	7440-47-3	Chromium, Total	J
005_LSB-5B_20200317	SW6010B	7440-48-4	Cobalt	J
005_LSB-5B_20200317	SW6010B	7440-50-8	Copper	J
005_LSB-5B_20200317	SW6010B	7440-62-2	Vanadium	J
005_LSB-5B_20200317	SW6010B	7440-66-6	Zinc	J
005_LSB-5B_20200317	SW6010B	7440-70-2	Calcium	J
005_LSB-5B_20200317	SW8260C	107-02-8	Acrolein	UJ
005_LSB-5B_20200317	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
005_LSB-5B_20200317	SW8260C	630-20-6	1,1,1,2-Tetrachloroethane	UJ
005_LSB-5B_20200317	SW8260C	67-64-1	Acetone	UJ
005_LSB-5B_20200317	SW8260C	75-25-2	Bromoform	R

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
005_LSB-5B_20200317	SW8260C	75-65-0	Tert-Butyl Alcohol	UJ
005_LSB-5B_20200317	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
005_LSB-5B_20200317	SW8270D	100-52-7	Benzaldehyde	UJ
005_LSB-5B_20200317	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
005_LSB-5B_20200317	SW8270D	117-81-7	Bis(2-Ethylhexyl) Phthalate	UJ
005_LSB-5B_20200317	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
005_LSB-5B_20200317	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
005_LSB-5B_20200317	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
005_LSB-5B_20200317	SW8270D	87-86-5	Pentachlorophenol	UJ
005_LSB-5B_20200317	SW9010	57-12-5	Cyanide	UJ
006_LSB-4A_20200317	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
006_LSB-4A_20200317	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
006_LSB-4A_20200317	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
006_LSB-4A_20200317	SW8260C	107-02-8	Acrolein	UJ
006_LSB-4A_20200317	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
006_LSB-4A_20200317	SW8260C	630-20-6	1,1,1,2-Tetrachloroethane	UJ
006_LSB-4A_20200317	SW8260C	67-64-1	Acetone	UJ
006_LSB-4A_20200317	SW8260C	75-25-2	Bromoform	R
006_LSB-4A_20200317	SW8260C	75-65-0	Tert-Butyl Alcohol	UJ
006_LSB-4A_20200317	SW8260C	75-71-8	Dichlorodifluoromethane	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
006_LSB-4A_20200317	SW8270D	100-52-7	Benzaldehyde	UJ
006_LSB-4A_20200317	SW8270D	110-86-1	Pyridine	UJ
006_LSB-4A_20200317	SW8270D	111-91-1	Bis(2-Chloroethoxy) Methane	UJ
006_LSB-4A_20200317	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
006_LSB-4A_20200317	SW8270D	122-66-7	1,2-Diphenylhydrazine	UJ
006_LSB-4A_20200317	SW8270D	51-28-5	2,4-Dinitrophenol	UJ
006_LSB-4A_20200317	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
006_LSB-4A_20200317	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
006_LSB-4A_20200317	SW8270D	62-75-9	n-Nitrosodimethylamine	UJ
006_LSB-4A_20200317	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
006_LSB-4A_20200317	SW8270D	86-30-6	n-Nitrosodiphenylamine	UJ
006_LSB-4A_20200317	SW8270D	92-87-5	Benzidine	UJ
007_LSB-4B_20200317	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
007_LSB-4B_20200317	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
007_LSB-4B_20200317	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
007_LSB-4B_20200317	SW8260C	107-02-8	Acrolein	UJ
007_LSB-4B_20200317	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
007_LSB-4B_20200317	SW8260C	630-20-6	1,1,1,2-Tetrachloroethane	UJ
007_LSB-4B_20200317	SW8260C	67-64-1	Acetone	UJ
007_LSB-4B_20200317	SW8260C	74-87-3	Chloromethane	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
007_LSB-4B_20200317	SW8260C	75-01-4	Vinyl Chloride	UJ
007_LSB-4B_20200317	SW8260C	75-15-0	Carbon Disulfide	UJ
007_LSB-4B_20200317	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
007_LSB-4B_20200317	SW8260C	78-93-3	Methyl Ethyl Ketone (2-Butanone)	UJ
007_LSB-4B_20200317	SW8270D	100-52-7	Benzaldehyde	UJ
007_LSB-4B_20200317	SW8270D	110-86-1	Pyridine	UJ
007_LSB-4B_20200317	SW8270D	111-91-1	Bis(2-Chloroethoxy) Methane	UJ
007_LSB-4B_20200317	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
007_LSB-4B_20200317	SW8270D	122-66-7	1,2-Diphenylhydrazine	UJ
007_LSB-4B_20200317	SW8270D	51-28-5	2,4-Dinitrophenol	UJ
007_LSB-4B_20200317	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
007_LSB-4B_20200317	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
007_LSB-4B_20200317	SW8270D	62-75-9	n-Nitrosodimethylamine	UJ
007_LSB-4B_20200317	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
007_LSB-4B_20200317	SW8270D	86-30-6	n-Nitrosodiphenylamine	UJ
007_LSB-4B_20200317	SW8270D	92-87-5	Benzidine	UJ
008_LSB-3A_20200317	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
008_LSB-3A_20200317	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
008_LSB-3A_20200317	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
008_LSB-3A_20200317	SW8260C	107-02-8	Acrolein	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
008_LSB-3A_20200317	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
008_LSB-3A_20200317	SW8260C	630-20-6	1,1,1,2-Tetrachloroethane	UJ
008_LSB-3A_20200317	SW8260C	67-64-1	Acetone	UJ
008_LSB-3A_20200317	SW8260C	75-25-2	Bromoform	R
008_LSB-3A_20200317	SW8260C	75-65-0	Tert-Butyl Alcohol	UJ
008_LSB-3A_20200317	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
008_LSB-3A_20200317	SW8270D	100-52-7	Benzaldehyde	UJ
008_LSB-3A_20200317	SW8270D	110-86-1	Pyridine	UJ
008_LSB-3A_20200317	SW8270D	111-91-1	Bis(2-Chloroethoxy) Methane	UJ
008_LSB-3A_20200317	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
008_LSB-3A_20200317	SW8270D	122-66-7	1,2-Diphenylhydrazine	UJ
008_LSB-3A_20200317	SW8270D	51-28-5	2,4-Dinitrophenol	UJ
008_LSB-3A_20200317	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
008_LSB-3A_20200317	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
008_LSB-3A_20200317	SW8270D	62-75-9	n-Nitrosodimethylamine	UJ
008_LSB-3A_20200317	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
008_LSB-3A_20200317	SW8270D	86-30-6	n-Nitrosodiphenylamine	UJ
008_LSB-3A_20200317	SW8270D	92-87-5	Benzidine	UJ
009_LSB-3B_20200317	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
009_LSB-3B_20200317	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
009_LSB-3B_20200317	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
009_LSB-3B_20200317	SW8260C	107-02-8	Acrolein	UJ
009_LSB-3B_20200317	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
009_LSB-3B_20200317	SW8260C	630-20-6	1,1,1,2-Tetrachloroethane	UJ
009_LSB-3B_20200317	SW8260C	67-64-1	Acetone	UJ
009_LSB-3B_20200317	SW8260C	75-25-2	Bromoform	R
009_LSB-3B_20200317	SW8260C	75-65-0	Tert-Butyl Alcohol	UJ
009_LSB-3B_20200317	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
009_LSB-3B_20200317	SW8270D	100-52-7	Benzaldehyde	UJ
009_LSB-3B_20200317	SW8270D	110-86-1	Pyridine	UJ
009_LSB-3B_20200317	SW8270D	111-91-1	Bis(2-Chloroethoxy) Methane	UJ
009_LSB-3B_20200317	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
009_LSB-3B_20200317	SW8270D	122-66-7	1,2-Diphenylhydrazine	UJ
009_LSB-3B_20200317	SW8270D	51-28-5	2,4-Dinitrophenol	UJ
009_LSB-3B_20200317	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
009_LSB-3B_20200317	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
009_LSB-3B_20200317	SW8270D	62-75-9	n-Nitrosodimethylamine	UJ
009_LSB-3B_20200317	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
009_LSB-3B_20200317	SW8270D	86-30-6	n-Nitrosodiphenylamine	UJ
009_LSB-3B_20200317	SW8270D	92-87-5	Benzidine	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
010_EB-1_20200317	E537M	2706-90-3	Perfluoropentanoic Acid	U (2)
010_EB-1_20200317	E537M	375-22-4	Perfluorobutanoic acid	U (2.68)
012_LSB-1A_20200318	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
012_LSB-1A_20200318	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
012_LSB-1A_20200318	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
012_LSB-1A_20200318	SW8260C	107-02-8	Acrolein	UJ
012_LSB-1A_20200318	SW8260C	108-05-4	Vinyl Acetate	UJ
012_LSB-1A_20200318	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
012_LSB-1A_20200318	SW8260C	120-82-1	1,2,4-Trichlorobenzene	UJ
012_LSB-1A_20200318	SW8260C	594-20-7	2,2-Dichloropropane	UJ
012_LSB-1A_20200318	SW8260C	64-17-5	Ethanol	UJ
012_LSB-1A_20200318	SW8260C	67-64-1	Acetone	UJ
012_LSB-1A_20200318	SW8260C	74-87-3	Chloromethane	UJ
012_LSB-1A_20200318	SW8260C	75-01-4	Vinyl Chloride	UJ
012_LSB-1A_20200318	SW8260C	75-15-0	Carbon Disulfide	UJ
012_LSB-1A_20200318	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
012_LSB-1A_20200318	SW8270D	100-01-6	4-Nitroaniline	UJ
012_LSB-1A_20200318	SW8270D	100-02-7	4-Nitrophenol	UJ
012_LSB-1A_20200318	SW8270D	100-52-7	Benzaldehyde	UJ
012_LSB-1A_20200318	SW8270D	110-86-1	Pyridine	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
012_LSB-1A_20200318	SW8270D	117-81-7	Bis(2-Ethylhexyl) Phthalate	J
012_LSB-1A_20200318	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
012_LSB-1A_20200318	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
012_LSB-1A_20200318	SW8270D	51-28-5	2,4-Dinitrophenol	UJ
012_LSB-1A_20200318	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
012_LSB-1A_20200318	SW8270D	58-90-2	2,3,4,6-Tetrachlorophenol	UJ
012_LSB-1A_20200318	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
012_LSB-1A_20200318	SW8270D	65-85-0	Benzoic Acid	UJ
012_LSB-1A_20200318	SW8270D	85-68-7	Benzyl Butyl Phthalate	UJ
012_LSB-1A_20200318	SW8270D	88-74-4	2-Nitroaniline	UJ
012_LSB-1A_20200318	SW8270D	88-75-5	2-Nitrophenol	UJ
012_LSB-1A_20200318	SW8270D	92-87-5	Benzidine	UJ
012_LSB-1A_20200318	SW8270D	99-09-2	3-Nitroaniline	UJ
012_LSB-1A_20200318	SW8270D	193-39-5	Indeno(1,2,3-c,d)Pyrene	J
013_LSB-1B_20200318	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
013_LSB-1B_20200318	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
013_LSB-1B_20200318	E537M	754-91-6	Perfluorooctanesulfonamide	UJ
013_LSB-1B_20200318	SW8260C	107-02-8	Acrolein	UJ
013_LSB-1B_20200318	SW8260C	108-05-4	Vinyl Acetate	UJ
013_LSB-1B_20200318	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
013_LSB-1B_20200318	SW8260C	120-82-1	1,2,4-Trichlorobenzene	UJ
013_LSB-1B_20200318	SW8260C	594-20-7	2,2-Dichloropropane	UJ
013_LSB-1B_20200318	SW8260C	64-17-5	Ethanol	UJ
013_LSB-1B_20200318	SW8260C	67-64-1	Acetone	UJ
013_LSB-1B_20200318	SW8260C	74-87-3	Chloromethane	UJ
013_LSB-1B_20200318	SW8260C	75-01-4	Vinyl Chloride	UJ
013_LSB-1B_20200318	SW8260C	75-15-0	Carbon Disulfide	UJ
013_LSB-1B_20200318	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
013_LSB-1B_20200318	SW8270D	100-01-6	4-Nitroaniline	UJ
013_LSB-1B_20200318	SW8270D	100-02-7	4-Nitrophenol	UJ
013_LSB-1B_20200318	SW8270D	100-52-7	Benzaldehyde	UJ
013_LSB-1B_20200318	SW8270D	110-86-1	Pyridine	UJ
013_LSB-1B_20200318	SW8270D	117-81-7	Bis(2-Ethylhexyl) Phthalate	UJ
013_LSB-1B_20200318	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
013_LSB-1B_20200318	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
013_LSB-1B_20200318	SW8270D	193-39-5	Indeno(1,2,3-c,d)Pyrene	UJ
013_LSB-1B_20200318	SW8270D	51-28-5	2,4-Dinitrophenol	UJ
013_LSB-1B_20200318	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
013_LSB-1B_20200318	SW8270D	58-90-2	2,3,4,6-Tetrachlorophenol	UJ
013_LSB-1B_20200318	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
013_LSB-1B_20200318	SW8270D	65-85-0	Benzoic Acid	UJ
013_LSB-1B_20200318	SW8270D	85-68-7	Benzyl Butyl Phthalate	UJ
013_LSB-1B_20200318	SW8270D	88-74-4	2-Nitroaniline	UJ
013_LSB-1B_20200318	SW8270D	88-75-5	2-Nitrophenol	UJ
013_LSB-1B_20200318	SW8270D	92-87-5	Benzidine	UJ
013_LSB-1B_20200318	SW8270D	99-09-2	3-Nitroaniline	UJ
014_LSB-2A_20200318	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
014_LSB-2A_20200318	E537M	335-67-1	Perfluorooctanoic Acid	U (0.536)
014_LSB-2A_20200318	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
014_LSB-2A_20200318	E537M	754-91-6	Perfluorooctanesulfonamide	UJ
014_LSB-2A_20200318	SW8260C	107-02-8	Acrolein	UJ
014_LSB-2A_20200318	SW8260C	108-05-4	Vinyl Acetate	UJ
014_LSB-2A_20200318	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
014_LSB-2A_20200318	SW8260C	120-82-1	1,2,4-Trichlorobenzene	UJ
014_LSB-2A_20200318	SW8260C	594-20-7	2,2-Dichloropropane	UJ
014_LSB-2A_20200318	SW8260C	64-17-5	Ethanol	UJ
014_LSB-2A_20200318	SW8260C	67-64-1	Acetone	J
014_LSB-2A_20200318	SW8260C	74-87-3	Chloromethane	UJ
014_LSB-2A_20200318	SW8260C	75-01-4	Vinyl Chloride	UJ
014_LSB-2A_20200318	SW8260C	75-15-0	Carbon Disulfide	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
014_LSB-2A_20200318	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
014_LSB-2A_20200318	SW8270D	100-01-6	4-Nitroaniline	UJ
014_LSB-2A_20200318	SW8270D	100-02-7	4-Nitrophenol	UJ
014_LSB-2A_20200318	SW8270D	100-52-7	Benzaldehyde	UJ
014_LSB-2A_20200318	SW8270D	110-86-1	Pyridine	UJ
014_LSB-2A_20200318	SW8270D	117-81-7	Bis(2-Ethylhexyl) Phthalate	J
014_LSB-2A_20200318	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
014_LSB-2A_20200318	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
014_LSB-2A_20200318	SW8270D	51-28-5	2,4-Dinitrophenol	UJ
014_LSB-2A_20200318	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
014_LSB-2A_20200318	SW8270D	58-90-2	2,3,4,6-Tetrachlorophenol	UJ
014_LSB-2A_20200318	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
014_LSB-2A_20200318	SW8270D	65-85-0	Benzoic Acid	UJ
014_LSB-2A_20200318	SW8270D	85-68-7	Benzyl Butyl Phthalate	UJ
014_LSB-2A_20200318	SW8270D	88-74-4	2-Nitroaniline	UJ
014_LSB-2A_20200318	SW8270D	88-75-5	2-Nitrophenol	UJ
014_LSB-2A_20200318	SW8270D	92-87-5	Benzidine	UJ
014_LSB-2A_20200318	SW8270D	99-09-2	3-Nitroaniline	UJ
014_LSB-2A_20200318	SW8270D	193-39-5	Indeno(1,2,3-c,d)Pyrene	J
015_LSB-2B_20200318	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
015_LSB-2B_20200318	E537M	335-67-1	Perfluorooctanoic Acid	U (0.521)
015_LSB-2B_20200318	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
015_LSB-2B_20200318	SW8260C	107-02-8	Acrolein	UJ
015_LSB-2B_20200318	SW8260C	108-05-4	Vinyl Acetate	UJ
015_LSB-2B_20200318	SW8260C	110-75-8	2-Chloroethyl Vinyl Ether	UJ
015_LSB-2B_20200318	SW8260C	120-82-1	1,2,4-Trichlorobenzene	UJ
015_LSB-2B_20200318	SW8260C	594-20-7	2,2-Dichloropropane	UJ
015_LSB-2B_20200318	SW8260C	64-17-5	Ethanol	UJ
015_LSB-2B_20200318	SW8260C	67-64-1	Acetone	UJ
015_LSB-2B_20200318	SW8260C	74-87-3	Chloromethane	UJ
015_LSB-2B_20200318	SW8260C	75-01-4	Vinyl Chloride	UJ
015_LSB-2B_20200318	SW8260C	75-15-0	Carbon Disulfide	UJ
015_LSB-2B_20200318	SW8260C	75-71-8	Dichlorodifluoromethane	UJ
015_LSB-2B_20200318	SW8270D	100-01-6	4-Nitroaniline	UJ
015_LSB-2B_20200318	SW8270D	100-02-7	4-Nitrophenol	UJ
015_LSB-2B_20200318	SW8270D	100-52-7	Benzaldehyde	UJ
015_LSB-2B_20200318	SW8270D	110-86-1	Pyridine	UJ
015_LSB-2B_20200318	SW8270D	117-81-7	Bis(2-Ethylhexyl) Phthalate	UJ
015_LSB-2B_20200318	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
015_LSB-2B_20200318	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
015_LSB-2B_20200318	SW8270D	193-39-5	Indeno(1,2,3-c,d)Pyrene	UJ
015_LSB-2B_20200318	SW8270D	51-28-5	2,4-Dinitrophenol	UJ
015_LSB-2B_20200318	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
015_LSB-2B_20200318	SW8270D	58-90-2	2,3,4,6-Tetrachlorophenol	UJ
015_LSB-2B_20200318	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
015_LSB-2B_20200318	SW8270D	65-85-0	Benzoic Acid	UJ
015_LSB-2B_20200318	SW8270D	85-68-7	Benzyl Butyl Phthalate	UJ
015_LSB-2B_20200318	SW8270D	88-74-4	2-Nitroaniline	UJ
015_LSB-2B_20200318	SW8270D	88-75-5	2-Nitrophenol	UJ
015_LSB-2B_20200318	SW8270D	92-87-5	Benzidine	UJ
015_LSB-2B_20200318	SW8270D	99-09-2	3-Nitroaniline	UJ
016_FB-1_20200318	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	U (2)
016_FB-1_20200318	E537M	2706-90-3	Perfluoropentanoic Acid	U (2)
016_FB-1_20200318	E537M	375-22-4	Perfluorobutanoic acid	U (2.68)
017_EB-2_20200318	E537M	2706-90-3	Perfluoropentanoic Acid	U (2)
017_EB-2_20200318	E537M	375-22-4	Perfluorobutanoic acid	U (2.82)

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. The section below describes the major deficiencies that were identified.

VOCs by SW-846 Method 8260C

20C0787

The continuing calibration verification (CCV) analyzed on 2/17/2020 at 19:56 exhibited a response factor (RF) below the control limit for bromoform (0.0828338). The associated results in sample

001_LSB-6A_20200317, 002_LSB-6B_20200317, 003_DUP-1_20200317, 004_LSB-5A_20200317, 005_LSB-5B_20200317, 006_LSB-4A_20200317, 008_LSB-3A_20200317, and 009_LSB-3B_20200317 are qualified as "R".

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by SW-846 Method 8260C

20C0787

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) for batch BC01322 exhibited a percent recovery below the lower control limit (LCL) for acrolein (4.76%, 4.84%). The associated results in sample 001_LSB-6A_20200317, 002_LSB-6B_20200317, 003_DUP-1_20200317, 004_LSB-5A_20200317, 005_LSB-5B_20200317, 006_LSB-4A_20200317, 008_LSB-3A_20200317, and 009_LSB-3B_20200317 are qualified as "UJ" based on potential low bias.

The LCS/LCSD for batch BC01324 exhibited a percent recovery below the LCL for acrolein (4.25%, 4.53%). The associated results in sample 007_LSB-4B_20200317 are qualified as "UJ" based on potential low bias.

The CCV analyzed on 2/17/2020 at 19:56 exhibited percent differences (%Ds) above the control limit for 1,1,1,2-tetrachloroethane (22.3%), 2-butanone (-26.7%), 2-chloroethylvinyl ether (-21.5%), acetone (-20.7%), acrolein (-59.6%), carbon disulfide (-20.1%), chloromethane (-28.6%), dichlorodifluoromethane (-51.2%), and vinyl chloride (-20.6%). The associated results in sample 007_LSB-4B_20200317 are qualified as "UJ" based on potential indeterminate bias.

The CCV analyzed on 2/17/2020 at 19:56 exhibited %Ds above the control limit for 1,1,1,2-tetrachloroethane (21.1%), 2-chloroethylvinyl ether (-21.3%), acetone (-26.7%), acrolein (-33.1%), dichlorodifluoromethane (-37.7%), and tert-butyl alcohol (-28.3%). The associated results in sample 001_LSB-6A_20200317, 002_LSB-6B_20200317, 003_DUP-1_20200317, 004_LSB-5A_20200317, 005_LSB-5B_20200317, 006_LSB-4A_20200317, 008_LSB-3A_20200317, and 009_LSB-3B_20200317 are qualified as "J" or "UJ" based on potential indeterminate bias.

20C0847

The CCV analyzed on 2/17/2020 at 19:56 exhibited %Ds above the control limit for 1,2,4-trichlorobenzene (-23.3%), 2,2-dichloropropane (-28.9%), 2-chloroethylvinyl ether (-30.9%), acetone (-23.2%), acrolein (-38.1%), carbon disulfide (-25.7%), chloromethane (-30.1%), dichlorodifluoromethane (-54.5%), ethanol (-20.5%), vinyl acetate (20.6%), and vinyl chloride (-23.3%). The associated results in sample 012_LSB-1A_20200318, 013_LSB-1B_20200318, 014_LSB-2A_20200318, and 015_LSB-2B_20200318 are qualified as "J" or "UJ" based on potential indeterminate bias.

SVOCs by SW-846 Method 8270D and 8270D SIM

20C0787

The CCV analyzed on 2/5/2020 at 15:02 exhibited %Ds above the control limit for 4,6-dinitro-2-methylphenol (24.2%), benzaldehyde (-35%), bis(2-chloroisopropyl)ether (49.1%), bis(2-ethylhexyl)phthalate (26.5%), di-n-octyl phthalate (42%), hexachlorocyclopentadiene (-20.3%), and pentachlorophenol (-39%). The associated results in sample 001_LSB-6A_20200317, 002_LSB-6B_20200317, 003_DUP-1_20200317, 004_LSB-5A_20200317, and 005_LSB-5B_20200317 are qualified as "J" or "UJ" based on potential indeterminate bias.

The CCV analyzed on 2/9/2020 at 10:54 exhibited %Ds above the control limit for 1,2-diphenylhydrazine (-24.4%), 2,4-dinitrophenol (91.1%), 2,4-dinitrotoluene (48.7%), 2,6-dinitrotoluene (42.4%), 4,6-dinitro-2-methylphenol (36%), benzaldehyde (-44.1%), benzidine (-36.8%), bis(2-chloroethoxy)methane (-23.1%), hexachlorocyclopentadiene (-50.8%), n-nitrosodimethylamine (-23%), n-nitrosodiphenylamine (-22.5%), and pyridine (-28.2%). The associated results in sample 006_LSB-4A_20200317, 007_LSB-4B_20200317, 008_LSB-3A_20200317, and 009_LSB-3B_20200317 are qualified as "UJ" based on potential indeterminate bias.

20C0847

The LCS/LCSD for batch BC01279 exhibited a percent recovery below the LCL for benzoic acid (19.9%, 19.1%). The associated results in sample 012_LSB-1A_20200318, 013_LSB-1B_20200318, 014_LSB-2A_20200318, and 015_LSB-2B_20200318 are qualified as "UJ" based on potential low bias.

The LCS/LCSD for batch BC01279 exhibited a RPD above the control limit for benzaldehyde (62.6%). The associated results in sample 012_LSB-1A_20200318, 013_LSB-1B_20200318,

014_LSB-2A_20200318, and 015_LSB-2B_20200318 are qualified as "UJ" based on potential indeterminate bias.

The CCV analyzed on 3/12/2020 at 00:54 exhibited %Ds above the control limit for 2,3,4,6-tetrachlorophenol (21.3%), 2,4-dinitrophenol (98.6%), 2,4-dinitrotoluene (45.8%), 2,6-dinitrotoluene (39.3%), 2-nitroaniline (38.7%), 2-nitrophenol (31.5%), 3-nitroaniline (25.1%), 4,6-dinitro-2-methylphenol (72.6%), 4-nitroaniline (26.2%), 4-nitrophenol (26.2%), benzaldehyde (-33.4%), benzidine (-40.3%), benzoic acid (66.6%), benzyl butyl phthalate (36.9%), bis(2-ethylhexyl)phthalate (41.1%), di-n-octyl phthalate (71.3%), indeno(1,2,3-cd)pyrene (22%), and pyridine (-20.9%). The associated results in sample 012_LSB-1A_20200318, 013_LSB-1B_20200318, 014_LSB-2A_20200318, and 015_LSB-2B_20200318 are qualified as "J" or "UJ" based on potential indeterminate bias.

PFAS by USEPA Method 537M

20C0787

The method blank (MB) for batch BC01106-BLK1 exhibited detections of perfluoro-n-butanoic acid (PFBA) (2.65 ug/L), perfluorooctanoic acid (PFOA) (0.545 ug/L), and perfluoropentanoic acid (PFPeA) (0.864 ug/L). The associated results in sample 010_EB-1_20200317 are qualified as "U" at the higher of the sample concentration and the reporting limit based on potential blank contamination.

The CCV analyzed on Y0C2324-CCV1 exhibited %Ds above the control limit for 1h,1h,2h,2h-perfluorodecanesulfonic acid (8:2 FTS) (60.8%) and 1h,1h,2h,2h-perfluorooctanesulfonic acid (6:2 FTS) (78.2%). The associated results in sample 001_LSB-6A_20200317, 002_LSB-6B_20200317, 003_DUP-1_20200317, 004_LSB-5A_20200317, 005_LSB-5B_20200317, 006_LSB-4A_20200317, 008_LSB-3A_20200317, and 009_LSB-3B_20200317 are qualified as "UJ" based on potential indeterminate bias.

The CCV analyzed on Y0C2324-CCV3 exhibited %Ds above the control limit for 8:2 FTS (57.1%), 6:2 FTS (73.3%), and N-MeFOSAA (32.2%). The associated results in sample 001_LSB-6A_20200317, 002_LSB-6B_20200317, 003_DUP-1_20200317, 004_LSB-5A_20200317, 005_LSB-5B_20200317, 006_LSB-4A_20200317, 008_LSB-3A_20200317, and 009_LSB-3B_20200317 are qualified as "UJ" based on potential indeterminate bias.

20C0847

The field blank (FB) (017_EB-2_20200318) exhibited a detection of perfluorooctanesulfonic acid (PFOS) (0.480 ng/l). The associated results in sample 014_LSB-2A_20200318 and 015_LSB-2B_20200318 are qualified as "U" at the reporting limit based on potential blank contamination.

The MB for batch BC01269-BLK1 exhibited detections of N-MeFOSAA (0.542 ng/l), PFPeA (0.876 ng/l), and perfluorobutanoic acid (PFBA) (2.84 ng/l). The associated results in sample 016_FB-1_20200318 and 017_EB-2_20200318 are qualified as "U" at the higher of the sample concentration and the reporting limit based on potential blank contamination.

The sample 013_LSB-1B_20200318 exhibited a percent recovery below the LCL for the surrogate perfluoro-1-[13c8]octanesulfonamide (M8FOSA) (9.77%). The associated results are qualified as "UJ" based on potential low bias.

The sample 014_LSB-2A_20200318 exhibited a percent recovery below the LCL for the surrogate m8fosa (9.77%). The associated results are qualified as "UJ" based on potential low bias.

The CCV analyzed on 3/13/2020 at 17:39 exhibited %Ds above the control limit for 8:2 FTS (61.6%) and 6:2 FTS (76.1%). The associated results in sample 013_LSB-1B_20200318, 014_LSB-2A_20200318, and 015_LSB-2B_20200318 are qualified as "UJ" based on potential indeterminate bias.

The CCV analyzed on 3/13/2020 at 17:39 exhibited %Ds above the control limit for 8:2 FTS (62.5%) and 6:2 FTS (79.1%). The associated results in sample 013_LSB-1B_20200318, 014_LSB-2A_20200318, and 015_LSB-2B_20200318 are qualified as "UJ" based on potential indeterminate bias.

The CCV analyzed on 3/13/2020 at 17:39 exhibited %Ds above the control limit for 8:2 FTS (66.3%), 6:2 FTS (93.8%), and N-MeFOSAA (39.5%). The associated results in sample 012_LSB-1A_20200318 are qualified as "UJ" based on potential indeterminate bias.

The CCV analyzed on 3/13/2020 at 17:39 exhibited %Ds above the control limit for 8:2 FTS (62.2%), 6:2 FTS (88.6%), and N-MeFOSAA (33.9%). The associated results in sample 012_LSB-1A_20200318 are qualified as "UJ" based on potential indeterminate bias.

Pesticides by SW-846 Method 8081B

20C0787

The sample 004_LSB-5A_20200317 exhibited a percent recovery below the LCL for the surrogate tetrachloro-m-xylene (28.3%). The associated results are qualified as "J" or "UJ" based on potential low bias.

Metals by SW-846 Method 6020B

20C0787

The matrix spike (MS) for batch 005_LSB-5B_20200317 exhibited percent recoveries below the LCL for sodium (-0.958%), antimony (27.2%), and beryllium (66%). The associated results in sample are qualified as "J" or "UJ" based on potential low bias.

The serial dilution performed on sample 005_LSB-5B_20200317 exhibited percent recoveries above the upper control limit (UCL) for aluminum (11.8%), barium (25.1%), calcium (11.2%), chromium (18.4%), cobalt (22.2%), copper (13.7%), iron (11.5%), lead (18.4%), magnesium (10.7%), manganese (21.7%), nickel (30.9%), potassium (14.6%), sodium (15.5%), vanadium (16.8%), and zinc (29.1%). The associated results are qualified as "J" based on potential indeterminate bias.

Cyanide by SW-846 Method 9012B

20C0787

The MS for batch 005_LSB-5B_20200317 exhibited a percent recovery below the LCL for cyanide, total (60.1%). The associated results in sample 005_LSB-5B_20200317 are qualified as "UJ" based on potential low bias.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by SW-846 Method 8260C

20C0787

The matrix spike/matrix spike duplicate (MS/MSD) for batch 005_LSB-5B_20200317 exhibited a percent recovery below the LCL for acrolein (4.29%, 3.59%). Organic results are not qualified on the basis of MS/MSDs alone. No qualification is necessary.

The LCSD for batch BC01322 exhibited a percent recovery above the UCL for bromodichloromethane (125%). The associated results are non-detections. No qualification is necessary.

The LCS for batch BC01324 exhibited percent recoveries above the UCL for 1,1,1,2-tetrachloroethane (131%) and bromodichloromethane (127%). The associated results are non-detections. No qualification is necessary.

20C0847

The MB for batch BC01326-BLK2 exhibited a detection of methylene chloride (0.0057 mg/kg). The associated results are non-detections. No qualification is necessary.

The LCS/LCSD for batch BC01326 exhibited a percent recovery above the UCL for bromodichloromethane (127%, 126%). The associated results are non-detections. No qualification is necessary.

The LCSD for batch BC01326 exhibited a percent recovery above the UCL for 1,1,1,2-tetrachloroethane (130%). The associated results are non-detections. No qualification is necessary.

SVOCs by SW-846 Method 8270D and 8270D SIM

20C0787

The MS/MSD for batch 005_LSB-5B_20200317 exhibited a RPD above the control limit for benzoic acid (30.5%). Organic results are not qualified on the basis of MS/MSDs alone. No qualification is necessary.

20C0847

The sample 012_LSB-1A_20200318 exhibited a percent recovery below the LCL for the surrogate phenol-d5 (5%). The other 012_LSB-1A_20200318 surrogates were recovered within the control limits. No qualification is necessary.

The LCS for batch BC01279 exhibited percent recoveries above the UCL for 4,6-dinitro-2-methylphenol (146%) and di-n-octyl phthalate (142%). The associated results are non-detections. No qualification is necessary.

PFAS by USEPA Method 537M

20C0787

The sample 001_LSB-6A_20200317 exhibited a percent recovery above the UCL for the surrogate m2-6:2 FTS (481%). The associated results are non-detections. No qualification is necessary.

The sample 002_LSB-6B_20200317 exhibited percent recoveries above the UCL for the surrogates m2-6:2 FTS (607%) and m2-8:2 FTS (164%). The associated results are non-detections. No qualification is necessary.

The sample 003_DUP-1_20200317 exhibited a percent recovery above the UCL for the surrogate m2-6:2 FTS (534%). The associated results are non-detections. No qualification is necessary.

The sample 004_LSB-5A_20200317 exhibited percent recoveries above the UCL for the surrogates m2-6:2 FTS (609%) and m2-8:2 FTS (657%). The associated results are non-detections. No qualification is necessary.

The sample 005_LSB-5B_20200317 exhibited a percent recovery above the UCL for the surrogate m2-6:2 FTS (588%). The associated results are non-detections. No qualification is necessary.

The sample 006_LSB-4A_20200317 exhibited percent recoveries above the UCL for the surrogates m2-6:2 FTS (589%) and m2-8:2 FTS (152%). The associated results are non-detections. No qualification is necessary.

The sample 007_LSB-4B_20200317 exhibited a percent recovery above the UCL for the surrogate m2-6:2 FTS (600%). The associated results are non-detections. No qualification is necessary.

The sample 008_LSB-3A_20200317 exhibited percent recoveries above the UCL for the surrogates m2-6:2 FTS (572%) and m2-8:2 FTS (520%). The associated results are non-detections. No qualification is necessary.

The sample 009_LSB-3B_20200317 exhibited a percent recovery above the UCL for the surrogate m2-6:2 FTS (614%). The associated results are non-detections. No qualification is necessary.

20C0847

The MB for batch BC01269-BLK1 exhibited a detection of n-ethyl perfluorooctane-sulfonamidoacetic acid (N-EtFOSAA (0.664 ng/l). The associated results are non-detections. No qualification is necessary.

The sample 013_LSB-1B_20200318 exhibited percent recoveries above the UCL for the surrogates m2-6:2 FTS (568%) and m2-8:2 FTS (181%). The associated results are non-detections. No qualification is necessary.

The sample 014_LSB-2A_20200318 exhibited percent recoveries above the UCL for the surrogates m2-6:2 FTS (568%) and m2-8:2 FTS (181%). The associated results are non-detections. No qualification is necessary.

The sample 015_LSB-2B_20200318 exhibited percent recoveries above the UCL for the surrogates m2-6:2 FTS (566%) and m2-8:2 FTS (178%). The associated results are non-detections. No qualification is necessary.

The sample 012_LSB-1A_20200318 exhibited percent recoveries above the UCL for the surrogates d3-N-MeFOSAA (152%), m2-6:2 FTS (754%), and m2-8:2 FTS (940%). The associated results are non-detections. No qualification is necessary.

Metals by SW-846 Method 6020B

20C0787

The MB for batch BC01068-BLK1 exhibited a detection of calcium (6.36 mg/kg). The associated results are >10X the contamination. No qualification is necessary.

The MS/MSD for batch 005_LSB-5B_20200317 exhibited percent recoveries below the LCL for aluminum (-353%), calcium (-1360%), magnesium (-591%), manganese (18.4%), and potassium (-613%). The associated results in the parent sample are >4X the spiked amount. No qualification is necessary.

20C0847

The FB (016_FB-1_20200318) exhibited a detection of potassium (0.0913 mg/l). The associated results are >10X the contamination. No qualification is necessary.

Mercury by SW-846 Method 7473

20C0847

The FB (016_FB-1_20200318) exhibited a detection of mercury (0.00029 mg/l). The associated results are >10X the contamination. No qualification is necessary.

COMMENTS:

One field duplicate and parent sample pair was collected and analyzed for all parameters. For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less than ±2X the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 50% for soil. The following field duplicate and parent sample pairs were compared to the precision criteria:

- 002_LSB-6B_20200317 and 003_DUP-1_20200317

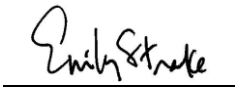
The field duplicate and parent sample (002_LSB-6B_20200317 and 003_DUP-1_20200317) exhibited absolute differences above the RL for aluminum (2980 mg/kg), barium (17.8 mg/kg), calcium (590 mg/kg), chromium, total (5 mg/kg), chromium, trivalent (5 mg/kg), cobalt (0.5 mg/kg), iron (22100 mg/kg), magnesium (1390 mg/kg), manganese (391 mg/kg), nickel (8 mg/kg), potassium (1327 mg/kg), sodium (390 mg/kg), vanadium (7.9 mg/kg), and zinc (5.8 mg/kg). The associated results are qualified as "J" based on potential indeterminate bias.

The field duplicate and parent sample (002_LSB-6B_20200317 and 003_DUP-1_20200317) exhibited a RPD above the control limit for PFOS (146%). The associated results are qualified as "J" or "UJ" based on potential indeterminate bias.

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified, with the exception of the rejected results. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 99.78%.

Signed:



Emily Strake, CEP
Senior Project Chemist

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

2700 Kelly Road, Suite 200 Warrington, PA 18976 T: 215.491.6500 F: 215.491.6501
Mailing Address: P.O. Box 1569 Doylestown, PA 18901

To: Allyson Kritzer, Langan Senior Staff Engineer

From: Emily Strake, Langan Senior Project Chemist

Date: April 1, 2020

Re: Data Usability Summary Report
For 1921 Atlantic Avenue
March 2020 Groundwater Samples
Langan Project No.: 100681201

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of groundwater samples collected in March 2020 by Langan Engineering and Environmental Services ("Langan") at the 1921 Atlantic Avenue site ("the site"). The samples were analyzed by York Analytical Laboratories, Inc. (NYSDOH NELAP registration # 10854) for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), 1,4-dioxane, per- and polyfluoroalkyl substances (PFAS), herbicides, polychlorinated biphenyls (PCBs), pesticides, total and dissolved metals including mercury (Hg), cyanide (CN), hexavalent chromium (CrVI), and trivalent chromium (CrIII) by the methods specified below.

- VOCs by SW-846 Method 8260C
- SVOCs by SW-846 Method 8270D and 8270D SIM
- 1,4-Dioxane by SW-846 Method 8270D SIM
- PFAS by USEPA Method 537M
- Herbicides by SW-846 Method 8151A
- PCBs by SW-846 Method 8082A
- Pesticides by SW-846 Method 8081B
- Metals by SW-846 Method 6010D and 6020B
- Mercury by SW-846 Method 7473
- Cyanide by Standard Method 4500 CN C/E
- Hexavalent Chromium by SW-846 Method 7196A
- Trivalent Chromium (calculated)

Table 1, below, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

TABLE 1: SAMPLE SUMMARY

SDG	*Lab Sample ID*	*Client Sample ID*	*Sample Date*	*Analytical Parameters*
20C0964	20C0964-01	029_LMW-1_20200322	3/22/2020	VOCs, SVOCs, 1,4-Dioxane, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, CN, CrVI, CrIII
20C0964	20C0964-02	030_LMW-2_20200322	3/22/2020	VOCs, SVOCs, 1,4-Dioxane, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, CN, CrVI, CrIII
20C0964	20C0964-03	031_MW-002_20200322	3/22/2020	VOCs, SVOCs, 1,4-Dioxane, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, CN, CrVI, CrIII
20C0964	20C0964-04	032_MW-003_20200322	3/22/2020	VOCs, SVOCs, 1,4-Dioxane, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, CN, CrVI, CrIII
20C0964	20C0964-05	033_MW-004_20200322	3/22/2020	VOCs, SVOCs, 1,4-Dioxane, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, CN, CrVI, CrIII
20C0964	20C0964-06	034_DUP-1_20200322	3/22/2020	VOCs, SVOCs, 1,4-Dioxane, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, CN, CrVI, CrIII
20C0964	20C0964-07	035_FB-2_20200322	3/22/2020	VOCs, SVOCs, 1,4-Dioxane, PFAS, Herbicides, PCBs, Pesticides, Metals, Hg, CN, CrVI, CrIII
20C0964	20C0964-08	036_TB-3_20200322	3/22/2020	VOCs
20C0964	20C0964-09	037_EB-3_20200322	3/22/2020	PFAS

Validation Overview

This data validation was performed in accordance with USEPA Region II Standard Operating Procedure (SOP) #HW-34A, "Trace Volatile Data Validation" (September 2016, Revision 1), USEPA Region II SOP #HW-33A, "Low/Medium Volatile Data Validation" (September 2016, Revision 1), USEPA Region II SOP #HW-35A, "Semivolatile Data Validation" (September 2016, Revision 1), USEPA Region II SOP #HW-17, "Validating Chlorinated Herbicides" (December

2010, Revision 3.1), USEPA Region II SOP #HW-37A, "Polychlorinated Biphenyl (PCB) Aroclor Data Validation" (June 2015, Revision 0), USEPA Region II SOP #HW-36A, "Pesticide Data Validation" (October 2016, Revision 1), USEPA Region II SOP #HW-3a, "ICP-AES Data Validation" (September 2016, Revision 1), USEPA Region II SOP #HW-3c, "Mercury and Cyanide Data Validation" (September 2016, Revision 1), the USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA-540-R-2017-002, January 2017), the USEPA Contract Laboratory Program "National Functional Guidelines for Inorganic Superfund Methods Data Review" (EPA-540-R-2017-001, January 2017) and the specifics of the methods employed.

EPA Method 537 was developed and validated for the analysis of finished drinking water from surface water and groundwater sources. Laboratories have modified Method 537 to enable the analysis of groundwater and soil, and to incorporate PFAS analytes not currently addressed by the promulgated method. NYSDOH offers certification for PFOA and PFOS in the drinking water category. Non-potable water and soil certification is not available; however, the method describes acceptable modifications. EPA recommends that modified methods be assessed relative to project goals and data quality objectives.

Validation includes review of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator. Items subject to review in this memorandum include holding times, sample preservation, instrument tuning, instrument calibration, laboratory blanks, laboratory control samples, system monitoring compounds, internal standard area counts, isotope dilution recoveries, matrix spike/spike duplicate recoveries, target compound identification and quantification, chromatograms, overall system performance, serial dilutions, dual column performance, field duplicate, field blank, trip blank, and equipment blank sample results.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

- **R –** The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- **J –** The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- **UJ –** The analyte was not detected at a level greater than or equal to the reporting limit (RL); however, the reported RL is approximate and may be inaccurate or imprecise.

U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

NJ – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are not sufficiently valid and technically supportable to be used for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified.

TABLE 2: VALIDATOR-APPLIED QUALIFICATION

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
029_LMW-1_20200322	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
029_LMW-1_20200322	E537M	375-22-4	Perfluorobutanoic acid	U (10.5)
029_LMW-1_20200322	E537M	1763-23-1	Perfluorooctanesulfonic acid	U (4.63)
029_LMW-1_20200322	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
029_LMW-1_20200322	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	J
029_LMW-1_20200322	SW8260C	123-91-1	1,4-Dioxane (P-Dioxane)	UJ
029_LMW-1_20200322	SW8260C	67-64-1	Acetone	U (2.22)
029_LMW-1_20200322	SW8260C	107-02-8	Acrolein	R
029_LMW-1_20200322	SW8260C	110-82-7	Cyclohexane	UJ
029_LMW-1_20200322	SW8260C	75-65-0	Tert-Butyl Alcohol	J
029_LMW-1_20200322	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
029_LMW-1_20200322	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
029_LMW-1_20200322	SW8270D	91-94-1	3,3'-Dichlorobenzidine	UJ
029_LMW-1_20200322	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
029_LMW-1_20200322	SW8270D	62-53-3	Aniline (Phenylamine, Aminobenzene)	UJ
029_LMW-1_20200322	SW8270D	100-52-7	Benzaldehyde	UJ
029_LMW-1_20200322	SW8270D	65-85-0	Benzoic Acid	UJ
029_LMW-1_20200322	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
029_LMW-1_20200322	SW8270D	105-60-2	Caprolactam	J
029_LMW-1_20200322	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
029_LMW-1_20200322	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
029_LMW-1_20200322	SW9010	57-12-5	Cyanide	UJ
030_LMW-2_20200322	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
030_LMW-2_20200322	E537M	375-22-4	Perfluorobutanoic acid	U (13.5)
030_LMW-2_20200322	E537M	307-55-1	Perfluorododecanoic Acid	UJ
030_LMW-2_20200322	E537M	1763-23-1	Perfluorooctanesulfonic acid	U (3.54)
030_LMW-2_20200322	E537M	376-06-7	Perfluorotetradecanoic Acid	UJ
030_LMW-2_20200322	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
030_LMW-2_20200322	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
030_LMW-2_20200322	SW8081B	72-54-8	4,4'-DDD	UJ
030_LMW-2_20200322	SW8081B	72-55-9	4,4'-DDE	UJ
030_LMW-2_20200322	SW8081B	50-29-3	4,4'-DDT	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
030_LMW-2_20200322	SW8081B	309-00-2	Aldrin	UJ
030_LMW-2_20200322	SW8081B	319-84-6	Alpha BHC (Alpha Hexachlorocyclohexane)	UJ
030_LMW-2_20200322	SW8081B	5103-71-9	Alpha Chlordane	UJ
030_LMW-2_20200322	SW8081B	959-98-8	Alpha Endosulfan	UJ
030_LMW-2_20200322	SW8081B	319-85-7	Beta Bhc (Beta Hexachlorocyclohexane)	UJ
030_LMW-2_20200322	SW8081B	33213-65-9	Beta Endosulfan	UJ
030_LMW-2_20200322	SW8081B	57-74-9	Chlordane (alpha and gamma)	UJ
030_LMW-2_20200322	SW8081B	319-86-8	Delta Bhc (Delta Hexachlorocyclohexane)	UJ
030_LMW-2_20200322	SW8081B	60-57-1	Dieldrin	UJ
030_LMW-2_20200322	SW8081B	1031-07-8	Endosulfan Sulfate	UJ
030_LMW-2_20200322	SW8081B	72-20-8	Endrin	UJ
030_LMW-2_20200322	SW8081B	7421-93-4	Endrin Aldehyde	UJ
030_LMW-2_20200322	SW8081B	53494-70-5	Endrin Ketone	UJ
030_LMW-2_20200322	SW8081B	58-89-9	Gamma Bhc (Lindane)	UJ
030_LMW-2_20200322	SW8081B	5566-34-7	Gamma-Chlordane	UJ
030_LMW-2_20200322	SW8081B	76-44-8	Heptachlor	UJ
030_LMW-2_20200322	SW8081B	1024-57-3	Heptachlor Epoxide	UJ
030_LMW-2_20200322	SW8081B	72-43-5	Methoxychlor	UJ
030_LMW-2_20200322	SW8081B	8001-35-2	Toxaphene	UJ
030_LMW-2_20200322	SW8260C	123-91-1	1,4-Dioxane (P-Dioxane)	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
030_LMW-2_20200322	SW8260C	67-64-1	Acetone	U (2.00)
030_LMW-2_20200322	SW8260C	107-02-8	Acrolein	R
030_LMW-2_20200322	SW8260C	110-82-7	Cyclohexane	UJ
030_LMW-2_20200322	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
030_LMW-2_20200322	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
030_LMW-2_20200322	SW8270D	91-94-1	3,3'-Dichlorobenzidine	UJ
030_LMW-2_20200322	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
030_LMW-2_20200322	SW8270D	62-53-3	Aniline (Phenylamine, Aminobenzene)	UJ
030_LMW-2_20200322	SW8270D	100-52-7	Benzaldehyde	UJ
030_LMW-2_20200322	SW8270D	65-85-0	Benzoic Acid	UJ
030_LMW-2_20200322	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
030_LMW-2_20200322	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
030_LMW-2_20200322	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
030_LMW-2_20200322	SW9010	57-12-5	Cyanide	UJ
031_MW-002_20200322	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
031_MW-002_20200322	E537M	375-22-4	Perfluorobutanoic acid	U (11.2)
031_MW-002_20200322	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
031_MW-002_20200322	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
031_MW-002_20200322	SW8260C	123-91-1	1,4-Dioxane (P-Dioxane)	UJ
031_MW-002_20200322	SW8260C	107-02-8	Acrolein	R

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
031_MW-002_20200322	SW8260C	110-82-7	Cyclohexane	UJ
031_MW-002_20200322	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
031_MW-002_20200322	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
031_MW-002_20200322	SW8270D	91-94-1	3,3'-Dichlorobenzidine	UJ
031_MW-002_20200322	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
031_MW-002_20200322	SW8270D	62-53-3	Aniline (Phenylamine, Aminobenzene)	UJ
031_MW-002_20200322	SW8270D	100-52-7	Benzaldehyde	UJ
031_MW-002_20200322	SW8270D	65-85-0	Benzoic Acid	UJ
031_MW-002_20200322	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
031_MW-002_20200322	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
031_MW-002_20200322	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
031_MW-002_20200322	SW9010	57-12-5	Cyanide	J
032_MW-003_20200322	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	J
032_MW-003_20200322	E537M	375-22-4	Perfluorobutanoic acid	U (13.3)
032_MW-003_20200322	E537M	1763-23-1	Perfluorooctanesulfonic acid	U (7.99)
032_MW-003_20200322	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
032_MW-003_20200322	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
032_MW-003_20200322	SW8260C	123-91-1	1,4-Dioxane (P-Dioxane)	UJ
032_MW-003_20200322	SW8260C	107-02-8	Acrolein	R
032_MW-003_20200322	SW8260C	110-82-7	Cyclohexane	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
032_MW-003_20200322	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
032_MW-003_20200322	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
032_MW-003_20200322	SW8270D	91-94-1	3,3'-Dichlorobenzidine	UJ
032_MW-003_20200322	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
032_MW-003_20200322	SW8270D	62-53-3	Aniline (Phenylamine, Aminobenzene)	UJ
032_MW-003_20200322	SW8270D	100-52-7	Benzaldehyde	UJ
032_MW-003_20200322	SW8270D	65-85-0	Benzoic Acid	UJ
032_MW-003_20200322	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
032_MW-003_20200322	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
032_MW-003_20200322	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
032_MW-003_20200322	SW8270DSIM	50-32-8	Benzo(a)Pyrene	R
032_MW-003_20200322	SW8270DSIM	205-99-2	Benzo(b)Fluoranthene	R
032_MW-003_20200322	SW8270DSIM	191-24-2	Benzo(g,h,i)Perylene	R
032_MW-003_20200322	SW8270DSIM	207-08-9	Benzo(k)Fluoranthene	R
032_MW-003_20200322	SW8270DSIM	53-70-3	Dibenz(a,h)Anthracene	R
032_MW-003_20200322	SW8270DSIM	193-39-5	Indeno(1,2,3-c,d)Pyrene	R
032_MW-003_20200322	SW9010	57-12-5	Cyanide	UJ
033_MW-004_20200322	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
033_MW-004_20200322	E537M	375-22-4	Perfluorobutanoic acid	U (17.4)
033_MW-004_20200322	E537M	1763-23-1	Perfluorooctanesulfonic acid	U (2.07)

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
033_MW-004_20200322	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
033_MW-004_20200322	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	J
033_MW-004_20200322	SW8260C	123-91-1	1,4-Dioxane (P-Dioxane)	UJ
033_MW-004_20200322	SW8260C	107-02-8	Acrolein	R
033_MW-004_20200322	SW8260C	110-82-7	Cyclohexane	UJ
033_MW-004_20200322	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
033_MW-004_20200322	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
033_MW-004_20200322	SW8270D	91-94-1	3,3'-Dichlorobenzidine	UJ
033_MW-004_20200322	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
033_MW-004_20200322	SW8270D	62-53-3	Aniline (Phenylamine, Aminobenzene)	UJ
033_MW-004_20200322	SW8270D	100-52-7	Benzaldehyde	UJ
033_MW-004_20200322	SW8270D	65-85-0	Benzoic Acid	UJ
033_MW-004_20200322	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
033_MW-004_20200322	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
033_MW-004_20200322	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
033_MW-004_20200322	SW9010	57-12-5	Cyanide	UJ
034_DUP-1_20200322	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
034_DUP-1_20200322	E537M	375-22-4	Perfluorobutanoic acid	U (11.9)
034_DUP-1_20200322	E537M	1763-23-1	Perfluorooctanesulfonic acid	U (4.61)
034_DUP-1_20200322	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
034_DUP-1_20200322	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	J
034_DUP-1_20200322	SW8260C	123-91-1	1,4-Dioxane (P-Dioxane)	UJ
034_DUP-1_20200322	SW8260C	67-64-1	Acetone	U (2.52)
034_DUP-1_20200322	SW8260C	107-02-8	Acrolein	R
034_DUP-1_20200322	SW8260C	110-82-7	Cyclohexane	UJ
034_DUP-1_20200322	SW8260C	75-65-0	Tert-Butyl Alcohol	J
034_DUP-1_20200322	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
034_DUP-1_20200322	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
034_DUP-1_20200322	SW8270D	91-94-1	3,3'-Dichlorobenzidine	UJ
034_DUP-1_20200322	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
034_DUP-1_20200322	SW8270D	62-53-3	Aniline (Phenylamine, Aminobenzene)	UJ
034_DUP-1_20200322	SW8270D	100-52-7	Benzaldehyde	UJ
034_DUP-1_20200322	SW8270D	65-85-0	Benzoic Acid	UJ
034_DUP-1_20200322	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
034_DUP-1_20200322	SW8270D	105-60-2	Caprolactam	J
034_DUP-1_20200322	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
034_DUP-1_20200322	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
034_DUP-1_20200322	SW9010	57-12-5	Cyanide	UJ
035_FB-2_20200322	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
035_FB-2_20200322	E537M	375-22-4	Perfluorobutanoic acid	U (2.60)
035_FB-2_20200322	E537M	2706-90-3	Perfluoropentanoic Acid	U (2.00)

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
035_FB-2_20200322	E537M	376-06-7	Perfluorotetradecanoic Acid	UJ
035_FB-2_20200322	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
035_FB-2_20200322	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ
035_FB-2_20200322	SW8260C	123-91-1	1,4-Dioxane (P-Dioxane)	UJ
035_FB-2_20200322	SW8260C	107-02-8	Acrolein	R
035_FB-2_20200322	SW8260C	110-82-7	Cyclohexane	UJ
035_FB-2_20200322	SW8270D	121-14-2	2,4-Dinitrotoluene	UJ
035_FB-2_20200322	SW8270D	606-20-2	2,6-Dinitrotoluene	UJ
035_FB-2_20200322	SW8270D	91-94-1	3,3'-Dichlorobenzidine	UJ
035_FB-2_20200322	SW8270D	534-52-1	4,6-Dinitro-2-Methylphenol	UJ
035_FB-2_20200322	SW8270D	62-53-3	Aniline (Phenylamine, Aminobenzene)	UJ
035_FB-2_20200322	SW8270D	100-52-7	Benzaldehyde	UJ
035_FB-2_20200322	SW8270D	65-85-0	Benzoic Acid	UJ
035_FB-2_20200322	SW8270D	108-60-1	Bis(2-Chloroisopropyl) Ether	UJ
035_FB-2_20200322	SW8270D	117-84-0	Di-N-Octylphthalate	UJ
035_FB-2_20200322	SW8270D	77-47-4	Hexachlorocyclopentadiene	UJ
035_FB-2_20200322	SW9010	57-12-5	Cyanide	UJ
036_TB-3_20200322	SW8260C	123-91-1	1,4-Dioxane (P-Dioxane)	UJ
036_TB-3_20200322	SW8260C	107-02-8	Acrolein	R
036_TB-3_20200322	SW8260C	110-82-7	Cyclohexane	UJ
037_EB-3_20200322	E537M	2355-31-9	N-methyl perfluorooctane-sulfonamidoacetic acid	UJ
037_EB-3_20200322	E537M	375-22-4	Perfluorobutanoic acid	U (2.47)
037_EB-3_20200322	E537M	2706-90-3	Perfluoropentanoic Acid	U (2.00)
037_EB-3_20200322	E537M	39108-34-4	Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	UJ
037_EB-3_20200322	E537M	27619-97-2	Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	UJ

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. The section below describes the major deficiencies that were identified.

VOCs by SW-846 Method 8260C:

The laboratory control sample and duplicate (LCS/LCSD) for batch BC01400 exhibited a percent recovery below 10% for acrolein (6.21%, 5.98%). The associated results in samples 029_LMW-1_20200322, 030_LMW-2_20200322, 031_MW-002_20200322, 032_MW-003_20200322, 033_MW-004_20200322, 034_DUP-1_20200322, 035_FB-2_20200322, and 036_TB-3_20200322 are rejected.

SVOCs by SW-846 Method 8270D and 8270D SIM:

The sample 032_MW-003_20200322 exhibited a percent recovery below 20% for the internal standard perylene-d12 (0%). The associated non-detect sample results for compounds quantitated by perylene-d12 are rejected based on potential loss of instrument sensitivity.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by SW-846 Method 8260C:

The field blank (035_FB-2_20200322) exhibited a detection of acetone (1.87 ug/L). The associated results in samples 029_LMW-1_20200322, 030_LMW-2_20200322, and 034_DUP-1_20200322 are qualified as "U" at the higher of the sample concentration and the reporting limit based on potential blank contamination.

The field duplicate and parent sample (029_LMW-1_20200322 and 034_DUP-1_20200322) exhibited an absolute difference above the RL for tert-butyl alcohol (1.99 ug/L). The associated results are qualified as "J" based on potential indeterminate bias.

The continuing calibration verification (CCV) analyzed on 3/23/2020 at 11:28 exhibited percent drifts (%Ds) above the control limit for 1,4-dioxane (20.8%) and cyclohexane (180%). The associated results in samples 029_LMW-1_20200322, 030_LMW-2_20200322, 031_MW-002_20200322, 032_MW-003_20200322, 033_MW-004_20200322, 034_DUP-1_20200322, 035_FB-2_20200322, and 036_TB-3_20200322 are qualified as "UJ" based on potential indeterminate bias.

SVOCs by SW-846 Method 8270D and 8270D SIM:

The LCS for batch BC01343 exhibited a percent recovery below the lower control limit (LCL) for benzoic acid (27.5%). The associated results in samples 029_LMW-1_20200322, 030_LMW-

2_20200322, 031_MW-002_20200322, 032_MW-003_20200322, 033_MW-004_20200322, 034_DUP-1_20200322, and 035_FB-2_20200322 are qualified as "UJ" based on potential low bias.

The LCS/LCSD for batch BC01343 exhibited a relative percent difference (RPD) above the control limit for aniline (36.6%). The associated results in samples 029_LMW-1_20200322, 030_LMW-2_20200322, 031_MW-002_20200322, 032_MW-003_20200322, 033_MW-004_20200322, 034_DUP-1_20200322, and 035_FB-2_20200322 are qualified as "UJ" based on potential indeterminate bias.

The field duplicate and parent sample (029_LMW-1_20200322 and 034_DUP-1_20200322) exhibited an absolute difference above the RL for caprolactam (9.29 ug/L). The associated results are qualified as "J" based on potential indeterminate bias.

The CCV analyzed on 3/24/2020 at 09:09 exhibited %Ds above the control limit for 2,4-dinitrotoluene (27.0%), 2,6-dinitrotoluene (25.6%), 3,3-dichlorobenzidine (21.0%), 4,6-dinitro-2-methylphenol (30.6%), benzaldehyde (-38.7%), bis(2-chloroisopropyl)ether (46.1%), di-n-octyl phthalate (43.8%), and hexachlorocyclopentadiene (-26.3%). The associated results in samples 029_LMW-1_20200322, 030_LMW-2_20200322, 031_MW-002_20200322, 032_MW-003_20200322, 033_MW-004_20200322, 034_DUP-1_20200322, and 035_FB-2_20200322 are qualified as "UJ" based on potential indeterminate bias.

PFAS by USEPA Method 537M:

The method blank (MB) for batch BC01345 exhibited a detection of perfluorooctanesulfonic acid (0.991 ng/L). The associated results in samples 029_LMW-1_20200322, 030_LMW-2_20200322, 032_MW-003_20200322, 033_MW-004_20200322, and 034_DUP-1_20200322 are qualified as "U" at the sample concentration based on potential blank contamination.

The MB for batch BC01345 exhibited a detection of perfluoropentanoic acid (0.819 ng/L). The associated results in samples 035_FB-2_20200322 and 037_EB-3_20200322 are qualified as "U" at the reporting limit based on potential blank contamination.

The MB for batch BC01345 exhibited a detection of perfluorobutanoic acid (2.60 ng/L). The associated results in samples 029_LMW-1_20200322, 030_LMW-2_20200322, 031_MW-002_20200322, 032_MW-003_20200322, 033_MW-004_20200322, 034_DUP-1_20200322, 035_FB-2_20200322, and 037_EB-3_20200322 are qualified as "U" at the sample concentration based on potential blank contamination.

The sample 030_LMW-2_20200322 exhibited percent recoveries below the LCL for the standard isotopes perfluoro-n-[1,2-13c2]dodecanoic acid (14.6%) and 13c2-perfluorotetradecanoic acid (5.45%). The associated results are qualified as "UJ" based on potential low bias.

The sample 035_FB-2_20200322 exhibited a percent recovery below the LCL for the standard isotope 13c2-perfluorotetradecanoic acid (6.87%). The associated results are qualified as "UJ" based on potential low bias.

The sample 029_LMW-1_20200322 exhibited a percent recovery above the upper control limit UCL for the standard isotope sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-octane sulfonate (426%). The associated results are qualified as "J" based on potential high bias.

The sample 034_DUP-1_20200322 exhibited a percent recovery above the UCL for the standard isotope sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-octane sulfonate (435%). The associated results are qualified as "J" based on potential high bias.

The CCV analyzed on 3/24/2020 at 16:37 exhibited a %D above the control limit for 1h,1h,2h,2h-perfluorooctanesulfonic acid (94.0%). The associated results in samples 030_LMW-2_20200322, 031_MW-002_20200322, 032_MW-003_20200322, 033_MW-004_20200322, 035_FB-2_20200322, and 037_EB-3_20200322 are qualified as "J" or "UJ" based on potential indeterminate bias.

The CCV analyzed on 3/24/2020 at 16:37 exhibited %Ds above the control limit for 1h,1h,2h,2h-perfluorodecanesulfonic acid (68.5%), 1h,1h,2h,2h-perfluorooctanesulfonic acid (94.0%), and n-mefosaa (31.1%). The associated results in samples 029_LMW-1_20200322, 030_LMW-2_20200322, 031_MW-002_20200322, 032_MW-003_20200322, 033_MW-004_20200322, 034_DUP-1_20200322, 035_FB-2_20200322, and 037_EB-3_20200322 are qualified as "J" or "UJ" based on potential indeterminate bias.

Pesticides by SW-846 Method 8081B:

The sample 030_LMW-2_20200322 exhibited a percent recovery below the LCL for the surrogate decachlorobiphenyl (29.5%). The associated results are qualified as "UJ" based on potential low bias.

Cyanide by Standard Method 4500 CN C/E:

The MS for batch BC01375 exhibited a percent recovery below the LCL for cyanide (47.8%). The associated results in samples 029_LMW-1_20200322, 030_LMW-2_20200322, 031_MW-002_20200322, 032_MW-003_20200322, 033_MW-004_20200322, 034_DUP-1_20200322, and 035_FB-2_20200322 are qualified as "J" or "UJ" based on potential low bias.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by SW-846 Method 8260C:

The initial calibration verification analyzed on 3/21/2020 at 21:54 exhibited a %D above the control limit for acrolein (-95.4%). The associated results were previously qualified. No further action is necessary.

SVOCs by SW-846 Method 8270D and 8270D SIM:

The sample 032_MW-003_20200322 exhibited a percent recovery above the UCL for the surrogate terphenyl-d14 (108%). The other two base/neutral extractable surrogates were recovered within the control limits. No qualification is necessary.

PFAS by USEPA Method 537M:

The field blank (035_FB-2_20200322) exhibited a detection of perfluorooctanoic acid (0.747 ng/L). The associated results are >10X the contamination. No qualification is necessary.

The sample 031_MW-002_20200322 exhibited percent recoveries above the UCL for the standard isotopes sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-octane sulfonate (200%) and sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-decane sulfonate (188%). The associated results are non-detections. No qualification is necessary.

The sample 032_MW-003_20200322 exhibited percent recoveries above the UCL for the standard isotopes sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-octane sulfonate (153%) and sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-decane sulfonate (166%). The associated results are non-detections. No qualification is necessary.

The sample 033_MW-004_20200322 exhibited a percent recovery above the UCL for the standard isotope sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-decane sulfonate (161%). The associated results are non-detections. No qualification is necessary.

The sample 035_FB-2_20200322 exhibited percent recoveries above the UCL for the standard isotopes sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-octane sulfonate (161%) and sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-decane sulfonate (164%). The associated results are non-detections. No qualification is necessary.

The sample 037_EB-3_20200322 exhibited percent recoveries above the UCL for the standard isotopes sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-octane sulfonate (155%) and sodium

1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-decane sulfonate (175%). The associated results are non-detections. No qualification is necessary.

The sample 029_LMW-1_20200322 exhibited a percent recovery above the UCL for the standard isotope sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-decane sulfonate (397%). The associated results are non-detections. No qualification is necessary.

The sample 034_DUP-1_20200322 exhibited a percent recovery above the UCL for the standard isotope sodium 1h,1h,2h,2h-perfluoro-1-[1,2-13c2]-decane sulfonate (462%). The associated results are non-detections. No qualification is necessary.

Metals by SW-846 Method 6010D and 6020B:

The MB for batch BC01362 exhibited a detection of total calcium (0.170 mg/L). The associated results are >10X the contamination. No qualification is necessary.

COMMENTS:

One field duplicate and parent sample pair was collected and analyzed for all parameters. For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less than ±1X the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 30%. The following field duplicate and parent sample pairs were compared to the precision criteria:

- 029_LMW-1_20200322 and 034_DUP-1_20200322: tert-butyl alcohol, caprolactam

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified, with the exception of the rejected results. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 99.3%.

Signed:

Emily Strake, CEP
Senior Project Chemist

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

2700 Kelly Road, Suite 200 Warrington, PA 18976 T: 215.491.6500 F: 215.491.6501
Mailing Address: P.O. Box 1569 Doylestown, PA 18901

To: Allyson Kritzer, Langan Senior Staff Engineer

From: Emily Strake, Langan Senior Project Chemist

Date: March 26, 2020

Re: Data Usability Summary Report
For 1921 Atlantic Avenue
Brooklyn, New York
March 2020 Air Samples
Langan Project No.: 100681201

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of air samples collected in March 2020 by Langan Engineering and Environmental Services ("Langan") at the 1921 Atlantic Avenue site ("the site"). The samples were analyzed by York Analytical Laboratories, Inc. (NYSDOH NELAP registration # 10854 and 12058) for volatile organic compounds (VOCs) by the method specified below.

- VOCs by USEPA Method TO-15

Table 1, below, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

TABLE 1: SAMPLE SUMMARY

SDG	*Lab Sample ID*	*Client Sample ID*	*Sample Date*	*Analytical Parameters*
20C0947	20C0947-01	019_LSV-1	3/20/2020	VOCs
20C0947	20C0947-02	020_DUP-1	3/20/2020	VOCs
20C0947	20C0947-03	021_LSV-2	3/20/2020	VOCs
20C0947	20C0947-04	022_LSV-3	3/20/2020	VOCs
20C0947	20C0947-05	023_LSV-4	3/20/2020	VOCs
20C0947	20C0947-06	024_LSV-5	3/20/2020	VOCs
20C0947	20C0947-07	025_LSV-6	3/20/2020	VOCs
20C0947	20C0947-08	026_LSV-7	3/20/2020	VOCs
20C0947	20C0947-09	027_LSV-8	3/20/2020	VOCs
20C0947	20C0947-10	028_Ambient-1	3/20/2020	VOCs

Validation Overview

This data validation was performed in accordance with USEPA Region II Standard Operating Procedure (SOP) #HW-31, "Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15" (September 2016, Revision 6), the USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA-540-R-2017-002, January 2017), and the specifics of the method employed.

Validation includes review of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator. Items subject to review in this memorandum include holding times, sample preservation, instrument tuning, instrument calibration, laboratory blanks, laboratory control samples, internal standard area counts, target compound identification and quantification, chromatograms, field duplicate sample results, and overall system performance.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

- **R –** The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- **J –** The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- **UJ –** The analyte was not detected at a level greater than or equal to the reporting limit (RL); however, the reported RL is approximate and may be inaccurate or imprecise.
- **U –** The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- **NJ –** The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are not sufficiently valid and technically supportable to be used for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified.

TABLE 2: VALIDATOR-APPLIED QUALIFICATION

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
019_LSV-1	TO15	95-63-6	1,2,4-Trimethylbenzene	J
019_LSV-1	TO15	108-67-8	1,3,5-Trimethylbenzene (Mesitylene)	J
019_LSV-1	TO15	591-78-6	2-Hexanone	UJ
019_LSV-1	TO15	622-96-8	4-Ethyltoluene	J
020_DUP-1	TO15	95-63-6	1,2,4-Trimethylbenzene	J
020_DUP-1	TO15	108-67-8	1,3,5-Trimethylbenzene (Mesitylene)	J
020_DUP-1	TO15	591-78-6	2-Hexanone	J
020_DUP-1	TO15	622-96-8	4-Ethyltoluene	J
020_DUP-1	TO15	67-64-1	Acetone	J
028_AMBIENT-1	TO15	127-18-4	Tetrachloroethylene (PCE)	J
019_LSV-1	TO15	67-64-1	Acetone	J
019_LSV-1	TO15	71-43-2	Benzene	J
019_LSV-1	TO15	100-44-7	Benzyl Chloride	UJ
019_LSV-1	TO15	75-15-0	Carbon Disulfide	J
019_LSV-1	TO15	75-00-3	Chloroethane	J
019_LSV-1	TO15	100-41-4	Ethylbenzene	J
019_LSV-1	TO15	67-63-0	Isopropanol	J
019_LSV-1	TO15	78-93-3	Methyl Ethyl Ketone (2-Butanone)	J
019_LSV-1	TO15	136777-61-2	M-P-Xylene	J
019_LSV-1	TO15	142-82-5	N-Heptane	J
019_LSV-1	TO15	110-54-3	N-Hexane	J
019_LSV-1	TO15	95-47-6	O-Xylene (1,2-Dimethylbenzene)	J
019_LSV-1	TO15	100-42-5	Styrene	J
019_LSV-1	TO15	127-18-4	Tetrachloroethylene (PCE)	J
019_LSV-1	TO15	108-88-3	Toluene	J
020_DUP-1	TO15	71-43-2	Benzene	J
020_DUP-1	TO15	100-44-7	Benzyl Chloride	UJ
020_DUP-1	TO15	75-15-0	Carbon Disulfide	J

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
020_DUP-1	TO15	75-00-3	Chloroethane	J
020_DUP-1	TO15	100-41-4	Ethylbenzene	J
020_DUP-1	TO15	67-63-0	Isopropanol	J
020_DUP-1	TO15	78-93-3	Methyl Ethyl Ketone (2-Butanone)	J
020_DUP-1	TO15	136777-61-2	M-P-Xylene	J
020_DUP-1	TO15	142-82-5	N-Heptane	J
020_DUP-1	TO15	110-54-3	N-Hexane	J
020_DUP-1	TO15	95-47-6	O-Xylene (1,2-Dimethylbenzene)	J
020_DUP-1	TO15	100-42-5	Styrene	J
020_DUP-1	TO15	127-18-4	Tetrachloroethylene (PCE)	J
020_DUP-1	TO15	108-88-3	Toluene	J
021_LSV-2	TO15	100-44-7	Benzyl Chloride	UJ
022_LSV-3	TO15	100-44-7	Benzyl Chloride	UJ
023_LSV-4	TO15	100-44-7	Benzyl Chloride	UJ
024_LSV-5	TO15	100-44-7	Benzyl Chloride	UJ
025_LSV-6	TO15	100-44-7	Benzyl Chloride	UJ
026_LSV-7	TO15	100-44-7	Benzyl Chloride	UJ
027_LSV-8	TO15	100-44-7	Benzyl Chloride	UJ
028_AMBIENT-1	TO15	100-44-7	Benzyl Chloride	UJ

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by USEPA Method TO-15:

20C0947

The laboratory duplicate and parent sample (028_Ambient-1) exhibited a relative percent difference (RPD) above the control limit for tetrachloroethylene (26.7%). The associated results are qualified as "J" based on potential indeterminate bias.

The continuing calibration verification (CCV) analyzed on 3/20/2020 at 02:45 exhibited a percent difference (%D) above the control limit for benzyl chloride (32.1%). The associated results in sample 019_LSV-1, 020_DUP-1, 021_LSV-2, 022_LSV-3, 023_LSV-4, 024_LSV-5, 025_LSV-6, 026_LSV-7, 027_LSV-8, 028_AMBIENT-1 are qualified as "UJ" based on potential indeterminate bias.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The secton below describes the other deficiencies that were identified.

The laboratory noted the final vacuum for samples 022_LSV-3, 023_LSV-4, and 025_LSV-6 were recorded as less than -2 inches Hg upon receipt by the laboratory. The time integrated sampling may be affected and no reflect proper sampling over the time period. This information does not require qualification, however it is noted for completeness.

COMMENTS:

One field duplicate and parent sample pair was collected and analyzed for all parameters. For results less than 5X the reporting limit (RL), analytes meet the precision criteria if the absolute difference is less than ±1X the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 25% for air. The following field duplicate and parent sample pairs were compared to the precision criteria:

- 019_LSV-1 and 020_DUP-1

The field duplicate and parent sample (019_LSV-1 and 020_DUP-1) exhibited absolute differences above the RL for benzene (30 ug/m^3), carbon disulfide (1.21 ug/m^3), chloroethane (0.82 ug/m^3), and n-hexane (3.6 ug/m^3). The field duplicate and parent sample also exhibited RPDs above the control limit for 1,2,4-trimethylbenzene (68%), 1,3,5-trimethylbenzene (58%), 2-hexanone (93%), 4-ethyltoluene (67%), acetone (27%), ethylbenzene (37%), isopropanol (65%), methyl ethyl ketone (29%), m-p-xylene (38%), n-heptane (41%), o-xylene (40%), styrene (39%),

tetrachloroethylene (57%), and toluene (26%). The associated results are qualified as "J" or "UJ" based on potential indeterminate bias.

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified, with the exception of the rejected results. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:

Emily Strake, CEP
Senior Project Chemist

APPENDIX G

Daily Reports

LANGAN

DAILY STATUS REPORT

Prepared By: Molly Gutelius

WEATHER	Snow		Rain		Overcast		Partly Cloudy		Bright Sun	X
TEMP.	< 32		32-50	X	50-70		70-85		>85	

Langan Project No:	100681201	Project:	1921 Atlantic Ave.	Date:	03/16/2020
NYSDEC BCP Site No:	C224279	E-Number:	E-526	Time:	6:30 – 14:00

Consultant:	**PERSONNEL ON SITE:**
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.	**Langan:** Molly Gutelius (Environmental) **AARCO:** Tom Seickel, William Cabrom **Hager Richter:** Jose Cambero, Amanda Fabian

Site Activities

- Langan mobilized to the site with AARCO Environmental Services Corp. (AARCO), the environmental drilling contractor, and Hager-Richter Geoscience Inc. (Hager-Richter), the geophysical survey contractor.
- Hager-Richter conducted a geophysical survey throughout the site.
- AARCO used a Geoprobe Sonic drill rig to advance LMW-1 to 80 feet below ground surface (ft bgs). A 2-inch diameter PVC monitoring well (LMW-1) was installed to 80 ft bgs, with a screen from 65- to 80-ft bgs. No impacts were observed during installation of LMW-1.
- AARCO used a Geoprobe Sonic drill rig to advance LMW-2 to 77 ft bgs. AARCO will continue installation of LMW-2 on 17 March 2020. No impacts were observed during installation of LMW-2.

Samples Collected

- None

Community Air Monitoring Program (CAMP)

- Langan implemented the CAMP during soil disturbance. CAMP equipment consisted of a DustTrack II and photoionization detector (PID) at a dedicated location on the downwind perimeter of the site, as well as a personal DataRam (pDR) and photoionization detector (PID) at a work zone monitoring station.
- No VOC or dust concentrations were detected in exceedance of the daily short-term exposure limit (STEL) at the downwind CAMP station.

Problems Encountered

- None

Activities Scheduled for Next Day

- AARCO will continue installation of LMW-2 and begin installation of soil borings.

LANGAN

SITE MAP

LEGEND

- W — Work Zone Air Monitoring Station
- D — Downwind Perimeter Air Monitoring Station
- Work Area
- Property Boundary

Notes
1 - Features shown on site map are approximate and not to scale.
2 - AREAS OF CONCERN and Figure 6 – SAMPLE LOCATIONS provided in 1921 Atlantic Avenue Remedial Investigation Report dated June 2018 prepared by P.W . Grosser.
3. Parcel information from MapPLUTO 18v2 copyrighted by the New York City Department of Planning.
4. Aerial imagery from Langan's subscription to Nearmap ltd., collected October 26, 2018.
5. The site boundary shown corresponds to tax map metes and bounds as well as the description of the real property described in the 26 November 2018 Brownfield Cleanup Agreement (Site No. C224279).

LANGAN

DAILY STATUS REPORT

Prepared By: Molly Gutelius

WEATHER	Snow		Rain	X	Overcast		Partly Cloudy		Bright Sun	
TEMP.	< 32		32-50	X	50-70		70-85		>85	

Langan Project No:	100681201	Project:	1921 Atlantic Ave.	Date:	03/17/2020
NYSDEC BCP Site No:	C224279	E-Number:	E-526	Time:	6:30 – 13:30

Consultant:	**PERSONNEL ON SITE:**
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.	**Langan:** Molly Gutelius (Environmental) **AARCO:** Tom Seickel, William Cabrom

Site Activities

- AARCO installed a 2-inch diameter PVC monitoring well (LMW-2) to 77-feet below ground surface (ft bgs), with a screen from 62- to 77-ft bgs. No impacts were observed during installation of LMW-2.
- AARCO used a Geoprobe Sonic drill rig to advance soil borings LSB-3, LSB-4, and LSB-6 to 20 ft bgs and LSB-5 to 22 ft bgs. Two samples were collected from each boring, one from the observed historic fill layer and the second from the proposed development depth, for the following parameters: target compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL pesticides, TCL polychlorinated biphenyls (PCBs), herbicides, target analyte list (TAL) metals, cyanide, hexavalent chromium, trivalent chromium, per- and polyfluoroalkyl substances (PFAS), and 1,4-dioxane. No impacts were observed during installation of soil borings LSB-3, LSB-4, LSB-5, and LSB-6.
- AARCO used a submersible pump to develop LMW-1 and LMW-2; approximately ~15 gallons was purged from each permanent monitoring well.

Samples Collected

- Soil sample 001_LSB-6A was collected from 2- to 4-ft bgs, a discrete soil sample for VOCs analysis was collected from 2.5- to 3.0-ft bgs, and a discrete soil sample for PFAS analysis was collected from 3.0- to 3.5-ft bgs.
- Soil sample 002_LSB-6B and 003_DUP-1 were collected from 16- to 18-ft bgs, a discrete soil sample for VOCs analysis was collected from 16- to 16.5-ft bgs, and a discrete soil sample for PFAS analysis was collected from 16.5- to 17-ft bgs.
- Soil sample 004_LSB-5A was collected from 2- to 4-ft bgs, a discrete soil sample for VOCs analysis was collected from 2- to 2.5-ft bgs, and a discrete soil sample for PFAS analysis was collected from 2.5- to 3-ft bgs.
- Soil sample 005_LSB-5B was collected from 20- to 22-ft bgs, a discrete soil sample for VOCs analysis was collected from 20- to 20.5-ft bgs, and a discrete soil sample for PFAS analysis was collected from 20.5- to 21-ft bgs. Additional volume was collected for MS/MSD.
- Soil sample 006_LSB-4A was collected from 1- to 3-ft bgs, a discrete soil sample for VOCs analysis was collected from 1.5- to 2.0-ft bgs, and a discrete soil sample for PFAS analysis was collected from 2.0- to 2.5-ft bgs.
- Soil sample 007_LSB-4B was collected from 16- to 18-ft bgs, a discrete soil sample for VOCs analysis was collected from 16.5- to 17-ft bgs, and a discrete soil sample for PFAS analysis was collected from 17- to 17.5-ft bgs.
- Soil sample 008_LSB-3A was collected from 1- to 3-ft bgs, a discrete soil sample for VOCs analysis was collected from 1.5- to 2.0-ft bgs, and a discrete soil sample for PFAS analysis was collected from 2- to 2.5-ft bgs.

- Soil sample 009_LSB-3B was collected from 16- to 18-ft bgs, a discrete soil sample for VOCs analysis was collected from 17- to 17.5-ft bgs, and a discrete soil sample for PFAS analysis was collected from 17.5- to 18-ft bgs.
- An equipment blank sample, 010_EB-1, was collected from the cutter head of the drill rig tooling.

Community Air Monitoring Program (CAMP)

- Langan implemented the CAMP during soil disturbance. CAMP equipment consisted of a DustTrack II and photoionization detector (PID) at a dedicated location on the downwind perimeter of the site. The work zone monitoring station was not implemented due to heavy precipitation.
- No VOC or dust concentrations were detected in exceedance of the daily short-term exposure limit (STEL) at the downwind CAMP station.

Problems Encountered

- None

Activities Scheduled for Next Day

- AARCO will continue installation of soil borings and soil vapor points.

LANGAN

SITE MAP

LEGEND

- Work Area
- D — Downwind Perimeter Air Monitoring Station
- Property Boundary

Notes
1 - Features shown on site map are approximate and not to scale.
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3. Parcel information from MapPLUTO 18v2 copyrighted by the New York City Department of Planning.
4. Aerial imagery from Langan's subscription to Nearmap ltd., collected October 26, 2018.
5. The site boundary shown corresponds to tax map metes and bounds as well as the description of the real property described in the 26 November 2018 Brownfield Cleanup Agreement (Site No. C224279).

LANGAN

DAILY STATUS REPORT

Prepared By: Molly Gutelius

WEATHER	Snow		Rain		Overcast		Partly Cloudy	X	Bright Sun	
TEMP.	< 32		32-50		50-70	X	70-85		>85	

Langan Project No:	100681201	Project:	1921 Atlantic Ave.	Date:	03/18/2020
NYSDEC BCP Site No:	C224279	E-Number:	E-526	Time:	6:30 – 15:30

Consultant:	**PERSONNEL ON SITE:**
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.	**Langan:** Molly Gutelius (Environmental) **AARCO:** Tom Seickel, William Cabrom

Site Activities.

- AARCO used a Geoprobe drill rig to advance soil borings LSB-1 and LSB-2 to 20 ft bgs. Two samples were collected from each boring, one from the observed historic fill layer and the second from the proposed development depth, for the following parameters: target compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL pesticides, TCL polychlorinated biphenyls (PCBs), herbicides, target analyte list (TAL) metals, cyanide, hexavalent chromium, trivalent chromium, per- and polyfluoroalkyl substances (PFAS), and 1,4-dioxane. No impacts were observed during installation of soil borings LSB-1 and LSB-2.
- AARCO used a submersible pump to develop MW-002; approximately ~15 gallons was purged from the permanent monitoring well.
- AARCO used a Geoprobe drill rig to advance soil vapor points, LSV-1 through LSV-8. LSV-1 and LSV-6 were installed to 3-feet bgs, LSV-3, LSV-4, and LSV-5 were installed to 2-feet bgs, LSV-2 and LSV-8 were installed to 4-feet bgs, and LSV-7 was installed to 1.5-feet bgs.

Samples Collected

- Soil sample 012_LSB-1A was collected from 2- to 4-ft bgs, a discrete soil sample for VOCs analysis was collected from 2.5- to 3.0-ft bgs, and a discrete soil sample for PFAS analysis was collected from 3.0- to 3.5-ft bgs.
- Soil sample 013_LSB-1B was collected from 16- to 18-ft bgs, a discrete soil sample for VOCs analysis was collected from 17- to 17.5-ft bgs, and a discrete soil sample for PFAS analysis was collected from 17.5- to 18-ft bgs.
- Soil sample 014_LSB-2A was collected from 2- to 4-ft bgs, a discrete soil sample for VOCs analysis was collected from 2.5- to 3-ft bgs, and a discrete soil sample for PFAS analysis was collected from 3- to 3.5-ft bgs.
- Soil sample 015_LSB-2B was collected from 16- to 18-ft bgs, a discrete soil sample for VOCs analysis was collected from 17- to 17.5-ft bgs, and a discrete soil sample for PFAS analysis was collected from 17.5- to 18-ft bgs.
- An equipment blank sample, 017_EB-2, was collected from a macrocore liner for PFAS analysis.
- A field blank sample, 016_FB-1, was collected for the following parameters: target compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL pesticides, TCL polychlorinated biphenyls (PCBs), herbicides, target analyte list (TAL) metals, cyanide, hexavalent chromium, trivalent chromium, per- and polyfluoroalkyl substances (PFAS), and 1,4-dioxane.

Community Air Monitoring Program (CAMP)

- Langan implemented the CAMP during soil disturbance. CAMP equipment consisted of a DustTrack II and photoionization detector (PID) at a dedicated location on the downwind perimeter of the site, as well

as a personal DataRam (pDR) and photoionization detector (PID) at a work zone monitoring station.

- No VOC or dust concentrations were detected in exceedance of the daily short-term exposure limit (STEL) at the downwind CAMP station.

Problems Encountered

- None

Activities Scheduled for Next Day

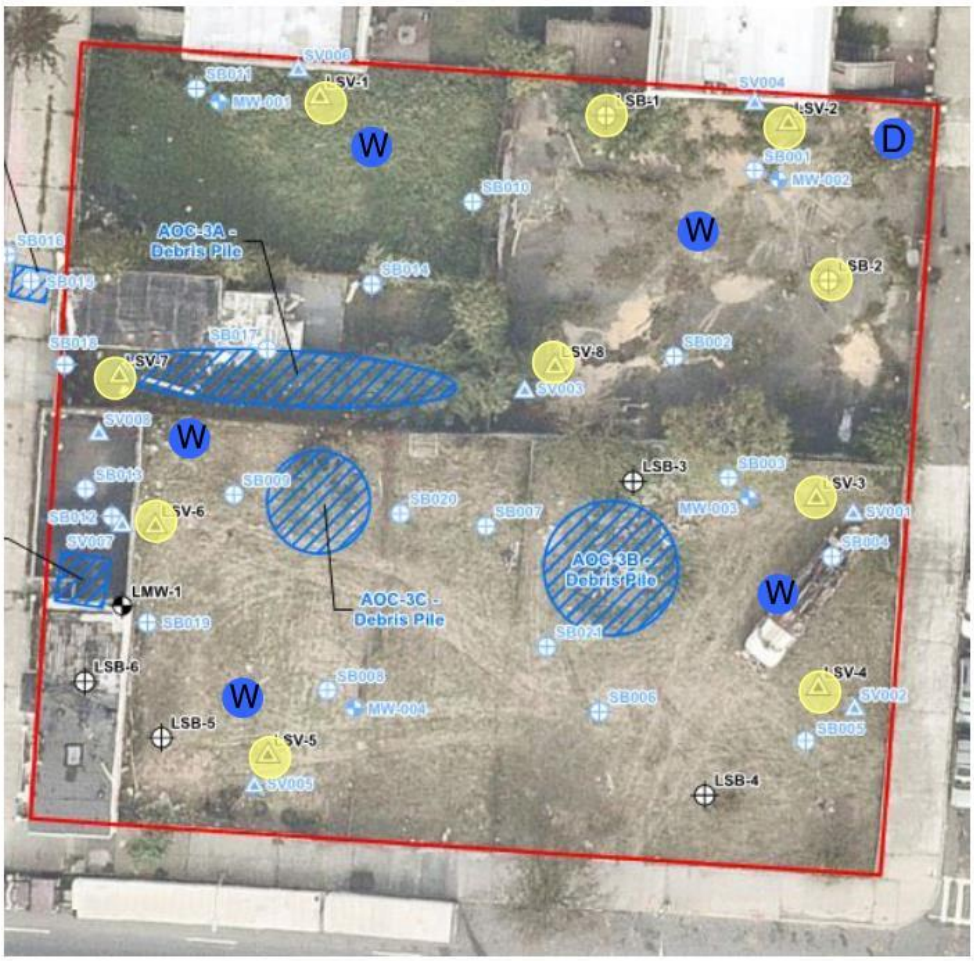
- None, soil vapor sampling to occur on 20 March 2020.

LANGAN

SITE MAP

LEGEND

- W — Work Zone Air Monitoring Station
- D — Downwind Perimeter Air Monitoring Station
- Work Area
- Property Boundary



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LANGAN

DAILY STATUS REPORT

Prepared By: Molly Gutelius

WEATHER	Snow		Rain		Overcast		Partly Cloudy	X	Bright Sun	
TEMP.	< 32		32-50		50-70	X	70-85		>85	

Langan Project No:	100681201	Project:	1921 Atlantic Ave.	Date:	03/20/2020
NYSDEC BCP Site No:	C224279	E-Number:	E-526	Time:	6:30 – 15:30

Consultant:	**PERSONNEL ON SITE:**
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.	**Langan:** Molly Gutelius (Environmental)

Site Activities.

- Langan collected soil vapor samples using 6 L Summa canisters at LSV-1 through LSV-8.

Samples Collected

- Soil vapor sample 019_LSV-1 and 020_DUP-1 were collected from 7:35AM – 9:35AM for TO-15 VOC analysis.
- Soil vapor sample 021_LSV-2 was collected from 9:30AM – 11:17AM for TO-15 VOC analysis.
- Soil vapor sample 022_LSV-3 was collected from 10:40AM – 13:00PM for TO-15 VOC analysis.
- Soil vapor sample 023_LSV-4 was collected from 8:55AM – 10:47AM for TO-15 VOC analysis.
- Soil vapor sample 024_LSV-5 was collected from 8:35AM – 10:30AM for TO-15 VOC analysis.
- Soil vapor sample 025_LSV-6 was collected from 8:10AM – 10:08AM for TO-15 VOC analysis.
- Soil vapor sample 026_LSV-7 was collected from 7:50AM – 9:58AM for TO-15 VOC analysis.
- Soil vapor sample 027_LSV-8 was collected from 9:10AM – 11:00AM for TO-15 VOC analysis.
- Outdoor Ambient air sample 028_Ambient-1 was collected from 7:15AM – 15:15PM for TO-15 VOC analysis.

Community Air Monitoring Program (CAMP)

- No soil disturbance occurred, therefore Langan did not implement CAMP.

Problems Encountered

- None

Activities Scheduled for Next Day

- None, groundwater sampling to occur on 22 March 2020.

LANGAN

SITE MAP

LEGEND

Work Area

Property Boundary

Notes
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5. The site boundary shown corresponds to tax map metes and bounds as well as the description of the real property described in the 26 November 2018 Brownfield Cleanup Agreement (Site No. C224279).

LANGAN

DAILY STATUS REPORT

Prepared By: Molly Gutelius

WEATHER	Snow		Rain		Overcast		Partly Cloudy	X	Bright Sun	
TEMP.	< 32		32-50	X	50-70		70-85		>85	

Langan Project No:	100681201	Project:	1921 Atlantic Ave.	Date:	03/22/2020
NYSDEC BCP Site No:	C224279	E-Number:	E-526	Time:	6:45 – 17:30

Consultant:	**PERSONNEL ON SITE:**
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.	**Langan:** Molly Gutelius (Environmental)

Site Activities.

- Langan collected groundwater samples from LMW-1, LMW-2, MW-002, MW-003, and MW-004 for the following parameters: target compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL pesticides, TCL polychlorinated biphenyls (PCBs), herbicides, total and dissolved target analyte list (TAL) metals, cyanide, hexavalent chromium, trivalent chromium, per- and polyfluoroalkyl substances (PFAS), and 1,4-dioxane.

Samples Collected

- Groundwater samples 029_LMW-1 and 034_DUP-1 were collected for the following parameters: TCL VOCs, TCL, SVOCs, TCL Pesticides, TCL PCBs, herbicides, total and dissolved TAL metals, cyanide, hexavalent chromium, trivalent chromium, 1,4-dioxane, and PFAS.
- Groundwater sample 030_LMW-2 was collected for the following parameters: TCL VOCs, TCL, SVOCs, TCL Pesticides, TCL PCBs, herbicides, total and dissolved TAL metals, cyanide, hexavalent chromium, trivalent chromium, 1,4-dioxane, and PFAS.
- Groundwater sample 031_MW-002 was collected for the following parameters: TCL VOCs, TCL, SVOCs, TCL Pesticides, TCL PCBs, herbicides, total and dissolved TAL metals, cyanide, hexavalent chromium, trivalent chromium, 1,4-dioxane, and PFAS.
- Groundwater sample 032_MW-003 was collected for the following parameters: TCL VOCs, TCL, SVOCs, TCL Pesticides, TCL PCBs, herbicides, total and dissolved TAL metals, cyanide, hexavalent chromium, trivalent chromium, 1,4-dioxane, and PFAS.
- Groundwater sample 033_MW-004 was collected for the following parameters: TCL VOCs, TCL, SVOCs, TCL Pesticides, TCL PCBs, herbicides, total and dissolved TAL metals, cyanide, hexavalent chromium, trivalent chromium, 1,4-dioxane, and PFAS.
- Field blank 035_FB-2 was collected for the following parameters: TCL VOCs, TCL, SVOCs, TCL Pesticides, TCL PCBs, herbicides, total and dissolved TAL metals, cyanide, hexavalent chromium, trivalent chromium, 1,4-dioxane, and PFAS.
- Trip blank 036_TB-3 was collected for TCL VOCs.
- Equipment blank 037_EB-3 was collected for PFAS.

Community Air Monitoring Program (CAMP)

- No soil disturbance occurred, therefore Langan did not implement CAMP.

Problems Encountered

- None

Activities Scheduled for Next Day

- None

LANGAN

SITE MAP

LEGEND

Work Area

Property Boundary

Notes
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4. Aerial imagery from Langan's subscription to Nearmap ltd., collected October 26, 2018.
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APPENDIX H

Historical Data and Boring Logs

TABLE 1
SUMMARY OF HISTORICAL SOIL ANALYTICAL RESULTS
1921 Atlantic Avenue
Brooklyn, New York

Sample ID:		NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objectives					SB001		SB001		SB002		SB002		SB003		SB003		SB003		SB004		SB004		SB005		DUP001 (SB005)		SB005		SB006		SB006	
Laboratory Sample Number:			Protection of Public Health - Restricted Use SCOs				AD01080-008		AD01080-009		AD01080-010		AD01080-011		AD01080-001		AD01080-002		AD01080-003		AD01080-004		AD01080-005		AD01080-006		AD01080-007		AD01080-019		AD01080-014		AD01080-015	
Sample Date:	CAS Number	Unrestricted Use	Residential	Restricted-Residential	Commercial	Industrial	11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017	
Sample Depth (ft bgs):							0-2		6-8		0-2		5-7		0-2		6-8		12-14		0-2		12-14		0-2		0-2		6-8		0-2		5-7	
Units:		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q
Volatile Organics, NJDEP/TCL/Part 375 List																																		
1,1,1-Trichloroethane	71-55-6	0.68	100	100	500	1,000	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,1,2,2-Tetrachloroethane	79-34-5	—	35	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	—	100	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,1,2-Trichloroethane	79-00-5	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,1-Dichloroethane	75-34-3	0.27	19	26	240	480	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,1-Dichloroethylene	75-35-4	0.33	100	100	500	1,000	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,2,3-Trichlorobenzene	87-61-6	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,2,4-Trichlorobenzene	120-82-1	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,2,4-Trimethylbenzene	95-63-6	3.6	47	52	190	380	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
1,2-Dibromo-3-chloropropane	96-12-8	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,2-Dibromoethane	106-93-4	—	—	—	—	—	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
1,2-Dichlorobenzene	95-50-1	1.1	100	100	500	1,000	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,2-Dichloroethane	107-06-2	0.02	2.3	3.1	30	60	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,2-Dichloropropane	78-87-5	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,3,5-Trimethylbenzene	108-67-8	8.4	47	52	190	380	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
1,3-Dichlorobenzene	541-73-1	2.4	17	49	280	560	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,4-Dichlorobenzene	106-46-7	1.8	9.8	13	130	250	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
1,4-Dioxane	123-91-1	0.1	9.8	13	130	250	*0.19*	*U*	*0.11*	*U*	*0.16*	*U*	*0.13*	*U*	*0.16*	*U*	*0.16*	*U*	*0.14*	*U*	*0.13*	*U*	*0.17*	*U*	*0.15*	*U*	*0.16*	*U*	*0.12*	*U*	*0.21*	*U*	*0.18*	*U*
2-Butanone	78-93-3	0.12	100	100	500	1,000	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
2-Hexanone	591-78-6	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
4-Methyl-2-pentanone	108-10-1	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Acetone	67-64-1	0.05	100	100	500	1,000	**0.17**	**D**	0.011	U	0.016	U	0.013	U	0.016	U	0.016	U	0.014	U	0.013	U	0.017	U	0.015	U	0.016	U	0.012	U	0.021	U	0.018	U
Benzene	71-43-2	0.06	2.9	4.8	44	89	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
Bromochloromethane	74-97-5	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Bromodichloromethane	75-27-4	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Bromoform	75-25-2	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Bromomethane	74-83-9	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Carbon disulfide	75-15-0	—	100	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Carbon tetrachloride	56-23-5	0.76	1.4	2.4	22	44	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Chlorobenzene	108-90-7	1.1	100	100	500	1,000	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Chloroethane	75-00-3	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Chloroform	67-66-3	0.37	10	49	350	700	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Chloromethane	74-87-3	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
cis-1,2-Dichloroethylene	156-59-2	0.25	59	100	500	1,000	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
cis-1,3-Dichloropropylene	10061-01-5	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Cyclohexane	110-82-7	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Dibromochloromethane	124-48-1	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Dichlorodifluoromethane	75-71-8	—	—	—	—	—	0.0037	UJ	0.0022	U	0.0032	U	0.0026	U	0.0031	UJ	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Ethyl Benzene	100-41-4	1	30	41	390	780	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
Isopropylbenzene	98-82-8	—	100	—	—	—	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
Methyl acetate	79-20-9	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Methyl tert-butyl ether (MTBE)	1634-04-4	0.93	62	100	500	1,000	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
Methylcyclohexane	108-87-2	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Methylene chloride	75-09-2	0.05	51	100	500	1,000	0.0037	U	0.0027		0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0035	D	0.0027	U	0.0043	D	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
n-Butylbenzene	104-51-8	12	100	100	500	1,000	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
n-Propylbenzene	103-65-1	3.9	100	100	500	1,000	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
o-Xylene	95-47-6	0.26	100	100	500	1,000	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
p- & m- Xylenes	179601-23-1	0.26	100	100	500	1,000	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
sec-Butylbenzene	135-98-8	11	100	100	500	1,000	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
Styrene	100-42-5	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
tert-Butylbenzene	98-06-6	5.9	100	100	500	1,000	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
Tetrachloroethylene	127-18-4	1.3	5.5	19	150	300	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Toluene	108-88-3	0.7	100	100	500	1,000	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U
trans-1,2-Dichloroethylene	156-60-5	0.19	100	100	500	1,000	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
trans-1,3-Dichloropropylene	10061-02-6	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Trichloroethylene	79-01-6	0.47	10	21	200	400	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Trichlorofluoromethane	75-69-4	—	—	—	—	—	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Vinyl Chloride	75-01-4	0.02	0.21	0.9	13	27	0.0037	U	0.0022	U	0.0032	U	0.0026	U	0.0031	U	0.0031	U	0.0029	U	0.0027	U	0.0033	U	0.003	U	0.0031	U	0.0023	U	0.0042	U	0.0037	U
Xylenes, Total	1330-20-7	0.26	100	100	500	1,000	0.0019	U	0.0011	U	0.0016	U	0.0013	U	0.0016	U	0.0016	U	0.0014	U	0.0013	U	0.0017	U	0.0015	U	0.0016	U	0.0012	U	0.0021	U	0.0018	U

TABLE 1
SUMMARY OF HISTORICAL SOIL ANALYTICAL RESULTS
1921 Atlantic Avenue
Brooklyn, New York

Sample ID:		NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objectives					SB001		SB001		SB002		SB002		SB003		SB003		SB003		SB004		SB004		SB005		DUP001 (SB005)		SB005		SB006		SB006	
Laboratory Sample Number:			Protection of Public Health - Restricted Use SCOs				AD01080-008		AD01080-009		AD01080-010		AD01080-011		AD01080-001		AD01080-002		AD01080-003		AD01080-004		AD01080-005		AD01080-006		AD01080-007		AD01080-019		AD01080-014		AD01080-015	
Sample Date:	CAS Number	Unrestricted Use	Residential	Restricted-Residential	Commercial	Industrial	11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017	
Sample Depth (ft bgs):							0-2		6-8		0-2		5-7		0-2		6-8		12-14		0-2		12-14		0-2		0-2		6-8		0-2		5-7	
Units:		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q
Semi-Volatiles, NJDEP/TCL/Part 375 List																																		
1,1'-Biphenyl	92-52-4	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
1,2,4,5-Tetrachlorobenzene	95-94-3	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
2,3,4,6-Tetrachlorophenol	58-90-2	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
2,4,5-Trichlorophenol	95-95-4	—	100	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
2,4,6-Trichlorophenol	88-06-2	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
2,4-Dichlorophenol	120-83-2	—	100	—	—	—	0.049	U	0.027	U	0.044	U	0.0092	U	0.048	U	0.0092	U	0.0093	U	0.2	U	0.0093	U	0.046	U	0.047	U	0.0091	U	0.028	U	0.0091	U
2,4-Dimethylphenol	105-67-9	—	—	—	—	—	0.049	U	0.027	U	0.044	U	0.0092	U	0.048	U	0.0092	U	0.0093	U	0.2	U	0.0093	U	0.046	U	0.047	U	0.0091	U	0.028	U	0.0091	U
2,4-Dinitrophenol	51-28-5	—	100	—	—	—	0.98	UJ	0.55	U	0.89	U	0.18	U	0.96	UJ	0.18	U	0.19	U	3.9	U	0.19	U	0.93	U	0.94	U	0.18	U	0.56	U	0.18	U
2,4-Dinitrotoluene	121-14-2	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
2,6-Dinitrotoluene	606-20-2	—	1.03	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
2-Chloronaphthalene	91-58-7	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
2-Chlorophenol	95-57-8	—	100	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
2-Methylnaphthalene	91-57-6	—	0.41	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	*0.78*	*U*	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
2-Methylphenol	95-48-7	0.33	100	100	500	1,000	0.049	U	0.027	U	0.044	U	0.0092	U	0.048	U	0.0092	U	0.0093	U	0.2	U	0.0093	U	0.046	U	0.047	U	0.0091	U	0.028	U	0.0091	U
2-Nitroaniline	88-74-4	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
2-Nitrophenol	88-75-5	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
3- & 4-Methylphenols	65794-96-9	330	34,000	100,000	500,000	1,000,000	0.049	U	0.027	U	0.044	U	0.0092	U	0.048	U	0.0092	U	0.0093	U	0.2	U	0.0093	U	0.046	U	0.047	U	0.0091	U	0.028	U	0.0091	U
3,3'-Dichlorobenzidine	91-94-1	—	—	—	—	—	0.2	UJ	0.11	U	0.18	U	0.037	U	0.19	UJ	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
3-Nitroaniline	99-09-2	—	—	—	—	—	0.2	UJ	0.11	U	0.18	U	0.037	U	0.19	UJ	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
4-Chloroaniline	106-47-8	—	100	—	—	—	0.049	U	0.027	U	0.044	U	0.0092	U	0.048	U	0.0092	U	0.0093	U	0.2	U	0.0093	U	0.046	U	0.047	U	0.0091	U	0.028	U	0.0091	U
4,6-Dinitro-2-methylphenol	534-52-1	—	—	—	—	—	0.98	UJ	0.55	U	0.89	U	0.18	U	0.96	UJ	0.18	U	0.19	U	3.9	U	0.19	U	0.93	U	0.94	U	0.18	U	0.56	U	0.18	U
4-Bromophenyl phenyl ether	101-55-3	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
4-Chlorophenyl phenyl ether	7005-72-3	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
4-Chloro-3-methylphenol	59-50-7	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
4-Nitroaniline	100-01-6	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
4-Nitrophenol	100-02-7	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Acenaphthene	83-32-9	20	100	100	500	1,000	0.3	D	0.11	U	0.22	D	0.037	U	0.5	D	0.037	U	0.037	U	1.5	D	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Acenaphthylene	208-96-8	100	100	100	500	1,000	0.38	D	0.11	U	0.24	D	0.037	U	0.28	D	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Acetophenone	98-86-2	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Anthracene	120-12-7	100	100	100	500	1,000	0.66	D	0.11	U	0.52	D	0.037	U	1.2	D	0.037	U	0.037	U	4.4	D	0.037	U	0.33	D	0.42	D	0.036	U	0.11	U	0.036	U
Atrazine	1912-24-9	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Benzaldehyde	100-52-7	—	—	—	—	—	0.2	UJ	0.11	U	0.18	U	0.037	U	0.19	UJ	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	**2.6**	**D**	0.17	D	**2.3**	**D**	0.18		**3.7**	**D**	0.037	U	0.037	U	**11**	**D**	0.037	U	**1.4**	**D**	**1.7**	**D**	0.036	U	0.35	D	0.036	U
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	**2.1**	**D**	0.13	D	**2.1**	**D**	0.16		**3.1**	**D**	0.037	U	0.037	U	**8.7**	**D**	0.037	U	**1.3**	**D**	**1.5**	**D**	0.036	U	0.31	D	0.036	U
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	**2.8**	**D**	0.19	D	**2.9**	**D**	0.22		**4.2**	**D**	0.037	U	0.037	U	**12**	**D**	0.037	U	**1.9**	**D**	**2.2**	**D**	0.036	U	0.44	D	0.036	U
Benzo(g,h,i)perylene	191-24-2	100	100	100	500	1,000	1.2	D	0.11	U	1.3	D	0.11		2	D	0.037	U	0.037	U	4.8	D	0.037	U	0.92	D	1	D	0.036	U	0.27	D	0.036	U
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	**0.9**	**D**	0.11	U	**0.94**	**D**	0.072		**1.6**	**D**	0.037	U	0.037	U	**4**	**D**	0.037	U	0.54	D	0.66	D	0.036	U	0.14	D	0.036	U
Benzyl butyl phthalate	85-68-7	—	100	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.24	D	0.39	D	0.036	U	0.2	D	0.036	U
Bis(2-chloroethoxy)methane	111-91-1	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Bis(2-chloroethyl)ether	111-44-4	—	—	—	—	—	0.049	U	0.027	U	0.044	U	0.0092	U	0.048	U	0.0092	U	0.0093	U	0.2	U	0.0093	U	0.046	U	0.047	U	0.0091	U	0.028	U	0.0091	U
Bis(2-chloroisopropyl)ether	108-60-1	—	—	—	—	—	0.2	UJ	0.11	U	0.18	U	0.037	U	0.19	UJ	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Bis(2-ethylhexyl)phthalate	117-81-7	—	50	—	—	—	0.41	D	0.11	U	3.3	D	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	1.3	D	0.036	U
Caprolactam	105-60-2	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Carbazole	86-74-8	—	—	—	—	—	0.29	D	0.11	U	0.32	D	0.037	U	0.55	D	0.037	U	0.037	U	2.6	D	0.037	U	0.21	D	0.26	D	0.036	U	0.11	U	0.036	U
Chrysene	218-01-9	1	1	3.9	56	110	**3**	**D**	0.19	D	**2.2**	**D**	0.18		**3.5**	**D**	0.037	U	0.037	U	**10**	**D**	0.037	U	**1.4**	**D**	**1.7**	**D**	0.036	U	0.35	D	0.036	U
Dibenzo(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	**0.35**	**D**	0.11	U	**0.35**	**D**	0.037	U	**0.57**	**D**	0.037	U	0.037	U	**1.3**	**D**	0.037	U	0.22	D	0.25	D	0.036	U	0.11	U	0.036	U
Dibenzofuran	132-64-9	7	14	59	350	1,000	0.19	D	0.027	U	0.12	D	0.0092	U	0.38	D	0.0092	U	0.0093	U	1.1	D	0.0093	U	0.083	D	0.11	D	0.0091	U	0.028	U	0.0091	U
Diethyl phthalate	84-66-2	—	100	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Dimethyl phthalate	131-11-3	—	100	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Di-n-butyl phthalate	84-74-2	—	100	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.0092	U	0.0093	U	0.78	U	0.0093	U	0.53	D	0.21	D	0.0091	U	0.11	U	0.0091	U
Di-n-octyl phthalate	117-84-0	—	100	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Fluoranthene	206-44-0	100	100	100	500	1,000	5.1	D	0.3	D	5.1	D	0.32		8.5	D	0.037	U	0.037	U	29	D	0.037	U	2.8	D	3.2	D	0.036	U	0.65	D	0.051	
Fluorene	86-73-7	30	100	100	500	1,000	0.66	D	0.11	U	0.24	D	0.037	U	0.57	D	0.037	U	0.037	U	1.7	D	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Hexachlorobenzene	118-74-1	0.33	0.33	1.2	6	12	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	*0.78*	*U*	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Hexachlorobutadiene	87-68-3	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Hexachlorocyclopentadiene	77-47-4	—	—	—	—	—	0.2	UJ	0.11	U	0.18	U	0.037	U	0.19	UJ	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Hexachloroethane	67-72-1	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	0.5	0.5	5.6	11	**1**	**D**	0.11	U	**1.2**	**D**	0.099		**1.8**	**D**	0.037	U	0.037	U	**4.4**	**D**	0.037	U	**0.76**	**D**	**0.88**	**D**	0.036	U	0.18	D	0.036	U
Isophorone	78-59-1	—	100	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Naphthalene	91-20-3	12	100	100	500	1,000	0.24	D	0.027	U	0.076	D	0.0092	U	0.3	D	0.0092	U	0.0093	U	0.75	D	0.0093	U	0.076	D	0.079	D	0.0091	U	0.028	U	0.0091	U
Nitrobenzene	98-95-3	—	3.7	15	69	140	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
N-nitroso-di-n-propylamine	621-64-7	—	—	—	—	—	0.049	UJ	0.027	U	0.044	U	0.0092	U	0.048	UJ	0.0092	U	0.0093	U	0.2	U	0.0093	U	0.046	U	0.047	U	0.0091	U	0.028	U	0.0091	U
N-Nitrosodiphenylamine	86-30-6	—	—	—	—	—	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	0.78	U	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Pentachlorophenol	87-86-5	0.8	2.4	6.7	6.7	55	*0.98*	*UJ*	0.55	U	*0.89*	*U*	0.18	U	*0.96*	*UJ*	0.18	U	0.19	U	*3.9*	*U*	0.19	U	*0.93*	*U*	*0.94*	*U*	0.18	U	0.56	U	0.18	U
Phenanthrene	85-01-8	100	100	100	500	1,000	4.4	D	0.23	D	3.1	D	0.17		6.7	D	0.037	U	0.037	U	25	D	0.037	U	1.8	D	2.1	D	0.036	U	0.43	D	0.036	U
Phenol	108-95-2	0.33	100	100	500	1,000	0.2	U	0.11	U	0.18	U	0.037	U	0.19	U	0.037	U	0.037	U	*0.78*	*U*	0.037	U	0.19	U	0.19	U	0.036	U	0.11	U	0.036	U
Pyrene	129-00-0	100	100	100	500	1,000	6	D	0.34	D	4.1	D	0.29		7	D	0.037	U	0.037	U	24	D	0.037	U	2.6	D	2.9	D	0.036	U	0.61	D	0.055	

TABLE 1
SUMMARY OF HISTORICAL SOIL ANALYTICAL RESULTS
1921 Atlantic Avenue
Brooklyn, New York

Sample ID:		NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objectives					SB001		SB001		SB002		SB002		SB003		SB003		SB003		SB004		SB004		SB005		DUP001 (SB005)		SB005		SB006		SB006	
Laboratory Sample Number:			Protection of Public Health - Restricted Use SCOs				AD01080-008		AD01080-009		AD01080-010		AD01080-011		AD01080-001		AD01080-002		AD01080-003		AD01080-004		AD01080-005		AD01080-006		AD01080-007		AD01080-019		AD01080-014		AD01080-015	
Sample Date:	CAS Number	Unrestricted Use	Residential	Restricted-Residential	Commercial	Industrial	11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017		11/9/2017	
Sample Depth (ft bgs):							0-2		6-8		0-2		5-7		0-2		6-8		12-14		0-2		12-14		0-2		0-2		6-8		0-2		5-7	
Units:		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q
Herbicides, NJDEP/TCL/Part 375 List																																		
2,4,5-T	93-76-5	---	100	---	---	---	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U
2,4,5-TP (Silvex)	93-72-1	3.8	58	100	500	1,000	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U
2,4-D	94-75-7	---	100	---	---	---	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U
Dicamba	1918-00-9	---	---	---	---	---	0.012	UJ	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U
Pesticides, EPA TCL List																																		
4,4'-DDD	72-54-8	0.0033	2.6	13	92	180	**0.1**		**0.0053**		**0.0087**	**J**	0.0027	U	0.0029	U	0.0027	U	0.0028	U	**0.063**		0.0028	U	**0.0058**		0.0028	U	0.0027	U	**0.0076**	**J**	0.0027	U
4,4'-DDE	72-55-9	0.0033	1.8	8.9	62	120	**0.036**		**0.0033**	**J**	**0.026**		**0.0053**		0.0029	U	0.0027	U	0.0028	U	**0.038**		0.0028	U	**0.01**		**0.011**		0.0027	U	**0.037**		0.0027	U
4,4'-DDT	50-29-3	0.0033	1.7	7.9	47	94	0.0029	U	0.0027	U	**0.037**		**0.0088**	**J**	0.0029	U	0.0027	U	0.0028	U	**0.17**		0.0028	U	**0.014**	**J**	**0.04**	**J**	0.0027	U	**0.16**		0.0027	U
Aldrin	309-00-2	0.005	0.019	0.097	0.68	1.4	**0.009**		*0.0055*	*U*	*0.0053*	*U*	*0.0055*	*U*	*0.0057*	*U*	*0.0055*	*U*	*0.0056*	*U*	*0.0059*	*U*	*0.0056*	*U*	*0.0056*	*U*	*0.0056*	*U*	*0.0054*	*U*	*0.0056*	*U*	*0.0054*	*U*
alpha-BHC	319-84-6	0.02	0.097	0.48	3.4	6.8	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U
alpha-Chlordane	5103-71-9	0.094	0.91	4.2	24	47	0.022		0.0055	U	0.01		0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.022		0.0056	U	0.0068	J	0.01		0.0054	U	0.02		0.0054	U
beta-BHC	319-85-7	0.036	0.072	0.36	3	14	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U
Chlordane, total	57-74-9	---	---	---	---	---	0.036		0.0055	U	0.01		0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.044		0.0056	U	0.0068		0.01		0.0054	U	0.033		0.0054	U
delta-BHC	319-86-8	0.04	100	100	500	1,000	0.0059	U	0.0055	U	0.0053	U	0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.0059	U	0.0056	U	0.0056	U	0.0056	U	0.0054	U	0.0056	U	0.0054	U
Dieldrin	60-57-1	0.005	0.039	0.2	1.4	2.8	**0.013**	**J**	**0.023**		0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	**0.0094**	**J**	0.0011	U
Endosulfan I	959-98-8	2.4	4.8	24	200	920	0.0059	U	0.0055	U	0.0053	U	0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.0059	U	0.0056	U	0.0056	U	0.0056	U	0.0054	U	0.0056	U	0.0054	U
Endosulfan II	33213-65-9	2.4	4.8	24	200	920	0.0059	U	0.0055	U	0.0053	U	0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.0059	U	0.0056	U	0.0056	U	0.0056	U	0.0054	U	0.0056	U	0.0054	U
Endosulfan sulfate	1031-07-8	2.4	4.8	24	200	920	0.0059	U	0.0055	U	0.0053	U	0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.0059	U	0.0056	U	0.0056	U	0.0056	U	0.0054	U	0.0056	U	0.0054	U
Endrin	72-20-8	0.014	2.2	11	89	410	0.0059	U	0.0055	U	0.0053	U	0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.0059	U	0.0056	U	0.0056	U	0.0056	U	0.0054	U	0.0056	U	0.0054	U
Endrin aldehyde	7421-93-4	---	---	---	---	---	0.0059	U	0.0055	U	0.0053	U	0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.0059	U	0.0056	U	0.0056	U	0.0056	U	0.0054	U	0.0056	U	0.0054	U
Endrin ketone	53494-70-5	---	---	---	---	---	0.0059	U	0.0055	U	0.0053	U	0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.0059	U	0.0056	U	0.0056	U	0.0056	U	0.0054	U	0.0056	U	0.0054	U
gamma-BHC (Lindane)	58-89-9	0.1	0.28	1.3	9.2	23	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U
gamma-Chlordane	5566-34-7	---	---	---	---	---	0.014	J	0.0055	U	0.0053	U	0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.022		0.0056	U	0.0056	U	0.0056	U	0.0054	U	0.013		0.0054	U
Heptachlor	76-44-8	---	0.42	2.1	15	29	0.0059	U	0.0055	U	0.0053	U	0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.0059	U	0.0056	U	0.0056	U	0.0056	U	0.0054	U	0.0056	U	0.0054	U
Heptachlor epoxide	1024-57-3	---	0.077	---	---	---	0.0059	U	0.0055	U	0.0053	U	0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.0059	U	0.0056	U	0.0056	U	0.0056	U	0.0054	U	0.0056	U	0.0054	U
Methoxychlor	72-43-5	---	100	---	---	---	0.0059	U	0.0055	U	0.0053	U	0.0055	U	0.0057	U	0.0055	U	0.0056	U	0.0059	U	0.0056	U	0.0056	U	0.0056	U	0.0054	U	0.0056	U	0.0054	U
Toxaphene	8001-35-2	---	---	---	---	---	0.029	U	0.027	U	0.027	U	0.027	U	0.029	U	0.027	U	0.028	U	0.029	U	0.028	U	0.028	U	0.028	U	0.027	U	0.028	U	0.027	U
PCBs, EPA TCL List																																		
Aroclor 1016	12674-11-2	0.1	1	1	1	25	0.029	U	0.027	U	0.027	U	0.027	U	0.029	U	0.027	U	0.028	U	0.029	U	0.028	U	0.028	U	0.028	U	0.027	U	0.028	U	0.027	U
Aroclor 1221	11104-28-2	0.1	1	1	1	25	0.029	U	0.027	U	0.027	U	0.027	U	0.029	U	0.027	U	0.028	U	0.029	U	0.028	U	0.028	U	0.028	U	0.027	U	0.028	U	0.027	U
Aroclor 1232	11141-16-5	0.1	1	1	1	25	0.029	U	0.027	U	0.027	U	0.027	U	0.029	U	0.027	U	0.028	U	0.029	U	0.028	U	0.028	U	0.028	U	0.027	U	0.028	U	0.027	U
Aroclor 1242	53469-21-9	0.1	1	1	1	25	0.029	U	0.027	U	0.027	U	0.027	U	0.029	U	0.027	U	0.028	U	0.029	U	0.028	U	0.028	U	0.028	U	0.027	U	0.028	U	0.027	U
Aroclor 1248	12672-29-6	0.1	1	1	1	25	0.029	U	0.027	U	0.027	U	0.027	U	0.029	U	0.027	U	0.028	U	0.029	U	0.028	U	0.028	U	0.028	U	0.027	U	0.028	U	0.027	U
Aroclor 1254	11097-69-1	0.1	1	1	1	25	**0.32**		0.027	U	0.027	U	0.027	U	0.029	U	0.027	U	0.028	U	0.029	U	0.028	U	0.028	U	0.028	U	0.027	U	0.028	U	0.027	U
Aroclor 1260	11096-82-5	0.1	1	1	1	25	0.029	U	0.027	U	0.027	U	0.027	U	0.029	U	0.027	U	0.028	U	0.029	U	0.028	U	**0.18**		**0.2**		0.027	U	0.028	U	0.027	U
Aroclor 1262	37324-23-5	0.1	1	1	1	25	0.029	U	0.027	U	0.027	U	0.027	U	0.029	U	0.027	U	0.028	U	0.066		0.028	U	0.028	U	0.028	U	0.027	U	0.028	U	0.027	U
Aroclor 1268	11100-14-4	0.1	1	1	1	25	0.029	U	0.027	U	**0.1**		0.027	U	0.029	U	0.027	U	0.028	U	0.029	U	0.028	U	0.028	U	0.028	U	0.027	U	0.028	U	0.027	U
Total PCBs	1336-36-3	0.1	1	1	1	25	**0.32**		0.027	U	**0.1**		0.027	U	0.029	U	0.027	U	0.028	U	0.066		0.028	U	**0.18**		**0.2**		0.027	U	0.028	U	0.027	U
Metals, Target Analyte																																		
Aluminum	7429-90-5	---	---	---	---	---	12,000	J	6,900		11,000		8,500		8,800	J	7,300		5,800		10,000		7,200		5,900		8,000		7,600		5,000		7,400	
Antimony	7440-36-0	---	---	---	---	---	6.3	J	0.88	U	0.85	U	0.88	U	0.92	UJ	0.88	U	0.89	U	3.2		0.89	U	1.6		2.2		0.87	U	1.1		0.87	U
Arsenic	7440-38-2	13	16	16	16	16	7.9		2.2		5		2.2		5.9		1.7		1.8		8.6		1.8		9.5		8.5		2.1		6.4		1.9	
Barium	7440-39-3	350	350	400	400	10,000	**710**	**J**	97		**820**		170		**390**	**J**	44		32		**1,400**		50		**940**		**1,100**		48		**490**		63	
Beryllium	7440-41-7	7.2	14	72	590	2,700	0.39	J	0.3		0.21	U	0.25		0.32	J	0.32		0.32		0.31		0.26		0.36		0.3		0.45	D	0.27		0.27	
Cadmium	7440-43-9	2.5	2.5	4.3	9.3	60	**2.9**		0.44	U	**8**		1.4		1.2		0.44	U	0.44	U	**3.1**		0.44	U	**4.6**		**3.8**		0.43	U	**2.7**		0.43	U
Calcium	7440-70-2	---	---	---	---	---	88,000	J	5,500		40,000		3,300		3,500		1,700		1,800		32,000		2,300		19,000		30,000		1,100	U	35,000		2,100	
Chromium	7440-47-3	30	36	180	1500	6,800	**31**		**32**		**30**		22		25		23		18		**36**		**30**		24		27		21		16		20	
Chromium, Hexavalent	18540-29-9	1	22	110	400	800	*1.2*	*UJ*	*1.1*	*U*	*1.1*	*U*	**3.5**		*1.1*	*UJ*	*1.1*	*U*	*1.1*	*U*	*1.2*	*U*	*1.1*	*U*	*1.1*	*U*	*1.1*	*U*	*1.1*	*U*	*1.1*	*U*	*1.1*	*U*
Chromium, Trivalent	16065-83-1	30	36	180	1500	6,800	**31**		**32**		**30**		19		25		23		18		**36**		**30**		24		27		21		16		20	
Cobalt	7440-48-4	---	30	---	---	---	6.6		8.4		8.3		8.1		11		10		9.4		8.2		11		4.8		6.6		8.1		4.4		9.4	
Copper	7440-50-8	50	270	270	270	10,000	**190**	**J**	28		**150**		29		**70**	**J**	24		21		**110**		23		**84**		**110**		18		**51**		24	
Iron	7439-89-6	---	2,000	---	---	---	**35,000**	**J**	**35,000**		**37,000**		**27,000**		**37,000**	**J**	**44,000**		**35,000**		**35,000**		**60,000**		**26,000**		**35,000**		**37,000**		**19,000**		**33,000**	
Lead	7439-92-1	63	400	400	1,000	3,900	**790**	**J**	59		**880**		**210**		**530**	**J**	7.6		8.7		**1,800**		12		**1,900**		**1,400**		7.6		**920**		29	
Magnesium	7439-95-4	---	---	---	---	---	9,100	J	2,900		5,200		3,100		2,400	J	3,100		2,500		10,000		3,000		2,300		3,500		2,300		2,800		2,400	
Manganese	7439-96-5	1,600	2,000	2,000	10,000	10,000	840	J	840		360		270		840	J	520		340		600		530		330		470		850		290		630	
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	**0.66**		0.092	U	**0.3**		0.092	U	**1.6**		0.092	U	0.093	U	**0.47**		0.093	U	**1.5**		**1.1**		0.091	U	**1.1**		0.091	U
Nickel	7440-02-0	30	140	310	310	10,000	23	J	17		27		16		19	J	15		14		26		18		19		29		15		15		15	
Potassium	7440-09-7	---	---	---	---	---	1,400		1,400		5,000		2,400		1,200		1,400		1,100		1,400		1,300		740		900		1,300		560		1,300	
Selenium	7782-49-2	3.9	36	180	1,500	6,800	2.4	UJ	2.2	U	2.9		2.2	U	2.3	UJ	2.2	U	2.2	U	2.4	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Silver	7440-22-4	2	36	180	1,500	6,800	0.53		0.22	U	0.93		0.22	U	0.73		0.22	U	0.22	U	0.42		0.22	U	0.71		0.51		0.22	U	0.27		0.22	U
Sodium	7440-23-5	---	---	---	---	---	290	U	270	U	280		270	U	290	U	270	U	280	U	290	U	280	U	280	U	280	U	270	U	280	U	270	U
Thallium	7440-28-0	---	---	---	---	---	0.47	U	0.44	U	0.43	U	0.44	U	0.46	U	0.44	U	0.44	U	0.47	U	0.44	U	0.44	U	0.45	U	0.43	U	0.45	U	0.43	U
Vanadium	7440-62-2	---	100	---	---	---	33	J	40		32		31		37	J	39		33		38		44		36		48		40		20		36	
Zinc	7440-66-6	109	2,200	10,000	10,000	10,000	**720**	**J**	67		**710**		**110**		**530**	**J**	45		36		**1,300**		40		**930**		**1,200**		38		**470**		51	
General Chemistry																																		
Cyanide, total	57-12-5	27	27	27	27	10,000	0.39	J	0.26	U	0.45		0.26	U	0.31	J	0.26	U	0.27	U	0.59		0.27	U	0.54		0.53		0.26	U	0.27	U	0.26	U

Notes:
Soil Cleanup Objectives are taken from the NYSDEC Subpart 375-6 Remedial Program SCOs (Revised Brownfields) criteria are from the NYSDEC Soil Cleanup Objective Tables 375-6.8(a) and 375-6.8(b), last revised 14 December 2006 and the NYSDEC CP-51 Soil Cleanup Guidance dated 21 October 2010.
ft bgs - feet below ground surface
---: Criteria not established for the analyte
NA: Not analyzed
U: The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
J: The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
D: Compound analyzed at a secondary dilution factor.
B: analyte found in the analysis batch blank
*: Analytical results for these compounds are reported by the laboratory as both VOCs and SVOCs. NYSDEC only provides SCOs for these compounds as VOCs; therefore, the SVOC analytical reuslts for these compounds are screened against the VOC SCOs
Total Chromium is compared to the Trivalent Chromium SCOs for screening purposes.
Italicized results indicate Reporting Limits (RL) greater than or equal to the most stringent criteria.

TABLE 1
SUMMARY OF HISTORICAL SOIL ANALYTICAL RESULTS
1921 Atlantic Avenue
Brooklyn, New York

Sample ID:		NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objectives					SB007		SB007		SB008		SB008		SB009		SB009		SB010		SB010		SB011		SB011		SB012		SB012		SB013		SB013	
Laboratory Sample Number:			Protection of Public Health - Restricted Use SCOs				AD01210-001		AD01210-002		AD01210-003		AD01210-004		AD01210-005		AD01210-006		AD01210-007		AD01210-008		AD01210-009		AD01210-010		AD02620-001□		AD02620-002□		AD02620-003□		AD02620-004□	
Sample Date:	CAS Number	Unrestricted Use	Residential	Restricted-Residential	Commercial	Industrial	11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		2/14/2018		2/14/2018		2/14/2018		2/14/2018	
Sample Depth (ft bgs):							0-2		6-8		0-2		12-14		0-2		12-14		0-2		6-8		0-2		12-14		0-2		2-4		0-2		4-6	
Units:		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q
Volatile Organics, NJDEP/TCL/Part 375 List																																		
1,1,1-Trichloroethane	71-55-6	0.68	100	100	500	1,000	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,1,2,2-Tetrachloroethane	79-34-5	—	35	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	—	100	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,1,2-Trichloroethane	79-00-5	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,1-Dichloroethane	75-34-3	0.27	19	26	240	480	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,1-Dichloroethylene	75-35-4	0.33	100	100	500	1,000	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,2,3-Trichlorobenzene	87-61-6	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,2,4-Trichlorobenzene	120-82-1	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,2,4-Trimethylbenzene	95-63-6	3.6	47	52	190	380	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
1,2-Dibromo-3-chloropropane	96-12-8	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	UJ	0.0019	UJ	0.0025	UJ	0.0020	UJ
1,2-Dibromoethane	106-93-4	—	—	—	—	—	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
1,2-Dichlorobenzene	95-50-1	1.1	100	100	500	1,000	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,2-Dichloroethane	107-06-2	0.02	2.3	3.1	30	60	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,2-Dichloropropane	78-87-5	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,3,5-Trimethylbenzene	108-67-8	8.4	47	52	190	380	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
1,3-Dichlorobenzene	541-73-1	2.4	17	49	280	560	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,4-Dichlorobenzene	106-46-7	1.8	9.8	13	130	250	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
1,4-Dioxane	123-91-1	0.1	9.8	13	130	250	*0.14*	*U*	*0.13*	*U*	*0.29*	*U*	*0.10*	*U*	*0.14*	*U*	*0.11*	*U*	*0.15*	*U*	*0.14*	*U*	*0.15*	*U*	*0.12*	*U*	*0.11*	*UJ*	0.097	UJ	*0.13*	*UJ*	0.098	UJ
2-Butanone	78-93-3	0.12	100	100	500	1,000	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
2-Hexanone	591-78-6	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
4-Methyl-2-pentanone	108-10-1	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.0030	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Acetone	67-64-1	0.05	100	100	500	1,000	0.014	U	0.013	U	0.029	U	0.010	U	0.014	U	0.011	U	0.015	U	0.014	U	0.015	U	0.012	U	0.011	U	0.0097	U	0.013	U	0.0098	U
Benzene	71-43-2	0.06	2.9	4.8	44	89	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
Bromochloromethane	74-97-5	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Bromodichloromethane	75-27-4	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Bromoform	75-25-2	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Bromomethane	74-83-9	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Carbon disulfide	75-15-0	—	100	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Carbon tetrachloride	56-23-5	0.76	1.4	2.4	22	44	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Chlorobenzene	108-90-7	1.1	100	100	500	1,000	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Chloroethane	75-00-3	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Chloroform	67-66-3	0.37	10	49	350	700	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Chloromethane	74-87-3	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
cis-1,2-Dichloroethylene	156-59-2	0.25	59	100	500	1,000	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
cis-1,3-Dichloropropylene	10061-01-5	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Cyclohexane	110-82-7	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Dibromochloromethane	124-48-1	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Dichlorodifluoromethane	75-71-8	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	UJ	0.0019	UJ	0.0025	UJ	0.0020	UJ
Ethyl Benzene	100-41-4	1	30	41	390	780	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
Isopropylbenzene	98-82-8	—	100	—	—	—	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
Methyl acetate	79-20-9	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Methyl tert-butyl ether (MTBE)	1634-04-4	0.93	62	100	500	1,000	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
Methylcyclohexane	108-87-2	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Methylene chloride	75-09-2	0.05	51	100	500	1,000	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0030	D	0.0029	U	0.0028	U	0.0076	D	0.0027		0.0022	U	0.0019	U	0.0025	U	0.0020	U
n-Butylbenzene	104-51-8	12	100	100	500	1,000	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
n-Propylbenzene	103-65-1	3.9	100	100	500	1,000	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
o-Xylene	95-47-6	0.26	100	100	500	1,000	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
p- & m- Xylenes	179601-23-1	0.26	100	100	500	1,000	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
sec-Butylbenzene	135-98-8	11	100	100	500	1,000	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
Styrene	100-42-5	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
tert-Butylbenzene	98-06-6	5.9	100	100	500	1,000	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
Tetrachloroethylene	127-18-4	1.3	5.5	19	150	300	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Toluene	108-88-3	0.7	100	100	500	1,000	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U
trans-1,2-Dichloroethylene	156-60-5	0.19	100	100	500	1,000	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
trans-1,3-Dichloropropylene	10061-02-6	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Trichloroethylene	79-01-6	0.47	10	21	200	400	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Trichlorofluoromethane	75-69-4	—	—	—	—	—	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Vinyl Chloride	75-01-4	0.02	0.21	0.9	13	27	0.0027	U	0.0026	U	0.0057	U	0.0021	U	0.0028	U	0.0021	U	0.0029	U	0.0028	U	0.003	U	0.0023	U	0.0022	U	0.0019	U	0.0025	U	0.0020	U
Xylenes, Total	1330-20-7	0.26	100	100	500	1,000	0.0014	U	0.0013	U	0.0029	U	0.0010	U	0.0014	U	0.0011	U	0.0015	U	0.0014	U	0.0015	U	0.0012	U	0.0011	U	0.00097	U	0.0013	U	0.00098	U

TABLE 1
SUMMARY OF HISTORICAL SOIL ANALYTICAL RESULTS
1921 Atlantic Avenue
Brooklyn, New York

Sample ID:		NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objectives					SB007		SB007		SB008		SB008		SB009		SB009		SB010		SB010		SB011		SB011		SB012		SB012		SB013		SB013	
Laboratory Sample Number:			Protection of Public Health - Restricted Use SCOs				AD01210-001		AD01210-002		AD01210-003		AD01210-004		AD01210-005		AD01210-006		AD01210-007		AD01210-008		AD01210-009		AD01210-010		AD02620-001□		AD02620-002□		AD02620-003□		AD02620-004□	
Sample Date:	CAS Number	Unrestricted Use	Residential	Restricted-Residential	Commercial	Industrial	11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		2/14/2018		2/14/2018		2/14/2018		2/14/2018	
Sample Depth (ft bgs):							0-2		6-8		0-2		12-14		0-2		12-14		0-2		6-8		0-2		12-14		0-2		2-4		0-2		4-6	
Units:		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q
Semi-Volatiles, NJDEP/TCL/Part 375 List																																		
1,1'-Biphenyl	92-52-4	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
1,2,4,5-Tetrachlorobenzene	95-94-3	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
2,3,4,6-Tetrachlorophenol	58-90-2	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
2,4,5-Trichlorophenol	95-95-4	—	100	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
2,4,6-Trichlorophenol	88-06-2	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
2,4-Dichlorophenol	120-83-2	—	100	—	—	—	0.75	U	0.0093	U	0.64	U	0.0093	U	0.098	U	0.0094	U	0.096	U	0.0091	U	0.48	U	0.0094	U	0.0097	UJ	0.0095	UJ	0.0099	UJ	0.0094	UJ
2,4-Dimethylphenol	105-67-9	—	—	—	—	—	0.75	U	0.0093	U	0.64	U	0.0093	U	0.098	U	0.0094	U	0.096	U	0.0091	U	0.48	U	0.0094	U	0.0097	U	0.0095	U	0.0099	U	0.0094	U
2,4-Dinitrophenol	51-28-5	—	100	—	—	—	15	U	0.19	U	13	U	0.19	U	2.0	U	0.19	U	1.9	U	0.18	U	9.6	U	0.19	U	0.19	UJ	0.19	UJ	0.20	UJ	0.19	UJ
2,4-Dinitrotoluene	121-14-2	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
2,6-Dinitrotoluene	606-20-2	—	1.03	—	—	—	*3.0*	*U*	0.037	U	*2.5*	*U*	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	*1.9*	*U*	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
2-Chloronaphthalene	91-58-7	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	UJ	0.038	UJ	0.040	UJ	0.037	UJ
2-Chlorophenol	95-57-8	—	100	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
2-Methylnaphthalene	91-57-6	—	0.41	—	—	—	**9.0**	**D**	0.037	U	*2.5*	*U*	0.037	U	0.39	U	0.037	U	0.38	U	0.068		*1.9*	*U*	0.037	U	0.039	UJ	0.038	UJ	0.094	J	0.037	UJ
2-Methylphenol	95-48-7	0.33	100	100	500	1,000	*0.75*	*U*	0.0093	U	*0.64*	*U*	0.0093	U	0.098	U	0.0094	U	0.096	U	0.0091	U	*0.48*	*U*	0.0094	U	0.0097	U	0.0095	U	0.0099	U	0.0094	U
2-Nitroaniline	88-74-4	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
2-Nitrophenol	88-75-5	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	UJ	0.038	U	0.040	U	0.037	U
3- & 4-Methylphenols	65794-96-9	330	34,000	100,000	500,000	1,000,000	0.75	U	0.0093	U	0.64	U	0.0093	U	0.098	U	0.0094	U	0.096	U	0.011		0.48	U	0.0094	U	0.0097	U	0.0095	U	0.010		0.0094	U
3,3'-Dichlorobenzidine	91-94-1	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
3-Nitroaniline	99-09-2	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	UJ	0.038	U	0.040	U	0.037	U
4-Chloroaniline	106-47-8	—	100	—	—	—	0.75	U	0.0093	U	0.64	U	0.0093	U	0.098	U	0.0094	U	0.096	U	0.0091	U	0.48	U	0.0094	U	0.0097	U	0.0095	U	0.0099	U	0.0094	U
4,6-Dinitro-2-methylphenol	534-52-1	—	—	—	—	—	15	U	0.19	U	13	U	0.19	U	2.0	U	0.19	U	1.9	U	0.18	U	9.6	U	0.19	U	0.19	UJ	0.19	U	0.20	U	0.19	U
4-Bromophenyl phenyl ether	101-55-3	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
4-Chlorophenyl phenyl ether	7005-72-3	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	UJ	0.040	UJ	0.037	UJ
4-Chloro-3-methylphenol	59-50-7	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
4-Nitroaniline	100-01-6	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
4-Nitrophenol	100-02-7	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Acenaphthene	83-32-9	20	100	100	500	1,000	**25**	**D**	0.084		5.0	D	0.037	U	1.0	D	0.037	U	1.2	D	0.21		6.5	D	0.037	U	0.039	U	0.038	U	0.28		0.037	U
Acenaphthylene	208-96-8	100	100	100	500	1,000	8.0	D	0.037	U	4.4	D	0.037	U	0.60	D	0.037	U	0.50	D	0.10		2.8	D	0.037	U	0.039	U	0.038	U	0.052		0.037	U
Acetophenone	98-86-2	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Anthracene	120-12-7	100	100	100	500	1,000	50	D	0.18		15	D	0.037	U	2.5	D	0.037	U	2.6	D	0.42		17	D	0.037	U	0.039	U	0.038	UJ	0.70	J	0.037	UJ
Atrazine	1912-24-9	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Benzaldehyde	100-52-7	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	**100**	**D**	0.32		**52**	**D**	0.037	U	**8.9**	**D**	0.037	U	**7.6**	**D**	**1.2**		**56**	**D**	0.037	U	0.087		0.038	U	**1.9**		0.037	U
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	**84**	**D**	0.27		**49**	**D**	0.037	U	**6.8**	**D**	0.037	U	**6.2**	**D**	0.98		**59**	**D**	0.037	U	0.081	J	0.038	UJ	**1.4**	**J**	0.037	UJ
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	**110**	**D**	0.33		**72**	**D**	0.037	U	**9.4**	**D**	0.037	U	**8.2**	**D**	**1.3**		**75**	**D**	0.037	U	0.1		0.038	U	**1.9**		0.037	U
Benzo(g,h,i)perylene	191-24-2	100	100	100	500	1,000	51	D	0.18		28	D	0.037	U	4.2	D	0.037	U	3.8	D	0.64		39	D	0.037	U	0.06		0.038	U	0.83		0.037	U
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	**37**	**D**	0.13		**22**	**D**	0.037	U	**2.7**	**D**	0.037	U	**2.1**	**D**	0.43		**23**	**D**	0.037	U	0.039	U	0.038	U	0.65		0.037	U
Benzyl butyl phthalate	85-68-7	—	100	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.053		0.037	U
Bis(2-chloroethoxy)methane	111-91-1	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Bis(2-chloroethyl)ether	111-44-4	—	—	—	—	—	0.75	U	0.0093	U	0.64	U	0.0093	U	0.098	U	0.0094	U	0.096	U	0.0091	U	0.48	U	0.0094	U	0.0097	U	0.0095	U	0.0099	U	0.0094	U
Bis(2-chloroisopropyl)ether	108-60-1	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	UJ	0.038	UJ	0.040	UJ	0.037	UJ
Bis(2-ethylhexyl)phthalate	117-81-7	—	50	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.14		0.037	U
Caprolactam	105-60-2	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Carbazole	86-74-8	—	—	—	—	—	19	D	0.067		6.4	D	0.037	U	0.96	D	0.037	U	0.94	D	0.25		5.6	D	0.037	U	0.039	U	0.038	U	0.36		0.037	U
Chrysene	218-01-9	1	1	3.9	56	110	**110**	**D**	0.31		**51**	**D**	0.037	U	**9.1**	**D**	0.037	U	**7.4**	**D**	**1.2**		**55**	**D**	0.037	U	0.092	J	0.038	UJ	**2.0**	**J**	0.037	UJ
Dibenzo(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	**16**	**D**	0.049		**8.4**	**D**	0.037	U	**1.3**	**D**	0.037	U	**1.2**	**D**	0.20		**9.7**	**D**	0.037	U	0.039	U	0.038	U	0.26		0.037	U
Dibenzofuran	132-64-9	7	14	59	350	1,000	**16**	**D**	0.057		3.2	D	0.0093	U	0.46	D	0.0094	U	0.58	D	0.15		4.4	D	0.0094	U	0.0097	UJ	0.0095	UJ	0.17	J	0.0094	UJ
Diethyl phthalate	84-66-2	—	100	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Dimethyl phthalate	131-11-3	—	100	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Di-n-butyl phthalate	84-74-2	—	100	—	—	—	0.75	U	0.0093	U	0.64	U	0.0093	U	0.098	U	0.0094	U	0.096	U	0.0091	U	0.48	U	0.0094	U	0.0097	U	0.0095	U	0.064		0.0094	U
Di-n-octyl phthalate	117-84-0	—	100	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Fluoranthene	206-44-0	100	100	100	500	1,000	**240**	**D**	0.67		**110**	**D**	0.037	U	17	D	0.037	U	13	D	2.2		**120**	**D**	0.037	U	0.19	J	0.038	U	3.7		0.037	U
Fluorene	86-73-7	30	100	100	500	1,000	29	D	0.10		6.1	D	0.037	U	1.1	D	0.037	U	1.2	D	0.22		6.3	D	0.037	U	0.039	U	0.038	U	0.29		0.037	U
Hexachlorobenzene	118-74-1	0.33	0.33	1.2	6	12	*3.0*	*U*	0.037	U	*2.5*	*U*	0.037	U	*0.39*	*U*	0.037	U	*0.38*	*U*	0.036	U	*1.9*	*U*	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Hexachlorobutadiene	87-68-3	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Hexachlorocyclopentadiene	77-47-4	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Hexachloroethane	67-72-1	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	0.5	0.5	5.6	11	**45**	**D**	0.16		**28**	**D**	0.037	U	**3.8**	**D**	0.037	U	**3.6**	**D**	**0.6**		**34**	**D**	0.037	U	0.046		0.038	U	**0.76**		0.037	U
Isophorone	78-59-1	—	100	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Naphthalene	91-20-3	12	100	100	500	1,000	**14**	**D**	0.036		1.8	D	0.0093	U	0.15	D	0.0094	U	0.69	D	0.14		3.7	D	0.0094	U	0.0097	U	0.0095	U	0.14		0.14	
Nitrobenzene	98-95-3	—	3.7	15	69	140	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	UJ	0.038	U	0.040	U	0.037	U
N-nitroso-di-n-propylamine	621-64-7	—	—	—	—	—	0.75	U	0.0093	U	0.64	U	0.0093	U	0.098	U	0.0094	U	0.096	U	0.0091	U	0.48	U	0.0094	U	0.0097	U	0.0095	U	0.0099	U	0.0094	U
N-Nitrosodiphenylamine	86-30-6	—	—	—	—	—	3.0	U	0.037	U	2.5	U	0.037	U	0.39	U	0.037	U	0.38	U	0.036	U	1.9	U	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Pentachlorophenol	87-86-5	0.8	2.4	6.7	6.7	55	*15*	*U*	0.19	U	*13*	*U*	0.19	U	*2*	*U*	0.19	U	*1.9*	*U*	0.18	U	*9.6*	*U*	0.19	U	0.19	U	0.19	U	0.200	U	0.19	U
Phenanthrene	85-01-8	100	100	100	500	1,000	**240**	**D**	0.80		65	D	0.037	U	13	D	0.037	U	12	D	2.1		79	D	0.037	U	0.12	J	0.038	U	3.5		0.037	U
Phenol	108-95-2	0.33	100	100	500	1,000	*3.0*	*U*	0.037	U	*2.5*	*U*	0.037	U	*0.39*	*U*	0.037	U	*0.38*	*U*	0.036	U	*1.9*	*U*	0.037	U	0.039	U	0.038	U	0.040	U	0.037	U
Pyrene	129-00-0	100	100	100	500	1,000	**220**	**D**	0.72		91	D	0.037	U	17	D	0.037	U	15	D	2.4		**110**	**D**	0.037	U	0.17		0.038	U	3.7		0.037	U

TABLE 1
SUMMARY OF HISTORICAL SOIL ANALYTICAL RESULTS
1921 Atlantic Avenue
Brooklyn, New York

Sample ID:		NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objectives					SB007		SB007		SB008		SB008		SB009		SB009		SB010		SB010		SB011		SB011		SB012		SB012		SB013		SB013	
Laboratory Sample Number:			Protection of Public Health - Restricted Use SCOs				AD01210-001		AD01210-002		AD01210-003		AD01210-004		AD01210-005		AD01210-006		AD01210-007		AD01210-008		AD01210-009		AD01210-010		AD02620-001		AD02620-002		AD02620-003		AD02620-004	
Sample Date:							11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		11/16/2017		2/14/2018		2/14/2018		2/14/2018		2/14/2018	
Sample Depth (ft bgs):							0-2		6-8		0-2		12-14		0-2		12-14		0-2		6-8		0-2		12-14		0-2		2-4		0-2		4-6	
Units:	CAS Number	Unrestricted Use mg/kg	Residential mg/kg	Restricted-Residential mg/kg	Commercial mg/kg	Industrial mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q
Herbicides, NJDEP/TCL/Part 375 List																																		
2,4,5-T	93-76-5	---	100	---	---	---	0.012	U	0.011	U	0.017	U	0.011	U	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.012	U	0.011	U	0.012	U	0.011	U
2,4,5-TP (Silvex)	93-72-1	3.8	58	100	500	1,000	0.012	U	0.011	U	0.017	U	0.011	U	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.012	U	0.011	U	0.012	U	0.011	U
2,4-D	94-75-7	---	100	---	---	---	0.012	U	0.011	U	0.017	U	0.011	U	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.012	U	0.011	U	0.012	U	0.011	U
Dicamba	1918-00-9	---	---	---	---	---	0.012	U	0.011	U	0.017	U	0.011	U	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.012	UJ	0.011	UJ	0.012	UJ	0.011	UJ
Pesticides, EPA TCL List																																		
4,4'-DDD	72-54-8	0.0033	2.6	13	92	180	**0.034**	**J**	0.0028	U	**0.015**	**J**	0.0028	U	**0.038**	**J**	0.0028	U	0.0029	U	0.0027	U	0.0029	U	0.0028	U	0.0029	U	0.0028	U	0.003	U	0.0028	U
4,4'-DDE	72-55-9	0.0033	1.8	8.9	62	120	**0.057**		0.0028	U	**0.058**		0.0028	U	**0.028**	**J**	0.0028	U	**0.0063**		0.0027	U	0.0029	U	0.0028	U	0.0029	U	0.0028	U	0.003	U	0.0028	U
4,4'-DDT	50-29-3	0.0033	1.7	7.9	47	94	**0.055**	**J**	0.0028	U	**0.034**	**J**	0.0028	U	**0.031**	**J**	0.0028	U	**0.015**	**J**	0.0027	U	0.0029	U	0.0028	U	**0.0033**	**J**	0.0028	U	**0.0064**	**J**	0.0028	U
Aldrin	309-00-2	0.005	0.019	0.097	0.68	1.4	*0.0060*	*U*	*0.0056*	*U*	*0.0085*	*U*	*0.0056*	*U*	*0.0059*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0054*	*U*	*0.0057*	*U*	*0.0056*	*U*	*0.0058*	*U*	*0.0057*	*U*	*0.006*	*U*	*0.0056*	*U*
alpha-BHC	319-84-6	0.02	0.097	0.48	3.4	6.8	0.0012	U	0.0011	U	0.0017	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0012	U	0.0011	U	0.0012	U	0.0011	U
alpha-Chlordane	5103-71-9	0.094	0.91	4.2	24	47	0.044	J	0.0056	U	0.087	J	0.0056	U	0.021		0.0056	U	0.020		0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	U	0.0056	U
beta-BHC	319-85-7	0.036	0.072	0.36	3	14	0.0012	U	0.0011	U	0.0017	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0012	U	0.0011	U	0.0012	U	0.0011	U
Chlordane, total	57-74-9	---	---	---	---	---	0.064		0.0056	U	0.15		0.0056	U	0.034		0.0056	U	0.034		0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	U	0.0056	U
delta-BHC	319-86-8	0.04	100	100	500	1,000	0.0060	U	0.0056	U	0.0085	U	0.0056	U	0.0059	U	0.0056	U	0.0057	U	0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	U	0.0056	U
Dieldrin	60-57-1	0.005	0.039	0.2	1.4	2.8	0.0012	U	0.0011	U	**0.068**	**J**	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0012	U	0.0011	U	0.0012	U	0.0011	U
Endosulfan I	959-98-8	2.4	4.8	24	200	920	0.0060	U	0.0056	U	0.0085	U	0.0056	U	0.0059	U	0.0056	U	0.0057	U	0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	U	0.0056	U
Endosulfan II	33213-65-9	2.4	4.8	24	200	920	0.0060	U	0.0056	U	0.0085	U	0.0056	U	0.0059	U	0.0056	U	0.0057	U	0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	U	0.0056	U
Endosulfan sulfate	1031-07-8	2.4	4.8	24	200	920	0.0060	U	0.0056	U	0.0085	U	0.0056	U	0.0059	U	0.0056	U	0.0057	U	0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	U	0.0056	U
Endrin	72-20-8	0.014	2.2	11	89	410	0.0060	U	0.0056	U	0.0085	U	0.0056	U	0.0059	U	0.0056	U	0.0057	U	0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	UJ	0.0056	U
Endrin aldehyde	7421-93-4	---	---	---	---	---	0.0060	U	0.0056	U	0.0085	U	0.0056	U	0.0059	U	0.0056	U	0.0057	U	0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	U	0.0056	U
Endrin ketone	53494-70-5	---	---	---	---	---	0.0060	U	0.0056	U	0.0085	U	0.0056	U	0.0059	U	0.0056	U	0.0057	U	0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	UJ	0.0056	U
gamma-BHC (Lindane)	58-89-9	0.1	0.28	1.3	9.2	23	0.0012	U	0.0011	U	0.0017	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0012	U	0.0011	U	0.0012	U	0.0011	U
gamma-Chlordane	5566-34-7	---	---	---	---	---	0.020	J	0.0056	U	0.064		0.0056	U	0.013	J	0.0056	U	0.014	J	0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	U	0.0056	U
Heptachlor	76-44-8	---	0.42	2.1	15	29	0.0060	U	0.0056	U	0.0085	U	0.0056	U	0.0059	U	0.0056	U	0.0057	U	0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	UJ	0.0056	U
Heptachlor epoxide	1024-57-3	---	0.077	---	---	---	0.0060	U	0.0056	U	0.0085	U	0.0056	U	0.0059	U	0.0056	U	0.0057	U	0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	U	0.0056	U
Methoxychlor	72-43-5	---	100	---	---	---	0.0060	U	0.0056	U	0.0085	U	0.0056	U	0.0059	U	0.0056	U	0.0057	U	0.0054	U	0.0057	U	0.0056	U	0.0058	U	0.0057	U	0.006	UJ	0.0056	U
Toxaphene	8001-35-2	---	---	---	---	---	0.030	U	0.028	U	0.042	U	0.028	U	0.029	U	0.028	U	0.029	U	0.027	U	0.029	U	0.028	U	0.029	U	0.028	U	0.03	U	0.028	U
PCBs, EPA TCL List																																		
Aroclor 1016	12674-11-2	0.1	1	1	1	25	0.030	U	0.028	U	0.042	U	0.028	U	0.029	U	0.028	U	0.029	U	0.027	U	0.029	U	0.028	U	0.029	U	0.028	U	0.030	U	0.028	U
Aroclor 1221	11104-28-2	0.1	1	1	1	25	0.030	U	0.028	U	0.042	U	0.028	U	0.029	U	0.028	U	0.029	U	0.027	U	0.029	U	0.028	U	0.029	U	0.028	U	0.030	U	0.028	U
Aroclor 1232	11141-16-5	0.1	1	1	1	25	0.030	U	0.028	U	0.042	U	0.028	U	0.029	U	0.028	U	0.029	U	0.027	U	0.029	U	0.028	U	0.029	U	0.028	U	0.030	U	0.028	U
Aroclor 1242	53469-21-9	0.1	1	1	1	25	0.030	U	0.028	U	0.042	U	0.028	U	0.029	U	0.028	U	0.029	U	0.027	U	0.029	U	0.028	U	0.029	U	0.028	U	0.030	U	0.028	U
Aroclor 1248	12672-29-6	0.1	1	1	1	25	0.030	U	0.028	U	0.042	U	0.028	U	0.029	U	0.028	U	0.029	U	0.027	U	0.029	U	0.028	U	0.029	U	0.028	U	0.030	U	0.028	U
Aroclor 1254	11097-69-1	0.1	1	1	1	25	**1.9**		0.028	U	0.042	U	0.028	U	0.093		0.028	U	0.029	U	0.027	U	0.029	U	0.028	U	0.029	U	0.028	U	0.030	U	0.028	U
Aroclor 1260	11096-82-5	0.1	1	1	1	25	0.030	U	0.028	U	0.042	U	0.028	U	0.029	U	0.028	U	0.029	U	0.027	U	0.029	U	0.028	U	0.029	U	0.028	U	0.030	U	0.028	U
Aroclor 1262	37324-23-5	0.1	1	1	1	25	0.030	U	0.028	U	0.042	U	0.028	U	0.062		0.028	U	0.029	U	0.027	U	0.029	U	0.028	U	0.029	U	0.028	U	0.030	U	0.028	U
Aroclor 1268	11100-14-4	0.1	1	1	1	25	0.030	U	0.028	U	0.042	U	0.028	U	0.029	U	0.028	U	0.029	U	0.027	U	0.029	U	0.028	U	0.029	U	0.028	U	0.030	U	0.028	U
Total PCBs	1336-36-3	0.1	1	1	1	25	**1.9**		0.028	U	0.042	U	0.028	U	**0.16**		0.028	U	0.029	U	0.027	U	0.029	U	0.028	U	0.029	U	0.028	U	0.030	U	0.028	U
Metals, Target Analyte																																		
Aluminum	7429-90-5	---	---	---	---	---	13,000		13,000		11,000		14,000		4,400		7,700		5,800		6,200		3,800		14,000		8,100		3,000		4,900		3,900	
Antimony	7440-36-0	---	---	---	---	---	0.96	U	0.89	U	1.4	U	0.89	U	0.94	U	0.9	U	0.92	U	0.87	U	0.92	U	0.9	U	0.93	U	0.91	U	0.95	U	0.90	U
Arsenic	7440-38-2	13	16	16	16	16	10		2.5		**16**		1.8		7.6		1.1		6.2		1.5		9.3		3.5		3.2		1.2		2.2		1.2	
Barium	7440-39-3	350	350	400	400	10,000	**1,500**		110		**1,600**		45		**540**		42		330		75		**2,100**		85		67		21		77		27	
Beryllium	7440-41-7	7.2	14	72	590	2,700	0.29		0.45		0.34	U	0.39		0.42		0.25		0.40		0.23		0.23	U	0.66		0.30		0.23	U	0.24	U	0.25	
Cadmium	7440-43-9	2.5	2.5	4.3	9.3	60	1.2		0.44	U	**2.5**		0.44	U	2.2		0.45	U	0.76		0.43	U	0.96		0.45	U	1.5		0.45	U	2.1		0.45	U
Calcium	7440-70-2	---	---	---	---	---	71,000		1,800		120,000		4,200		3,000		1,900		22,000		1,800		80,000		1,100	U	3,700		1,100	U	9,200		1,100	U
Chromium	7440-47-3	30	36	180	1500	6,800	**44**		**54**		**40**		**30**		22		29		17		20		24		**58**		24		9.6		13		13	
Chromium, Hexavalent	18540-29-9	1	22	110	400	800	*1.2*	*U*	*1.1*	*U*	*1.7*	*U*	*1.1*	*U*	*1.2*	*U*	*1.1*	*U*	*1.1*	*U*	*1.1*	*U*	*1.1*	*U*	*1.1*	*U*	*1.2*	*U*	*1.1*	*U*	*1.2*	*U*	*1.1*	*U*
Chromium, Trivalent	16065-83-1	30	36	180	1500	6,800	**44**		**54**		**40**		**30**		22		29		17		20		24		**58**		24		9.6		13		13	
Cobalt	7440-48-4	---	30	---	---	---	7.1		15		19		11		4.9		11		5.2		25		2.9	U	19		9.0		3.2		6.8		5.8	
Copper	7440-50-8	50	270	270	270	10,000	**140**		33		**160**		17		**94**		28		43		26		**98**		43		23		9.1		37		12	
Iron	7439-89-6	---	2,000	---	---	---	**41,000**		**76,000**		**120,000**		**30,000**		**33,000**		**47,000**		**21,000**		**59,000**		**19,000**		**73,000**		**34,000**		**13,000**		**17,000**		**18,000**	
Lead	7439-92-1	63	400	400	1,000	3,900	**2,100**		16		**2,900**		8.8		**1,200**		10		**340**		55		**570**		15		36		9.2		**130**		5.6	U
Magnesium	7439-95-4	---	---	---	---	---	7,300		3,300		8,600		8,000		1,200		3,000		9,200		1,700		30,000		4,500		5,700		1,200		1,800		1,300	
Manganese	7439-96-5	1,600	2,000	2,000	10,000	10,000	600		**1,700**		670		560		300		440		330		**2,700**		310		1,300		880		240		270		370	
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	**1.8**		0.093	U	**1.3**		0.093	U	**1.0**		0.094	U	**0.89**		**1.0**		**0.86**		0.094	U	0.097	U	0.095	U	0.12		0.094	U
Nickel	7440-02-0	30	140	310	310	10,000	24		24		26		23		13		18		13		16		11		**35**		18		6.7		18		9.0	
Potassium	7440-09-7	---	---	---	---	---	1,400		1,300		1,300		4,300		590	U	1,300		770		770		570	U	2,100		960		660		850		790	
Selenium	7782-49-2	3.9	36	180	1,500	6,800	3.7		2.2	U	3.4	U	2.2	U	2.4	U	2.2	U	2.3	U	2.2	U	2.3	U	2.2	U	2.3	U	2.3	U	2.4	U	2.2	U
Silver	7440-22-4	2	36	180	1,500	6,800	0.26		0.22	U	0.76		0.22	U	0.55		0.22	U	0.28		0.22	U	0.23	U	0.22	U	0.23	U	0.23	U	0.24	U	0.22	U
Sodium	7440-23-5	---	---	---	---	---	300	U	280	U	420	U	910		290	U	280	U	290	U	270	U	290	U	2,200		350		310		340		910	
Thallium	7440-28-0	---	---	---	---	---	0.48	U	0.44	U	0.68	U	0.44	U	0.47	U	0.45	U	0.46	U	0.43	U	0.46	U	0.45	U	0.47	U	0.45	U	0.48	U	0.45	U
Vanadium	7440-62-2	---	100	---	---	---	48		72		46		45		29		54		27		41		24		92		42		16		25		20	
Zinc	7440-66-6	109	2,200	10,000	10,000	10,000	**1,100**		69		**2,400**		48		**670**		50		**300**		86		**830**		82		65		21		**900**		28	
General Chemistry																																		
Cyanide, total	57-12-5	27	27	27	27	10,000	0.29	U	0.27	U	0.41	U	0.27	U	0.28	U	0.27	U	0.28	U	0.26	U	8.4		0.27	U	0.28	U	0.27	U	0.29	U	0.27	U

Notes:
Soil Cleanup Objectives are taken from the NYSDEC Subpart 375-6 Remedial Program SCOs (Revised Brownfields) criteria are from the NYSDEC Soil Cleanup Objective Tables 375-6.8(a
ft bgs - feet below ground surface
---: Criteria not established for the analyte
NA: Not analyzed
U: The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
J: The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
D: Compound analyzed at a secondary dilution factor.
B: analyte found in the analysis batch blank
*: Analytical results for these compounds are reported by the laboratory as both VOCs and SVOCs. NYSDEC only provides SCOs for these compounds as VOCs; therefore, the SVOC an
Total Chromium is compared to the Trivalent Chromium SCOs for screening purposes.
Italicized results indicate Reporting Limits (RL) greater than or equal to the most stringent criteria.

TABLE 1
SUMMARY OF HISTORICAL SOIL ANALYTICAL RESULTS
1921 Atlantic Avenue
Brooklyn, New York

Sample ID:		NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objectives					SB014		DUP001 (SB014)		SB014		SB015		SB015		SB016		SB016		SB017		SB017		SB018		SB019		SB020		SB021	
Laboratory Sample Number:			Protection of Public Health - Restricted Use SCOs				AD02620-007		AD02620-006		AD02620-008		AD02718-001		AD02718-002		AD02718-005		AD02718-006		AD02718-006		AD02718-008		AD03020-001		AD03020-004		AD03020-005		AD03020-006	
Sample Date:							2/14/2018		2/14/2018		2/14/2018		2/19/2018		2/19/2018		2/19/2018		2/19/2018		2/19/2018		2/19/2018		3/12/2018		3/12/2018		3/12/2018		3/12/2018	
Sample Depth (ft bgs):							0-2		0-2		4-6		6-8		18-20		13-15		18-20		8-10		12-14		0-2		0-2		0-2		0-2	
Units:	CAS Number	Unrestricted Use	Residential	Restricted-Residential	Commercial	Industrial	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q
Volatile Organics, NJDEP/TCL/Part 375 List																																
1,1,1-Trichloroethane	71-55-6	0.68	100	100	500	1,000	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
1,1,2,2-Tetrachloroethane	79-34-5	---	35	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	---	100	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	UJ	0.0020	UJ	0.0018	UJ	0.0018	UJ	0.0019	UJ	0.0019	UJ	0.0024	UJ	0.0031	U	0.0027	U	0.0026	U
1,1,2-Trichloroethane	79-00-5	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
1,1-Dichloroethane	75-34-3	0.27	19	26	240	480	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
1,1-Dichloroethylene	75-35-4	0.33	100	100	500	1,000	0.0024	U	0.0029	U	0.0023	U	0.0021	UJ	0.0020	UJ	0.0018	UJ	0.0018	UJ	0.0019	UJ	0.0019	UJ	0.0024	U	0.0031	U	0.0027	U	0.0026	U
1,2,3-Trichlorobenzene	87-61-6	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
1,2,4-Trichlorobenzene	120-82-1	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
1,2,4-Trimethylbenzene	95-63-6	3.6	47	52	190	380	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	U	0.0016	U	0.0014	U	0.0013	U
1,2-Dibromo-3-chloropropane	96-12-8	---	---	---	---	---	0.0024	UJ	0.0029	UJ	0.0023	UJ	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	UJ	0.0031	U	0.0027	U	0.0026	U
1,2-Dibromoethane	106-93-4	---	---	---	---	---	0.0012	U	0.0015	U	0.0011	U	0.00083	U	0.00077	U	0.00069	U	0.00070	U	0.00072	U	0.00076	U	0.0012	U	0.0016	U	0.0014	U	0.0013	U
1,2-Dichlorobenzene	95-50-1	1.1	100	100	500	1,000	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
1,2-Dichloroethane	107-06-2	0.02	2.3	3.1	30	60	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
1,2-Dichloropropane	78-87-5	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
1,3,5-Trimethylbenzene	108-67-8	8.4	47	52	190	380	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.0009	U	0.00093	U	0.00097	U	0.0012	U	0.0016	UJ	0.0014	UJ	0.0013	UJ
1,3-Dichlorobenzene	541-73-1	2.4	17	49	280	560	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	UJ	0.0027	UJ	0.0026	UJ
1,4-Dichlorobenzene	106-46-7	1.8	9.8	13	130	250	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	UJ	0.0027	UJ	0.0026	UJ
1,4-Dioxane	123-91-1	0.1	9.8	13	130	250	*0.12*	*UJ*	*0.15*	*UJ*	*0.11*	*UJ*	*0.11*	*UJ*	0.098	UJ	0.088	UJ	0.090	UJ	0.093	UJ	0.097	UJ	*0.12*	*UJ*	*0.16*	*UJ*	*0.14*	*UJ*	*0.13*	*UJ*
2-Butanone	78-93-3	0.12	100	100	500	1,000	0.0024	U	0.0029	U	0.0023	U	0.0074		0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
2-Hexanone	591-78-6	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	UJ	0.0020	UJ	0.0018	UJ	0.0018	UJ	0.0019	UJ	0.0019	UJ	0.0024	U	0.0031	U	0.0027	U	0.0026	U
4-Methyl-2-pentanone	108-10-1	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Acetone	67-64-1	0.05	100	100	500	1,000	0.012	U	0.015	U	0.011	U	0.024	J	0.0098	UJ	0.0088	UJ	0.0090	UJ	0.0093	UJ	0.0097	UJ	0.012	U	0.016	U	0.014	U	0.013	U
Benzene	71-43-2	0.06	2.9	4.8	44	89	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	U	0.0016	U	0.0014	U	0.0013	U
Bromochloromethane	74-97-5	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	UJ	0.0031	U	0.0027	U	0.0026	U
Bromodichloromethane	75-27-4	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	UJ	0.0020	UJ	0.0018	UJ	0.0018	UJ	0.0019	UJ	0.0019	UJ	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Bromoform	75-25-2	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	UJ	0.0031	UJ	0.0027	UJ	0.0026	UJ
Bromomethane	74-83-9	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	UJ	0.0020	UJ	0.0018	UJ	0.0018	UJ	0.0019	UJ	0.0019	UJ	0.0024	U	0.0031	UJ	0.0027	UJ	0.0026	UJ
Carbon disulfide	75-15-0	---	100	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	UJ	0.0020	UJ	0.0018	UJ	0.0018	UJ	0.0019	UJ	0.0019	UJ	0.0024	UJ	0.0031	U	0.0027	U	0.0026	U
Carbon tetrachloride	56-23-5	0.76	1.4	2.4	22	44	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Chlorobenzene	108-90-7	1.1	100	100	500	1,000	0.0024	U	0.0029	U	0.0023	U	0.0011	U	0.00098	U	0.00088	U	0.0009	U	0.00093	U	0.00097	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Chloroethane	75-00-3	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Chloroform	67-66-3	0.37	10	49	350	700	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Chloromethane	74-87-3	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
cis-1,2-Dichloroethylene	156-59-2	0.25	59	100	500	1,000	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	UJ	0.0031	U	0.0027	U	0.0026	U
cis-1,3-Dichloropropylene	10061-01-5	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	UJ	0.0031	U	0.0027	U	0.0026	U
Cyclohexane	110-82-7	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Dibromochloromethane	124-48-1	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Dichlorodifluoromethane	75-71-8	---	---	---	---	---	0.0024	UJ	0.0029	UJ	0.0023	UJ	0.0021	UJ	0.0020	UJ	0.0018	UJ	0.0018	UJ	0.0019	UJ	0.0019	UJ	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Ethyl Benzene	100-41-4	1	30	41	390	780	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	UJ	0.0016	UJ	0.0014	UJ	0.0013	UJ
Isopropylbenzene	98-82-8	---	100	---	---	---	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	U	0.0016	U	0.0014	U	0.0013	U
Methyl acetate	79-20-9	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	UJ	0.0020	UJ	0.0018	UJ	0.0018	UJ	0.0019	UJ	0.0019	UJ	0.0024	UJ	0.0031	U	0.0027	U	0.0026	U
Methyl tert-butyl ether (MTBE)	1634-04-4	0.93	62	100	500	1,000	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	U	0.0016	U	0.0014	U	0.0013	U
Methylcyclohexane	108-87-2	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Methylene chloride	75-09-2	0.05	51	100	500	1,000	0.0024	U	0.0029	U	0.0023	U	0.0021	UJ	0.0020	UJ	0.0018	UJ	0.0018	UJ	0.0019	UJ	0.0019	UJ	0.0024	U	0.0031	U	0.0027	U	0.0026	U
n-Butylbenzene	104-51-8	12	100	100	500	1,000	0.0012	U	0.0015	U	0.0011	U	0.0011	UJ	0.00098	UJ	0.00088	UJ	0.00090	UJ	0.00093	UJ	0.00097	UJ	0.0012	U	0.0016	U	0.0014	U	0.0013	U
n-Propylbenzene	103-65-1	3.9	100	100	500	1,000	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	U	0.0016	U	0.0014	U	0.0013	U
o-Xylene	95-47-6	0.26	100	100	500	1,000	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	UJ	0.0016	UJ	0.0014	UJ	0.0013	UJ
p- & m- Xylenes	179601-23-1	0.26	100	100	500	1,000	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	UJ	0.0016	UJ	0.0014	UJ	0.0013	UJ
sec-Butylbenzene	135-98-8	11	100	100	500	1,000	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	U	0.0016	U	0.0014	U	0.0013	U
Styrene	100-42-5	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
tert-Butylbenzene	98-06-6	5.9	100	100	500	1,000	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	U	0.0016	U	0.0014	U	0.0013	U
Tetrachloroethylene	127-18-4	1.3	5.5	19	150	300	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	UJ	0.0031	U	0.0027	U	0.0026	U
Toluene	108-88-3	0.7	100	100	500	1,000	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	U	0.0016	U	0.0014	U	0.0013	U
trans-1,2-Dichloroethylene	156-60-5	0.19	100	100	500	1,000	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
trans-1,3-Dichloropropylene	10061-02-6	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Trichloroethylene	79-01-6	0.47	10	21	200	400	0.0024	U	0.0029	U	0.0023	U	0.0021	U	0.0020	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Trichlorofluoromethane	75-69-4	---	---	---	---	---	0.0024	U	0.0029	U	0.0023	U	0.0021	UJ	0.0020	UJ	0.0018	UJ	0.0018	UJ	0.0019	UJ	0.0019	UJ	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Vinyl Chloride	75-01-4	0.02	0.21	0.9	13	27	0.0024	U	0.0029	U	0.0023	U	0.0021	UJ	0.0020	UJ	0.0018	UJ	0.0018	UJ	0.0019	UJ	0.0019	UJ	0.0024	U	0.0031	U	0.0027	U	0.0026	U
Xylenes, Total	1330-20-7	0.26	100	100	500	1,000	0.0012	U	0.0015	U	0.0011	U	0.0011	U	0.00098	U	0.00088	U	0.00090	U	0.00093	U	0.00097	U	0.0012	U	0.0016	U	0.0014	U	0.0013	U

TABLE 1
SUMMARY OF HISTORICAL SOIL ANALYTICAL RESULTS
1921 Atlantic Avenue
Brooklyn, New York

Sample ID:		NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objectives					SB014		DUP001 (SB014)		SB014		SB015		SB015		SB016		SB016		SB017		SB017		SB018		SB019		SB020		SB021	
Laboratory Sample Number:			Protection of Public Health - Restricted Use SCOs				AD02620-007		AD02620-006		AD02620-008		AD02718-001		AD02718-002		AD02718-005		AD02718-006		AD02718-006		AD02718-008		AD03020-001		AD03020-004		AD03020-005		AD03020-006	
Sample Date:	CAS Number	Unrestricted Use	Residential	Restricted-Residential	Commercial	Industrial	2/14/2018		2/14/2018		2/14/2018		2/19/2018		2/19/2018		2/19/2018		2/19/2018		2/19/2018		2/19/2018		3/12/2018		3/12/2018		3/12/2018		3/12/2018	
Sample Depth (ft bgs):							0-2		0-2		4-6		6-8		18-20		13-15		18-20		8-10		12-14		0-2		0-2		0-2		0-2	
Units:		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q
Semi-Volatiles, NJDEP/TCL/Part 375 List																																
1,1'-Biphenyl	92-52-4	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
1,2,4,5-Tetrachlorobenzene	95-94-3	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
2,3,4,6-Tetrachlorophenol	58-90-2	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
2,4,5-Trichlorophenol	95-95-4	—	100	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
2,4,6-Trichlorophenol	88-06-2	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
2,4-Dichlorophenol	120-83-2	—	100	—	—	—	0.010	UJ	0.031	UJ	0.0094	UJ	0.010	U	0.0094	U	0.0094	U	0.0098	U	0.0098	U	0.0093	U	0.0099	U	0.21	U	0.052	U	0.029	U
2,4-Dimethylphenol	105-67-9	—	—	—	—	—	0.010	U	0.031	U	0.0094	U	0.010	U	0.0094	U	0.0094	U	0.0098	U	0.0098	U	0.0093	U	0.0099	U	0.21	U	0.052	U	0.029	U
2,4-Dinitrophenol	51-28-5	—	100	—	—	—	0.20	UJ	0.62	UJ	0.19	UJ	0.20	U	0.19	U	0.19	U	0.20	U	0.20	U	0.19	U	0.2	U	4.2	U	1	U	0.59	U
2,4-Dinitrotoluene	121-14-2	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
2,6-Dinitrotoluene	606-20-2	—	1.03	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
2-Chloronaphthalene	91-58-7	—	—	—	—	—	0.040	UJ	0.12	UJ	0.037	UJ	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
2-Chlorophenol	95-57-8	—	100	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
2-Methylnaphthalene	91-57-6	—	0.41	—	—	—	0.040	UJ	0.12	UJ	0.037	UJ	0.041	U	0.037	UJ	0.037	U	0.039	U	0.039	U	0.037	U	0.22		**1.8**	**D**	0.23	D	0.12	U
2-Methylphenol	95-48-7	0.33	100	100	500	1,000	0.010	U	0.031	U	0.0094	U	0.010	U	0.0094	U	0.0094	U	0.0098	U	0.0098	U	0.0093	U	0.0099	U	0.21	U	0.052	U	0.029	U
2-Nitroaniline	88-74-4	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	UJ	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
2-Nitrophenol	88-75-5	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	UJ	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
3- & 4-Methylphenols	65794-96-9	330	34,000	100,000	500,000	1,000,000	0.010	U	0.031	U	0.0094	U	0.010	U	0.0094	UJ	0.0094	U	0.0098	U	0.0098	U	0.0093	U	0.0099	U	0.21	U	0.052	U	0.029	U
3,3'-Dichlorobenzidine	91-94-1	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
3-Nitroaniline	99-09-2	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
4-Chloroaniline	106-47-8	—	100	—	—	—	0.010	U	0.031	U	0.0094	U	0.010	U	0.0094	U	0.0094	U	0.0098	U	0.0098	U	0.0093	U	0.0099	U	0.21	U	0.052	U	0.029	U
4,6-Dinitro-2-methylphenol	534-52-1	—	—	—	—	—	0.20	U	0.62	U	0.19	U	0.20	U	0.19	UJ	0.19	U	0.20	U	0.20	U	0.19	U	0.2	UJ	4.2	U	1	UJ	0.59	U
4-Bromophenyl phenyl ether	101-55-3	—	—	—	—	—	0.040	U	0.12	U	0.037	UJ	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
4-Chlorophenyl phenyl ether	7005-72-3	—	—	—	—	—	0.040	UJ	0.12	UJ	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
4-Chloro-3-methylphenol	59-50-7	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
4-Nitroaniline	100-01-6	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
4-Nitrophenol	100-02-7	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
Acenaphthene	83-32-9	20	100	100	500	1,000	0.099		0.73	D	0.048		0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.4		3.8	D	0.95	D	0.24	D
Acenaphthylene	208-96-8	100	100	100	500	1,000	0.073		0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.043		1.5	D	0.66	D	0.21	D
Acetophenone	98-86-2	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.12		0.83	U	0.21	U	0.21	U
Anthracene	120-12-7	100	100	100	500	1,000	0.21	J	1.0	JD	0.083	J	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.78		8.7	D	2.6	D	0.6	D
Atrazine	1912-24-9	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
Benzaldehyde	100-52-7	—	—	—	—	—	0.040	U	0.12	UJ	0.037	U	0.041	UJ	0.037	UJ	0.037	UJ	0.039	UJ	0.039	UJ	0.037	UJ	0.04	UJ	0.83	UJ	0.21	UJ	0.12	UJ
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	0.80		**2.4**	**D**	0.32		0.044		0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	**1.8**		**24**	**D**	**8.7**	**D**	**2.2**	**D**
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	0.81	J	**2.2**	**JD**	0.31	J	0.041		0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	**1.6**		**20**	**D**	**7.2**	**D**	**2**	**D**
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	**1.2**		**3.1**	**D**	0.43		0.058		0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	**2**		**25**	**D**	**9.8**	**D**	**2.8**	**D**
Benzo(g,h,i)perylene	191-24-2	100	100	100	500	1,000	0.54		1.3	D	0.18		0.025		0.0094	U	0.0094	U	0.0098	U	0.0098	U	0.0093	U	0.91		12	D	3.9	D	1	D
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	0.33		**0.89**	**D**	0.13		0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.74		**9.7**	**D**	**3.6**	**D**	**0.99**	**D**
Benzyl butyl phthalate	85-68-7	—	100	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.24		1.1	D	0.21	U	1.3	D
Bis(2-chloroethoxy)methane	111-91-1	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
Bis(2-chloroethyl)ether	111-44-4	—	—	—	—	—	0.010	U	0.031	U	0.0094	U	0.010	U	0.0094	U	0.0094	U	0.0098	U	0.0098	U	0.0093	U	0.0099	U	0.21	U	0.052	U	0.029	U
Bis(2-chloroisopropyl)ether	108-60-1	—	—	—	—	—	0.040	UJ	0.12	UJ	0.037	UJ	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
Bis(2-ethylhexyl)phthalate	117-81-7	—	50	—	—	—	0.11		0.12	U	0.037	U	0.041	U	0.037	U	0.044		0.039	U	0.039	U	0.037	U	0.79		23	D	1.1	D	0.39	D
Caprolactam	105-60-2	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.081		0.83	U	0.21	U	0.12	U
Carbazole	86-74-8	—	—	—	—	—	0.13		0.55	D	0.044		0.041	U	0.037	UJ	0.037	U	0.039	U	0.039	U	0.037	U	0.37		2.9	D	1.3	D	0.3	D
Chrysene	218-01-9	1	1	3.9	56	110	0.88	J	**2.4**	**JD**	0.33	J	0.045		0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	**1.7**		**25**	**D**	**8.9**	**D**	**2.3**	**D**
Dibenzo(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	0.14		**0.38**	**D**	0.052		0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.26		**3.9**	**D**	**1.3**	**D**	**0.33**	**D**
Dibenzofuran	132-64-9	7	14	59	350	1,000	0.051	J	0.32	JD	0.034	J	0.010	U	0.0094	U	0.0094	U	0.0098	U	0.0098	U	0.0093	U	0.21		2.4	D	0.58	D	0.12	D
Diethyl phthalate	84-66-2	—	100	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
Dimethyl phthalate	131-11-3	—	100	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
Di-n-butyl phthalate	84-74-2	—	100	—	—	—	0.010	U	0.031	U	0.0094	U	0.010	U	0.0094	U	0.0094	U	0.0098	U	0.0098	U	0.0093	U	0.048		6.4	D	0.052	U	0.071	D
Di-n-octyl phthalate	117-84-0	—	100	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
Fluoranthene	206-44-0	100	100	100	500	1,000	1.9		6.0	D	0.67		0.096		0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	3.7		46	D	17	D	4.2	D
Fluorene	86-73-7	30	100	100	500	1,000	0.085		0.54	D	0.040		0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.28		4.4	D	0.93	D	0.22	D
Hexachlorobenzene	118-74-1	0.33	0.33	1.2	6	12	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	*0.83*	*U*	0.21	U	0.12	U
Hexachlorobutadiene	87-68-3	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
Hexachlorocyclopentadiene	77-47-4	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	UJ	0.83	UJ	0.21	UJ	0.12	UJ
Hexachloroethane	67-72-1	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	0.5	0.5	5.6	11	0.49		**1.2**	**D**	0.17		0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	**0.85**		**11**	**D**	**3.8**	**D**	**1**	**D**
Isophorone	78-59-1	—	100	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
Naphthalene	91-20-3	12	100	100	500	1,000	0.040		0.17	D	0.021		0.010	U	0.0094	U	0.0094	U	0.0098	U	0.0098	U	0.0093	U	0.17		2.1	D	0.37	D	0.21	D
Nitrobenzene	98-95-3	—	3.7	15	69	140	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	UJ	0.12	U
N-nitroso-di-n-propylamine	621-64-7	—	—	—	—	—	0.010	U	0.031	U	0.0094	U	0.010	U	0.0094	U	0.0094	U	0.0098	U	0.0098	U	0.0093	U	0.0099	U	0.21	U	0.052	U	0.029	U
N-Nitrosodiphenylamine	86-30-6	—	—	—	—	—	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	0.83	U	0.21	U	0.12	U
Pentachlorophenol	87-86-5	0.8	2.4	6.7	6.7	55	0.20	U	0.62	U	0.19	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.2	U	*4.2*	*UJ*	*1*	*U*	0.59	UJ
Phenanthrene	85-01-8	100	100	100	500	1,000	1.3		5.6	D	0.43		0.054		0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	3.4		43	D	14	D	2.9	D
Phenol	108-95-2	0.33	100	100	500	1,000	0.040	U	0.12	U	0.037	U	0.041	U	0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	0.04	U	*0.83*	*U*	0.21	U	0.12	U
Pyrene	129-00-0	100	100	100	500	1,000	1.7		5.1	D	0.62		0.090		0.037	U	0.037	U	0.039	U	0.039	U	0.037	U	3.5		46	D	16	D	4.1	D

TABLE 1
SUMMARY OF HISTORICAL SOIL ANALYTICAL RESULTS
1921 Atlantic Avenue
Brooklyn, New York

Sample ID:		NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objectives					SB014		DUP001 (SB014)		SB014		SB015		SB015		SB016		SB016		SB017		SB017		SB018		SB019		SB020		SB021	
Laboratory Sample Number:			Protection of Public Health - Restricted Use SCOs				AD02620-007		AD02620-006		AD02620-008		AD02718-001		AD02718-002		AD02718-005		AD02718-006		AD02718-006		AD02718-008		AD03020-001		AD03020-004		AD03020-005		AD03020-006	
Sample Date:							2/14/2018		2/14/2018		2/14/2018		2/19/2018		2/19/2018		2/19/2018		2/19/2018		2/19/2018		2/19/2018		3/12/2018		3/12/2018		3/12/2018		3/12/2018	
Sample Depth (ft bgs):							0-2		0-2		4-6		6-8		18-20		13-15		18-20		8-10		12-14		0-2		0-2		0-2		0-2	
Units:	CAS Number	Unrestricted Use mg/kg	Residential mg/kg	Restricted-Residential mg/kg	Commercial mg/kg	Industrial mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q
Herbicides, NJDEP/TCL/Part 375 List																																
2,4,5-T	93-76-5	---	100	---	---	---	0.012	U	0.012	U	0.011	U	0.012	U	0.011	U	0.011	U	0.012	U	0.012	U	0.011	U	0.012	U	0.013	U	0.013	U	0.012	U
2,4,5-TP (Silvex)	93-72-1	3.8	58	100	500	1,000	0.012	U	0.012	U	0.011	U	0.012	U	0.011	U	0.011	U	0.012	U	0.012	U	0.011	U	0.012	U	0.013	U	0.013	U	0.012	U
2,4-D	94-75-7	---	100	---	---	---	0.012	U	0.012	U	0.011	U	0.012	U	0.011	U	0.011	U	0.012	U	0.012	U	0.011	U	0.012	U	0.013	U	0.013	U	0.012	U
Dicamba	1918-00-9	---	---	---	---	---	0.012	UJ	0.012	UJ	0.011	UJ	0.012	UJ	0.011	UJ	0.011	UJ	0.012	UJ	0.012	UJ	0.011	UJ	0.012	UJ	0.013	UJ	0.013	UJ	0.012	UJ
Pesticides, EPA TCL List																																
4,4'-DDD	72-54-8	0.0033	2.6	13	92	180	0.0030	U	0.0031	U	0.0028	U	0.0030	U	0.0028	U	0.0028	U	0.0029	U	0.0029	U	0.0028	U	0.003	U	**0.19**	**JD**	0.0031	U	*0.29*	*U*
4,4'-DDE	72-55-9	0.0033	1.8	8.9	62	120	**0.013**		**0.017**		0.0028	U	0.0030	U	0.0028	U	0.0028	U	0.0029	U	0.0029	U	0.0028	U	**0.012**	**J**	**0.38**	**D**	**0.065**		*0.29*	*U*
4,4'-DDT	50-29-3	0.0033	1.7	7.9	47	94	**0.012**	**J**	**0.025**		0.0028	U	0.0030	U	0.0028	U	0.0028	U	0.0029	U	0.0029	U	0.0028	U	**0.084**		**2.3**	**D**	**0.21**		*0.29*	*U*
Aldrin	309-00-2	0.005	0.019	0.097	0.68	1.4	*0.0060*	*U*	*0.0063*	*U*	*0.0056*	*U*	*0.0061*	*U*	*0.0056*	*U*	*0.0056*	*U*	*0.0059*	*U*	*0.0059*	*U*	*0.0056*	*U*	*0.006*	*U*	*0.13*	*U*	*0.0063*	*U*	*0.59*	*U*
alpha-BHC	319-84-6	0.02	0.097	0.48	3.4	6.8	0.0012	U	0.0013	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0012	U	0.0012	U	0.0011	U	0.0012	U	*0.025*	*U*	0.0013	U	*0.12*	*U*
alpha-Chlordane	5103-71-9	0.094	0.91	4.2	24	47	0.0060	U	0.0063	U	0.0056	U	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.0065	J	**0.3**	**JD**	0.017	J	**11**	**JD**
beta-BHC	319-85-7	0.036	0.072	0.36	3	14	0.0012	U	0.0013	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0012	U	0.0012	U	0.0011	U	0.0012	U	0.025	UJ	0.0013	U	*0.12*	*UJ*
Chlordane, total	57-74-9	---	---	---	---	---	0.0060	U	0.0063	U	0.0056	U	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.016		0.69	D	0.044		24	D
delta-BHC	319-86-8	0.04	100	100	500	1,000	0.0060	U	0.0063	U	0.0056	U	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.006	U	*0.13*	*U*	0.0063	U	*0.59*	*U*
Dieldrin	60-57-1	0.005	0.039	0.2	1.4	2.8	0.0012	U	0.0013	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0012	U	0.0012	U	0.0011	U	0.0012	U	*0.025*	*U*	**0.012**	**J**	*0.12*	*U*
Endosulfan I	959-98-8	2.4	4.8	24	200	920	0.0060	U	0.0063	U	0.0056	U	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.006	U	0.13	U	0.0063	U	0.59	U
Endosulfan II	33213-65-9	2.4	4.8	24	200	920	0.0060	U	0.0063	U	0.0056	U	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.006	U	0.13	U	0.0063	U	0.59	U
Endosulfan sulfate	1031-07-8	2.4	4.8	24	200	920	0.0060	U	0.0063	U	0.0056	U	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.006	U	0.13	U	0.0063	U	0.59	U
Endrin	72-20-8	0.014	2.2	11	89	410	0.0060	UJ	0.0063	UJ	0.0056	UJ	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.006	U	*0.13*	*UJ*	0.0063	U	*0.59*	*UJ*
Endrin aldehyde	7421-93-4	---	---	---	---	---	0.0060	U	0.0063	U	0.0056	U	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.006	U	0.13	U	0.0063	U	0.59	U
Endrin ketone	53494-70-5	---	---	---	---	---	0.0060	UJ	0.0063	UJ	0.0056	UJ	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.006	U	0.13	UJ	0.0063	U	0.59	UJ
gamma-BHC (Lindane)	58-89-9	0.1	0.28	1.3	9.2	23	0.0012	U	0.0013	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0012	U	0.0012	U	0.0011	U	0.0012	U	0.025	U	0.0013	U	*0.12*	*U*
gamma-Chlordane	5566-34-7	---	---	---	---	---	0.0060	U	0.0063	U	0.0056	U	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.0094		0.39	D	0.027		13	D
Heptachlor	76-44-8	---	0.42	2.1	15	29	0.0060	UJ	0.0063	UJ	0.0056	UJ	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.006	U	0.13	U	0.0063	U	*0.59*	*U*
Heptachlor epoxide	1024-57-3	---	0.077	---	---	---	0.0060	U	0.0063	U	0.0056	U	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.006	U	*0.13*	*U*	0.0063	U	*0.59*	*U*
Methoxychlor	72-43-5	---	100	---	---	---	0.0060	UJ	0.0063	UJ	0.0056	UJ	0.0061	U	0.0056	U	0.0056	U	0.0059	U	0.0059	U	0.0056	U	0.006	U	0.13	UJ	0.0063	U	0.59	UJ
Toxaphene	8001-35-2	---	---	---	---	---	0.030	U	0.031	U	0.028	U	0.030	U	0.028	U	0.028	U	0.029	U	0.029	U	0.028	U	0.03	U	0.63	U	0.031	U	2.9	U
PCBs, EPA TCL List																																
Aroclor 1016	12674-11-2	0.1	1	1	1	25	0.030	U	0.031	U	0.028	U	0.030	U	0.028	U	0.028	U	0.029	U	0.029	U	0.028	U	0.03	U	0.031	U	0.031	U	0.029	U
Aroclor 1221	11104-28-2	0.1	1	1	1	25	0.030	U	0.031	U	0.028	U	0.030	U	0.028	U	0.028	U	0.029	U	0.029	U	0.028	U	0.03	U	0.031	U	0.031	U	0.029	U
Aroclor 1232	11141-16-5	0.1	1	1	1	25	0.030	U	0.031	U	0.028	U	0.030	U	0.028	U	0.028	U	0.029	U	0.029	U	0.028	U	0.03	U	0.031	U	0.031	U	0.029	U
Aroclor 1242	53469-21-9	0.1	1	1	1	25	0.030	U	0.031	U	0.028	U	0.030	U	0.028	U	0.028	U	0.029	U	0.029	U	0.028	U	0.03	U	0.031	U	0.031	U	0.029	U
Aroclor 1248	12672-29-6	0.1	1	1	1	25	0.030	U	0.031	U	0.028	U	0.030	U	0.028	U	0.028	U	0.029	U	0.029	U	0.028	U	0.03	U	0.031	U	0.031	U	0.029	U
Aroclor 1254	11097-69-1	0.1	1	1	1	25	0.030	U	0.031	U	0.028	U	0.030	U	0.028	U	0.028	U	0.029	U	0.029	U	0.028	U	0.03	U	**0.79**		**0.42**		0.029	U
Aroclor 1260	11096-82-5	0.1	1	1	1	25	0.030	U	0.031	U	0.028	U	0.030	U	0.028	U	0.028	U	0.029	U	0.029	U	0.028	U	0.03	U	0.031	U	0.031	U	0.029	U
Aroclor 1262	37324-23-5	0.1	1	1	1	25	0.030	U	0.031	U	0.028	U	0.030	U	0.028	U	0.028	U	0.029	U	0.029	U	0.028	U	0.03	U	0.031	U	0.031	U	0.029	U
Aroclor 1268	11100-14-4	0.1	1	1	1	25	0.030	U	0.031	U	0.028	U	0.030	U	0.028	U	0.028	U	0.029	U	0.029	U	0.028	U	0.03	U	0.031	U	0.031	U	0.029	U
Total PCBs	1336-36-3	0.1	1	1	1	25	0.030	U	0.031	U	0.028	U	0.030	U	0.028	U	0.028	U	0.029	U	0.029	U	0.028	U	0.03	U	**0.79**		**0.42**		0.029	U
Metals, Target Analyte																																
Aluminum	7429-90-5	---	---	---	---	---	5,200		5,900		4,600		13,000	J	7,000	J	11,000	J	12,000	J	8,100	J	4,800	J	5,600		13,000		3,200		4,100	
Antimony	7440-36-0	---	---	---	---	---	0.96	U	1.0	U	0.90	U	0.98	UJ	0.90	UJ	0.90	UJ	0.94	UJ	0.94	UJ	0.89	UJ	0.95	UJ	1	UJ	1	UJ	0.94	UJ
Arsenic	7440-38-2	13	16	16	16	16	8.5		**13**		4.5		5.8	J	1.5	J	1.7	J	3.0	J	1.9	J	1.2	J	4.6	J	5.8	J	4.7	J	4.4	J
Barium	7440-39-3	350	350	400	400	10,000	190		220		47		64	J	47	J	66	J	65	J	51	J	28	J	330	J	**1,600**	**J**	**440**	**J**	320	J
Beryllium	7440-41-7	7.2	14	72	590	2,700	0.27		0.30		0.34		0.56	J	0.34	J	0.34	J	0.29	J	0.36	J	0.27	J	0.24		0.34		0.28		0.3	
Cadmium	7440-43-9	2.5	2.5	4.3	9.3	60	0.48	U	0.50	U	0.45	U	0.49	U	0.45	U	0.45	U	0.47	U	0.47	U	0.44	U	**4.7**	**J**	**3**	**J**	1.1	J	1.2	J
Calcium	7440-70-2	---	---	---	---	---	1,600		1,700		1,100	U	1,900		1,400		2,300		4,200		1,200		1,200		20,000	J	160,000	JD	5,600	J	87,000	J
Chromium	7440-47-3	30	36	180	1500	6,800	13		16		15		**260**		24		**38**		**41**		28		20		24		**36**		14		13	
Chromium, Hexavalent	18540-29-9	1	22	110	400	800	*1.2*	*U*	*1.2*	*U*	*1.1*	*U*	*1.2*	*UJ*	*1.1*	*UJ*	*1.1*	*UJ*	*1.2*	*UJ*	*1.2*	*UJ*	*1.1*	*UJ*	*1.2*	*U*	*1.2*	*U*	*1.2*	*U*	*1.2*	*U*
Chromium, Trivalent	16065-83-1	30	36	180	1500	6,800	13		16		15		**260**		24		**38**		**41**		28		20		24		**36**		14		13	
Cobalt	7440-48-4	---	30	---	---	---	4.6		5.0		5.3		11		10		11		19		10		7.8		6.6		12		3.1	U	4.5	
Copper	7440-50-8	50	270	270	270	10,000	**59**		**58**		20		26		18		22		35		21		16		**59**	**J**	**71**	**J**	**59**	**J**	**64**	**J**
Iron	7439-89-6	---	2,000	---	---	---	**16,000**		**18,000**		**22,000**		**38,000**	**J**	**35,000**	**J**	**43,000**	**J**	**44,000**	**J**	**58,000**	**J**	**43,000**	**J**	**21,000**	**J**	**23,000**	**J**	**14,000**	**J**	**19,000**	**J**
Lead	7439-92-1	63	400	400	1,000	3,900	**430**		**560**		**69**		28		9.5		11		14		10		5.6	U	**660**		**7,500**	**D**	**680**		**590**	
Magnesium	7439-95-4	---	---	---	---	---	1,300		1,300		1,200		2,800	J	2,600	J	5,500	J	4,600	J	2,900	J	2,100	J	2,900	J	29,000	J	1,700	J	1,700	J
Manganese	7439-96-5	1,600	2,000	2,000	10,000	10,000	280		280		400		390	J	490	J	660	J	690	J	940	J	380	J	300	J	**1,900**	**J**	170	J	260	J
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	**0.8**		**0.76**		**0.18**		0.1	U	0.094	U	0.094	U	0.098	U	0.098	U	0.093	U	**0.32**		**0.9**		**0.6**		**0.57**	
Nickel	7440-02-0	30	140	310	310	10,000	9.5		10		9.1		21		16		23		28		19		13		17		22		10		12	
Potassium	7440-09-7	---	---	---	---	---	730		670		580		960		1,300		2,400		1,500		1,200		850		710		1,600		620	U	590	U
Selenium	7782-49-2	3.9	36	180	1,500	6,800	2.4	U	2.5	U	2.2	U	2.4	UJ	2.2	UJ	2.2	UJ	2.4	UJ	2.4	UJ	2.2	UJ	2.4	U	2.5	U	2.5	U	2.4	U
Silver	7440-22-4	2	36	180	1,500	6,800	0.24	U	0.25	U	0.22	U	0.24	UJ	0.22	UJ	0.22	UJ	0.24	UJ	0.24	UJ	0.22	UJ	0.24	UJ	0.31	J	0.25	UJ	0.24	UJ
Sodium	7440-23-5	---	---	---	---	---	350		380		390		300	U	750		420		350		290	U	280	U	300	U	760		310	U	290	U
Thallium	7440-28-0	---	---	---	---	---	0.48	U	0.50	U	0.45	U	0.49	U	0.45	U	0.45	U	0.47	U	0.47	U	0.44	U	0.48	U	0.5	U	0.5	U	0.47	U
Vanadium	7440-62-2	---	100	---	---	---	27		31		22		53		44		58		50		61		33		23		43		15		21	
Zinc	7440-66-6	109	2,200	10,000	10,000	10,000	**150**		**170**		84		52	J	46	J	56	J	59	J	61	J	35	J	**2,700**		**5,600**		**440**		**400**	
General Chemistry																																
Cyanide, total	57-12-5	27	27	27	27	10,000	0.29	U	0.30	U	0.27	U	0.29	U	0.27	U	0.27	U	0.28	U	0.28	U	0.27	U	0.77		0.97		0.3	U	0.28	U

Notes:
Soil Cleanup Objectives are taken from the NYSDEC Subpart 375-6 Remedial Program SCOs (Revised Brownfields) criteria are from the NYSDEC Soil Cleanup Objective Tables 375-6.8(a
ft bgs - feet below ground surface
---: Criteria not established for the analyte
NA: Not analyzed
U: The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
J: The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
D: Compound analyzed at a secondary dilution factor.
B: analyte found in the analysis batch blank
*: Analytical results for these compounds are reported by the laboratory as both VOCs and SVOCs. NYSDEC only provides SCOs for these compounds as VOCs; therefore, the SVOC an
Total Chromium is compared to the Trivalent Chromium SCOs for screening purposes.
Italicized results indicate Reporting Limits (RL) greater than or equal to the most stringent criteria.

TABLE 2
SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
1921 ATLANTIC AVENUE
BROOKLYN, NEW YORK

Sample ID: / Laboratory Sample Number: / Sampling Date: / Units:	CAS Number	TOGS 1.1.1 ug/L	Part 703 ug/L	Ground Water Quality Standards[1] ug/L	MW001 AD01573-001/-008 12/6/2017 ug/L	Q	MW002 AD01573-002/-009 12/6/2017 ug/L	Q	DUP (MW002) AD01573-005/-012 12/6/2017 ug/L	Q	MW003 AD01714-001/-002 12/13/2017 ug/L	Q	MW004 AD01714-003/-004 12/13/2017 ug/L	Q
Volatile Organic Compounds (VOCs)														
1,1-Dichloroethane	75-34-3	5	5	5	1	U	1	U	1	U	1	UJ	1	U
1,1-Dichloroethene	75-35-4	5	5	5	1	U	1	U	1	U	1	UJ	1	U
1,1,1-Trichloroethane	71-55-6	5	5	5	1	U	1	U	1	U	1	UJ	1	U
1,1,2-Trichloroethane	79-00-5	1	1	1	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1,2,2-Tetrachloroethane	79-34-5	5	5	5	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	95-50-1	3	3	3	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	107-06-2	0.6	0.6	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethene (cis)	156-59-2	5	5	5	1	U	1	U	1	U	1	UJ	1	U
1,2-Dichloroethene (trans)	156-60-5	5	5	5	1	U	1	U	1	U	1	UJ	1	U
1,2-Dichloropropane	78-87-5	1	1	1	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dibromo-3-chloropropane	96-12-8	0.04	0.04	0.04	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dibromoethane	106-93-4	0.0006	0.0006	0.0006	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,3-Trichlorobenzene	87-61-6	5	5	5	1	U	1	U	1	U	1	U	1	U
1,2,2-Trifluorethane (113 Freon)	76-13-1	5	5	5	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	120-82-1	5	5	5	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	95-63-6	5	5	5	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	108-67-8	5	5	5	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropene (cis)	10061-01-5	---	0.4	0.4	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,3-Dichloropropene (trans)	10061-02-6	---	0.4	0.4	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,3-Dichlorobenzene	541-73-1	3	3	3	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	106-46-7	3	3	3	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	123-91-1	---	---	---	50	U	50	U	50	U	50	UJ	50	U
2-Butanone	78-93-3	50	---	50	1	U	1	U	1	U	1	U	1	U
Acetone	67-64-1	50	---	50	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	1	1	1	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U
Bromochloromethane	74-97-5	5	5	5	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	75-27-4	50	---	50	1	U	1	U	1	U	1	UJ	1	U
Bromoform	75-25-2	50	---	50	1	U	1	U	1	U	1	U	1	U
Bromomethane	74-83-9	5	5	5	1	U	1	U	1	U	1	U	1	U
n-Butylbenzene	104-51-8	5	5	5	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	75-15-0	---	60	60	1	U	1	U	1	U	1	U	1	U
Carbon tetrachloride	56-23-5	5	5	5	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	108-90-7	5	5	5	1	U	1	U	1	U	1	U	1	U
Chloroethane	75-00-3	5	5	5	1	U	1	U	1	U	1	U	1	U
Chloroform	67-66-3	7	7	7	1	U	2.6		3		3		1	U
Chloromethane	19961-13-8	---	---	---	1	U	1	U	1	U	1	U	1	U
Cyclohexane	110-82-7	---	---	---	1	U	1	U	1	U	1	U	1	U
Dibromochloromethane	124-48-1	50	---	50	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	75-71-8	5	5	5	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	100-41-4	5	5	5	1	U	1	U	1	U	1	U	1	U
Ethylene Dibromide	106-93-4	0.0006	0.0006	0.0006	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
2-Hexanone	591-78-6	50	---	50	1	U	1	U	1	U	1	U	1	U
Isopropyl Benzene	98-82-8	5	5	5	1	U	1	U	1	U	1	U	1	U
Methyl acetate	79-20-9	---	---	---	1	U	1	U	1	U	1	U	1	U
Methyl ethyl ketone (MEK / 2-butanone)	78-93-3	50	---	50	1	U	1	U	1	U	1	U	1	U
Methyl tert-butyl ether	1634-04-4	---	---	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	75-09-2	5	5	5	1	U	1	U	1	U	1	UJ	1	U
Methylcyclohexane	108-87-2	---	---	---	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	108-10-1	---	---	---	1	U	1	U	1	U	1	U	1	U
Naphthalene	91-20-3	10	10	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Propylbenzene-n	103-65-1	5	5	5	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	135-98-8	5	5	5	1	U	1	U	1	U	1	U	1	U
Styrene	100-42-5	5	5	5	1	U	1	U	1	U	1	U	1	U
Tert-Butylbenzene	98-06-6	5	5	5	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	127-18-4	5	5	5	1	U	1	U	1	U	1	U	1	U
Toluene	108-88-3	5	5	5	1	U	1	U	1	U	1	U	1	U
Trichloroethene	79-01-6	5	5	5	1	U	1	U	1	U	1	U	1	U
Trichlorofluoromethane (Freon 11)	75-69-4	5	5	5	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	75-01-4	2	2	2	1	U	1	U	1	U	1	U	1	U
1,2-Xylene (o-Xylene)	95-47-6	5	5	5	1	U	1	U	1	U	1	U	1	U
m&p-Xylene	179601-23-1	5	5	5	1	U	1	U	1	U	1	U	1	U
Xylene (mixed)	1330-20-7	5	5	5	1	U	1	U	1	U	1	U	1	U
Semi-Volatile Organic Compounds (SVOCs)														
1,1'-Biphenyl	92-52-4	5	5	5	2	U	2	U	2	U	2	U	2	U
1,2,4,5-Tetrachlorobenzene	12408-10-5	5	5	5	2	U	2	U	2	U	2	U	2	U
2-Chloronaphthalene	91-58-7	10	---	10	2	U	2	U	2	U	2	U	2	U
2-Chlorophenol	95-57-8	---	---	---	2	U	2	U	2	U	2	UJ	2	U
2-Methylnaphthalene	91-57-6	---	---	---	2	U	2	U	2	U	2	U	2	U
2-Methylphenol	95-48-7	---	---	---	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Nitroaniline	88-74-4	5	5	5	2	U	2	U	2	U	2	U	2	U
2-Nitrophenol	88-75-5	---	---	---	2	U	2	U	2	U	2	U	2	U
2,3,4,6-Tetrachlorophenol	58-90-2	---	---	---	2	U	2	U	2	U	2	U	2	U
2,4-Dichlorophenol	120-83-2	1	1	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,4-Dimethylphenol	105-67-9	1	1	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,4-Dinitrophenol	51-28-5	1	1	1	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
2,4-Dinitrotoluene	121-14-2	5	5	5	2	U	2	U	2	U	2	U	2	U
2,4,5-Trichlorophenol	95-95-4	---	---	---	2	U	2	U	2	U	2	U	2	U
2,4,6-Trichlorophenol	88-06-2	---	---	---	2	U	2	U	2	U	2	U	2	U
2,6-Dinitrotoluene	606-20-2	5	5	5	2	U	2	U	2	U	2	U	2	U
3-Nitroaniline	99-09-2	5	5	5	2	U	2	U	2	U	2	U	2	U
3,3'-Dichlorobenzidine	91-94-1	5	5	5	2	U	2	U	2	U	2	U	2	U
3- & 4-Methylphenols	65794-96-9	---	---	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
4-Bromophenyl phenyl ether	101-55-3	---	---	---	2	U	2	U	2	U	2	U	2	U
4-Chloro-3-methylphenol	59-50-7	---	---	---	2	U	2	U	2	U	2	U	2	U
4-Chloroaniline	106-47-8	5	5	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
4-Chlorophenyl phenyl ether	7005-72-3	---	---	---	2	U	2	U	2	U	2	U	2	U
4-Nitroaniline	100-01-6	5	5	5	2	U	2	U	2	U	2	U	2	U
4-Nitrophenol	100-02-7	---	---	1	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
4,6-Dinitro-2-methylphenol	534-52-1	---	---	---	10	U	10	U	10	U	10	U	10	U
Acenaphthene	83-32-9	20	---	20	2	U	2	U	2	U	2	U	2	U
Acenaphthylene	208-96-8	---	---	---	2	U	2	U	2	U	2	U	2	U
Acetophenone	98-86-2	---	---	---	2	U	2	U	2	U	2	U	2	U
Atrazine	1912-24-9	7.5	7.5	7.5	2	U	2	U	2	U	2	U	2	U
Anthracene	120-12-7	50	---	50	2	U	2	U	2	U	2	U	2	U
Benzaldehyde	100-52-7	---	---	---	2	U	2	U	2	U	2	UJ	2	U
Benzo(a)anthracene	56-55-3	0.002	---	0.002	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Benzo(a)pyrene	50-32-8	ND	ND	ND	2	U	2	U	2	U	2	U	2	U
Benzo(b)fluoranthene	205-99-2	0.002	---	0.002	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Benzo(g,h,i)perylene	191-24-2	---	---	---	2	U	2	U	2	U	2	U	2	U
Benzo(k)fluoranthene	207-08-9	0.002	---	0.002	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Bis(2-chloroethoxy)methane	111-91-1	5	5	5	2	U	2	U	2	U	2	UJ	2	U
bis(2-Chloroethyl)ether	111-44-4	1	---	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bis(2-chloroisopropyl)ether	39638-32-9	---	---	---	2	U	2	U	2	U	2	U	2	U
bis(2-Ethylhexyl)phthalate	117-81-7	5	5	5	2	U	2	U	2	U	2	U	2	U
4-Bromophenyl phenyl ether	101-55-3	---	---	---	2	U	2	U	2	U	2	U	2	U
Butyl benzyl phthalate	85-68-7	50	---	50	2	U	2	U	2	U	2	U	2	U
Caprolactam	105-60-2	---	---	---	2	U	2	U	2	U	2	U	2	U
Carbazole	86-74-8	---	---	---	2	U	2	U	2	U	2	U	2	U
4-Chlorophenyl phenyl ether	7005-72-3	---	---	---	2	U	2	U	2	U	2	U	2	U
Chrysene	218-01-9	0.002	---	0.002	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Dibenzo(a,h)anthracene	53-70-3	---	---	---	2	U	2	U	2	U	2	U	2	U
Dibenzofuran	132-64-9	---	---	---	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Diethyl phthalate	84-66-2	50	---	50	2	U	2	U	2	U	2	U	2	U
Dimethyl phthalate	131-11-3	50	---	50	2	U	2	U	2	U	2	U	2	U
Di-n-butyl phthalate	84-74-2	50	50	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Di-n-octyl phthalate	117-84-0	50	---	50	2	U	2	U	2	U	2	U	2	U
Fluoranthene	206-44-0	50	---	50	2	U	2	U	2	U	2	U	2	U
Fluorene	86-73-7	50	---	50	2	U	2	U	2	U	2	U	2	U
Hexachlorobenzene	118-74-1	0.04	0.04	0.04	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Hexachlorobutadiene	87-68-3	0.5	0.5	0.5	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*UJ*	*2*	*U*
Hexachlorocyclopentadiene	77-47-4	5	5	5	*10*	*U*	*10*	*U*	2	U	*10*	*UJ*	*10*	*U*
Hexachloroethane	67-72-1	5	5	5	2	U	2	U	2	U	2	U	2	U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	---	0.002	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Isophorone	78-59-1	50	---	50	2	U	2	U	2	U	2	UJ	2	U
Naphthalene	91-20-3	10	---	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Nitrobenzene	98-95-3	0.4	0.4	0.4	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*UJ*	*2*	*U*
N-nitroso-di-n-propylamine	621-64-7	---	---	---	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Nitrosodiphenylamine	86-30-6	50	---	50	2	U	2	U	2	U	2	U	2	U
o-Cresol(s) (2-Methylphenol)	95-48-7	---	---	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Pentachlorophenol	87-86-5	1	1	1	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Phenanthrene	85-01-8	50	---	50	2	U	2	U	2	U	2	U	2	U
Phenol (total)	108-95-2	1	1	1	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Pyrene	129-00-0	50	---	50	2	U	2	U	2	U	2	U	2	U

TABLE 2
SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
1921 ATLANTIC AVENUE
BROOKLYN, NEW YORK

Sample ID: Laboratory Sample Number: Sampling Date: Units:	CAS Number	TOGS 1.1.1 ug/L	Part 703 ug/L	Ground Water Quality Standards[1] ug/L	MW001 AD01573-001/-008 12/6/2017 ug/L	Q	MW002 AD01573-002/-009 12/6/2017 ug/L	Q	DUP (MW002) AD01573-005/-012 12/6/2017 ug/L	Q	MW003 AD01714-001/-002 12/13/2017 ug/L	Q	MW004 AD01714-003/-004 12/13/2017 ug/L	Q
Pesticides														
4,4'-DDE	72-55-9	0.2	0.2	0.2	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
4,4'-DDT	50-29-3	0.2	0.2	0.2	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
4,4'-DDD	72-54-8	0.3	0.3	0.3	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Aldrin	309-00-2	ND	ND	ND	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Alpha-BHC	319-84-6	0.01	0.01	0.01	*0.01*	*U*	*0.01*	*U*	*0.01*	*U*	*0.011*	*U*	*0.011*	*U*
alpha-Chlordane	5103-71-9	---	---	---	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Beta-BHC	319-85-7	0.04	0.04	0.04	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Chlordane	57-74-9	0.05	0.05	0.05	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Delta-BHC	319-86-8	0.04	0.04	0.04	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Dieldrin	60-57-1	0.004	0.004	0.004	*0.01*	*U*	*0.01*	*U*	*0.01*	*U*	*0.011*	*U*	*0.011*	*U*
Endosulfan I	959-98-8	---	---	---	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Endosulfan II	33213-65-9	---	---	---	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Endosulfan Sulfate	1031-07-8	---	---	---	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Endrin	72-20-8	ND	ND	ND	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Endrin aldehyde	7421-93-4	5	5	5	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Endrin ketone	53494-70-5	5	5	5	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
gamma-BHC (Lindane)	58-89-9	0.05	0.05	0.05	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
gamma-Chlordane	5566-34-7	---	---	---	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Heptachlor	76-44-8	0.04	0.04	0.04	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Heptachlor epoxide	1024-57-3	0.03	0.03	0.03	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Methoxychlor	72-43-5	35	35	35	0.01	U	0.01	U	0.01	U	0.011	U	0.011	U
Toxaphene	8001-35-2	0.06	0.06	0.06	*0.25*	*U*	*0.25*	*U*	*0.25*	*U*	*0.26*	*U*	*0.26*	*U*
Polychlorinated biphenyls (PCBs)														
Pcb-1016 (Aroclor 1016)	12674-11-2	0.09	0.09	0.09	*0.25*	*U*	*0.25*	*U*	*0.25*	*U*	*0.26*	*U*	*0.26*	*U*
Pcb-1221 (Aroclor 1221)	11104-28-2	0.09	0.09	0.09	*0.25*	*U*	*0.25*	*U*	*0.25*	*U*	*0.26*	*U*	*0.26*	*U*
Pcb-1232 (Aroclor 1232)	11141-16-5	0.09	0.09	0.09	*0.25*	*U*	*0.25*	*U*	*0.25*	*U*	*0.26*	*U*	*0.26*	*U*
Pcb-1242 (Aroclor 1242)	53469-21-9	0.09	0.09	0.09	*0.25*	*U*	*0.25*	*U*	*0.25*	*U*	*0.26*	*U*	*0.26*	*U*
Pcb-1248 (Aroclor 1248)	12672-29-6	0.09	0.09	0.09	*0.25*	*U*	*0.25*	*U*	*0.25*	*U*	*0.26*	*U*	*0.26*	*U*
Pcb-1254 (Aroclor 1254)	11097-69-1	0.09	0.09	0.09	*0.25*	*U*	*0.25*	*U*	*0.25*	*U*	*0.26*	*U*	*0.26*	*U*
Pcb-1260 (Aroclor 1260)	11096-82-5	0.09	0.09	0.09	*0.25*	*U*	*0.25*	*U*	*0.25*	*U*	*0.26*	*U*	*0.26*	*U*
Pcb-1262 (Aroclor 1262)	37324-23-5	0.09	0.09	0.09	*0.25*	*U*	*0.25*	*U*	*0.25*	*U*	*0.26*	*U*	*0.26*	*U*
Pcb-1268 (Aroclor 1268)	11100-14-4	0.09	0.09	0.09	*0.25*	*U*	*0.25*	*U*	*0.25*	*U*	*0.26*	*U*	*0.26*	*U*
Total PCBs	1336-36-3	0.09	0.09	0.09	*0.25*	*U*	*0.25*	*U*	*0.25*	*U*	*0.26*	*U*	*0.26*	*U*
Herbicides														
2,4,5-T	93-76-5	35	35	35	0.56	U	0.5	U	0.5	U	0.5	U	0.5	U
2,4-D	94-75-7	50	50	50	0.56	U	0.5	U	0.5	U	0.5	U	0.5	U
2,4,5,-TP (Silvex)	93-72-1	0.26	0.26	0.26	*0.56*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Dicamba	1918-00-9				0.56	U	0.5	U	0.5	U	0.5	U	0.5	U
Metals														
Aluminum	7429-90-5	---	---	---	200	U	220		200	U	230		200	U
Antimony	7440-36-0	3	3	3	*3*	*U*	*3*	*U*	*3*	*U*	*3*	*U*	*3*	*U*
Arsenic	7440-38-2	25	25	25	2	U	2	U	2	U	2	U	2	U
Barium	7440-39-3	1,000	1,000	1,000	78		75		78		50	U	92	
Beryllium	7440-41-7	3	---	3	1	U	1	U	1	U	1	U	1	U
Cadmium	7440-43-9	5	5	5	2	U	2	U	2	U	2	U	2	U
Calcium	7440-70-2	---	---	---	100,000		110,000		120,000		85,000		170,000	
Chromium	7440-47-3	50	50	50	*50*	*U*	*50*	*U*	*50*	*U*	*50*	*U*	*50*	*U*
Chromium, Hexavalent	18540-29-9	50	50	50	NA		NA		NA		25	U	25	U
Chromium, Trivalent	16065-83-1	---	---	---	50	U	50	U	50	U	50	U	50	U
Cobalt	7440-48-4	---	---	---	2	U	2	U	2	U	2	U	2	U
Copper	7440-50-8	200	200	200	50	U	50	U	50	U	50	U	50	U
Cyanide	57-12-5	200	200	200	20	U	20	U	20	U	21		20	U
Iron	7439-89-6	300	300	300	*300*	*U*	**310**		*300*	*U*	*300*	*U*	*300*	*U*
Iron and Manganese	7493-89-6/7439-96-5	500	500	500	110		**880**		**600**		130		300	U
Lead	7439-92-1	25	25	25	3	U	3	U	3	U	3	U	3	U
Magnesium	7439-95-4	35,000	---	35,000	**38,000**		**49,000**		**51,000**		**40,000**		**77,000**	
Manganese	7439-96-5	300	300	300	110		**570**		**600**		130		40	U
Mercury (elemental)	7439-97-6	0.7	0.7	0.7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Nickel	7440-02-0	100	100	100	50	U	50	U	50	U	50	U	50	U
Potassium	7440-09-7	---	---	---	5,000	U	5,200		5,600		5,000	U	5,000	U
Selenium	7782-49-2	10	10	10	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Silver	7440-22-4	50	50	50	20	U	20	U	20	U	20	U	20	U
Sodium	7440-23-5	20,000	20,000	20,000	**170,000**		**110,000**		**120,000**		**180,000**		**170,000**	
Thallium	7440-28-0	0.5	---	0.5	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Vanadium	7440-62-2	---	---	---	50	U	50	U	50	U	50	U	50	U
Zinc	7440-66-6	2,000	---	2,000	50	U	50	U	50	U	50	U	50	U
Dissolved Metals														
Aluminum	7429-90-5	---	---	---	200	U	200	U	200	U	200	U	200	U
Antimony	7440-36-0	3	3	3	*3*	*U*	*3*	*U*	*3*	*U*	*3*	*U*	*3*	*U*
Arsenic	7440-38-2	25	25	25	2	U	2	U	2	U	2	U	2	U
Barium	7440-39-3	1,000	1,000	1,000	72		70		70		50	U	95	
Beryllium	7440-41-7	3	---	3	1	U	1	U	1	U	1	U	1	U
Cadmium	7440-43-9	5	5	5	2	U	2	U	2	U	2	U	2	U
Calcium	7440-70-2	---	---	---	96,000		110,000		110,000		87,000		180,000	
Chromium	7440-47-3	50	50	50	*50*	*U*	*50*	*U*	*50*	*U*	*50*	*U*	*50*	*U*
Cobalt	7440-48-4	---	---	---	2	U	2	U	2	U	2	U	2	U
Copper	7440-50-8	200	200	200	50	U	50	U	50	U	50	U	50	U
Iron	7439-89-6	300	300	300	*300*	*U*	*300*	*U*	*300*	*U*	*300*	*U*	*300*	*U*
Iron and Manganese	7493-89-6/7439-96-5	500	500	500	92		**540**		**540**		130		300	U
Lead	7439-92-1	25	25	25	3	U	3	U	3	U	3	U	3	U
Magnesium	7439-95-4	35,000	---	35,000	**36,000**		**48,000**		**48,000**		**40,000**		**79,000**	
Manganese	7439-96-5	300	300	300	92		**540**		**540**		130		40	U
Mercury (elemental)	7439-97-6	0.7	0.7	0.7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Nickel	7440-02-0	100	100	100	50	U	50	U	50	U	50	U	50	U
Potassium	7440-09-7	---	---	---	5,000	U	5,200		5,200		5,000	U	5,000	U
Selenium	7782-49-2	10	10	10	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Silver	7440-22-4	50	50	50	20	U	20	U	20	U	20	U	20	U
Sodium	7440-23-5	20,000	20,000	20,000	**170,000**		**110,000**		**120,000**		**180,000**		**170,000**	
Thallium	7440-28-0	0.5	---	0.5	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*
Vanadium	7440-62-2	---	---	---	50	U	50	U	50	U	50	U	50	U
Zinc	7440-66-6	2,000	---	2,000	50	U	50	U	50	U	50	U	50	U

NOTES:
1. DEC establishes water quality standards and other criteria for many specific substances and are found in NYS regulation 6 NYCRR Part 703.5 (current through February 15, 2016). In the absence of established water quality standards, numeric guidance values are derived and compiled in Division of Water guidance (TOGS 1.1.1) (updated June 2004). Ambient standards and guidance values are supported by technical documents called "Fact Sheets" that are also available upon request from the NYSDEC.

http://www.dec.ny.gov/chemical/23853.html
http://www.dec.ny.gov/regulations/2652.html
ug/L: micrograms per liter
Exceedances of regulatory criteria are highlighted and **bold**.
Italicized results indicate the Reporting Limit (RL) is greater than or equal to the most stringent criteria.
--- : Indicates that no regulatory limit has been established for this analyte
NA: Compound not analyzed

Q is the Qualifier Column with definitions as follows:
D: Result is from an analysis that required a dilution
J: Analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U: Analyte not detected at or above the level indicated

TABLE 3
SUMMARY OF HISTORICAL SOIL VAPOR ANALYTICAL RESULTS
1921 Atlantic Avenue
Brooklyn, New York

Sample ID		SV001		SV002		SV003		SV004		SV005		SV006		SV007		SV008	
Lab Sample ID		JC56957-1		JC56957-2		JC56957-3		JC56957-4		JC56957-5		JC56957-6		JC61196-1		JC61196-2	
Sample Date	**CAS Number**	12/6/2017		12/6/2017		12/6/2017		12/6/2017		12/6/2017		12/6/2017		2/19/2018		2/19/2018	
Sample Depth (ft bgs)		5		5		5		5		5		5		5		5	
Units		ug/m3	Q	ug/m3	Q	ug/m3	Q	ug/m3	Q	ug/m3	Q	ug/m3	Q	ug/m3	Q	ug/m3	Q
Volatile Organic Compounds (VOCs)																	
1,1-Dichloroethane	75-34-3	0.13	U	0.13	U	0.13	U	0.45	U	0.13	U	0.53	U	0.13	U	0.13	U
1,1-Dichloroethylene	75-35-4	0.13	U	0.13	U	0.13	U	0.44	U	0.13	U	0.52	U	0.13	U	0.13	U
1,1,1-Trichloroethane	71-55-6	0.09	U	0.09	U	0.09	U	0.3	U	0.09	U	0.37	U	0.093	U	0.093	U
1,1,2,2-Tetrachloroethane	79-34-5	0.25	U	0.25	U	0.25	U	0.82	U	0.25	U	0.96	U	0.25	U	0.25	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	0.18	U	0.18	U	0.18	U	0.59	U	0.18	U	0.74	U	0.18	U	0.18	U
1,1,2-Trichloroethane	79-00-5	0.12	U	0.12	U	0.12	U	0.39	U	0.12	U	0.48	U	0.12	U	0.12	U
1,2,4-Trichlorobenzene	120-82-1	0.28	U	0.28	U	0.28	U	0.89	U	0.28	U	1.11	U	0.28	U	0.28	U
1,2,4-Trimethylbenzene	95-63-6	0.25	U	0.25	U	0.25	U	0.79	U	0.25	U	155		0.25	U	19	
1,2-Dibromoethane	106-93-4	0.17	U	0.17	U	0.17	U	0.55	U	0.17	U	0.68	U	0.17	U	0.17	U
1,2-Dichlorobenzene	95-50-1	0.17	U	0.17	U	0.17	U	0.54	U	0.17	U	0.66	U	0.17	U	0.17	U
1,2-Dichloroethane	107-06-2	0.11	U	0.11	U	0.11	U	0.34	U	0.11	U	0.45	U	0.11	U	0.11	U
1,2-Dichloropropane	78-87-5	0.15	U	0.15	U	0.15	U	0.46	U	0.15	U	0.6	U	0.15	U	0.15	U
1,2-Dichlorotetrafluoroethane	76-14-2	0.17	U	0.17	U	0.17	U	0.55	U	0.17	U	0.68	U	0.17	U	0.17	U
1,3,5-Trimethylbenzene	108-67-8	0.15	U	0.15	U	0.15	U	0.48	U	0.15	U	47		0.15	U	4.8	
1,3-Butadiene	106-99-0	0.06	U	0.06	U	0.06	U	0.2	U	0.06	U	0.24	U	0.062	U	0.062	U
1,3-Dichlorobenzene	541-73-1	0.17	U	0.17	U	0.17	U	0.56	U	0.17	U	0.72	U	0.17	U	0.17	U
1,4-Dichlorobenzene	106-46-7	0.17	U	0.17	U	0.17	U	0.57	U	0.17	U	0.72	U	0.17	U	0.17	U
1,4-Dioxane	123-91-1	0.17	U	0.17	U	0.17	U	0.54	U	0.17	U	0.68	U	0.17	U	0.17	U
2,2,4-Trimethylpentane	540-84-1	0.12	U	2.8		1.1		20		0.12	U	603		0.12	U	27	
2-Butanone	78-93-3	0.13	U	5		37.5		25		1.9		29		0.38	J	0.74	
2-Chlorotoluene	95-49-8	0.19	U	0.19	U	0.19	U	0.62	U	0.19	U	0.72	U	0.19	U	0.19	U
2-Hexanone	591-78-6	0.17	U	0.17	U	0.17	U	0.53	U	0.17	U	5.3		0.17	U	0.17	U
4-Methyl-2-pentanone	108-10-1	0.23	U	0.23	U	0.23	U	2.2	J	0.23	U	0.94	U	0.23	U	0.82	
Acetone	67-64-1	71.5		119		1,820		2,170		138		915		6.4		0.15	U
Allyl Chloride (3-Chloropropene)	107-05-1	0.12	U	0.12	U	0.12	U	0.38	U	0.12	U	0.47	U	0.12	U	0.12	U
Benzene	71-43-2	0.08	U	0.08	U	0.77		2.5		0.08	U	76		0.45	J	23	
Benzyl chloride	100-44-7	0.11	U	0.11	U	0.11	U	0.35	U	0.11	U	0.44	U	0.11	U	0.11	U
Bromodichloromethane	75-27-4	0.19	U	0.19	U	0.19	U	0.62	U	0.19	U	0.8	U	0.19	U	0.19	U
Bromoethene	593-60-2	0.07	U	0.07	U	0.07	U	0.22	U	0.07	U	0.27	U	0.07	U	0.07	U
Bromoform	75-25-2	0.19	U	0.19	U	0.19	U	0.59	U	0.19	U	0.73	U	0.19	U	0.19	U
Bromomethane	74-83-9	0.13	U	0.13	U	0.13	U	0.39	U	0.13	U	0.5	U	0.13	U	0.13	UJ
Carbon disulfide	75-15-0	0.1	U	6.9		3.4		1.9	J	0.69		5.6		0.1	U	0.1	U
Carbon tetrachloride	56-23-5	0.13	U	0.13	U	0.13	U	0.4	U	0.13	U	0.5	U	0.44	J	0.13	U
Chlorobenzene	108-90-7	0.08	U	0.08	U	0.08	U	0.25	U	0.08	U	0.32	U	0.078	U	0.078	U
Chloroethane	75-00-3	0.09	U	0.09	U	0.09	U	0.32	U	0.09	U	0.37	U	0.095	U	0.095	U
Chloroform	67-66-3	5.9		1.5		11		0.49	U	0.63	J	0.59	U	0.15	U	0.15	U
Chloromethane	74-87-3	0.13	U	0.5		0.95		3.1		0.13	U	0.54	U	1.1		1.5	
cis-1,2-Dichloroethylene	156-59-2	0.13	U	0.13	U	0.13	U	0.44	U	0.13	U	0.52	U	0.13	U	0.13	U
cis-1,3-Dichloropropylene	10061-01-5	0.1	U	0.1	U	0.1	U	0.34	U	0.1	U	0.42	U	0.1	U	0.1	U
Cyclohexane	110-82-7	0.12	U	0.12	U	0.12	U	0.38	U	0.12	U	74.3		0.12	U	11	
Dibromochloromethane	124-48-1	0.21	U	0.21	U	0.21	U	0.69	U	0.21	U	0.85	U	0.21	U	0.21	U
Dichlorodifluoromethane	75-71-8	0.12	U	2.3		2.2		0.41	U	2.1		0.49	U	2.2		2.8	
Ethyl acetate	141-78-6	0.61	J	1.8		1.2		2.1	J	0.86		0.94	U	0.4	J	20	
Ethyl Alcohol	64-17-5	3		14		125		217		14		47.5		5.5	J	172	J
Ethyl Benzene	100-41-4	0.1	U	0.48	J	0.1	U	1.4	J	0.83	J	290		0.1	U	22	
Hexachlorobutadiene	87-68-3	0.26	U	0.26	U	0.26	U	0.83	U	0.26	U	1.02	U	0.26	U	0.26	U
Isooctane	540-84-1	0.12	U	2.76		1.12		20.08		0.12	U	602.53		0.12	U	27	
Isopropanol	67-63-0	0.22	U	0.22	U	0.22	U	0.71	U	0.22	U	0.88	U	1.8		1.6	
Methyl Methacrylate	80-62-6	0.18	U	0.18	U	0.18	U	0.57	U	0.18	U	0.74	U	0.18	U	0.18	U
Methyl tert-butyl ether (MTBE)	1634-04-4	0.07	U	0.07	U	0.07	U	0.22	U	0.07	U	0.27	U	0.069	U	0.069	U
Methylene chloride	75-09-2	9		3.8		2.4		14		4.2		4.5		0.11	U	17	
n-Heptane	142-82-5	0.19	U	0.19	U	0.7	J	2.3	J	0.19	U	308		0.82		21	
n-Hexane	110-54-3	1		1.2		1.5		6.7		1.1		142		0.092	U	59.6	
o-Xylene	95-47-6	0.15	U	0.65	J	0.48	J	1.4	J	2.5		338		0.15	U	28	
p- & m- Xylenes	179601-23-1	0.29	U	1.5		1.4		3.9		4		1,060		0.29	U	101	
p-Ethyltoluene	622-96-8	0.14	U	0.14	U	0.14	U	0.44	U	0.14	U	57		0.14	U	6.9	
Propylene	115-07-1	0.1	U	14		92.8		1,010		2.2		0.4	U	0.1	U	0.1	U
Styrene	100-42-5	0.2	U	0.2	U	0.2	U	0.64	U	0.2	U	0.77	U	0.2	U	0.2	U
tert-butyl alcohol (TBA)	75-65-0	0.08	U	0.08	U	9.4		6.7		0.7		0.33	U	0.079	U	0.079	U
Tetrachloroethylene	127-18-4	1.9		0.88		8.1		1.7		4.6		7.5		0.31		0.11	U
Tetrahydrofuran	109-99-9	0.13	U	0.13	U	0.13	U	0.44	U	0.13	U	0.53	U	0.13	U	0.13	U
Toluene	108-88-3	0.36	J	2.7		2.4		7.5		0.6	J	739		1.3		126	
trans-1,2-Dichloroethylene	156-60-5	0.1	U	0.1	U	0.1	U	0.33	U	0.1	U	0.4	U	0.1	U	0.1	U
trans-1,3-Dichloropropylene	10061-02-6	0.13	U	0.13	U	0.13	U	0.43	U	0.13	U	0.54	U	0.13	U	0.13	U
Trichloroethylene	79-01-6	0.06	U	0.75		0.54		2.6		0.18	J	1.2		0.064	U	0.064	U
Trichlorofluoromethane (Freon 11)	75-69-4	7.3		1.8		1.6		1.6	J	1.6		0.34	U	1.6		1.9	
Vinyl acetate	108-05-4	0.09	U	0.09	U	0.09	U	6.3		1.6		0.39	U	0.095	U	0.095	U
Vinyl Chloride	75-01-4	0.1	U	0.1	U	0.1	U	0.31	U	0.1	U	0.38	U	0.097	U	0.097	U
Total Xylenes	1330-20-7	0.15	U	2.1		1.9		5.2		6.5		1,400		0.15	U	129	

Notes:
ug/m3: microgram per cubic meter

Q is the Qualifier Column with definitions as follows:
J: analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U: The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL

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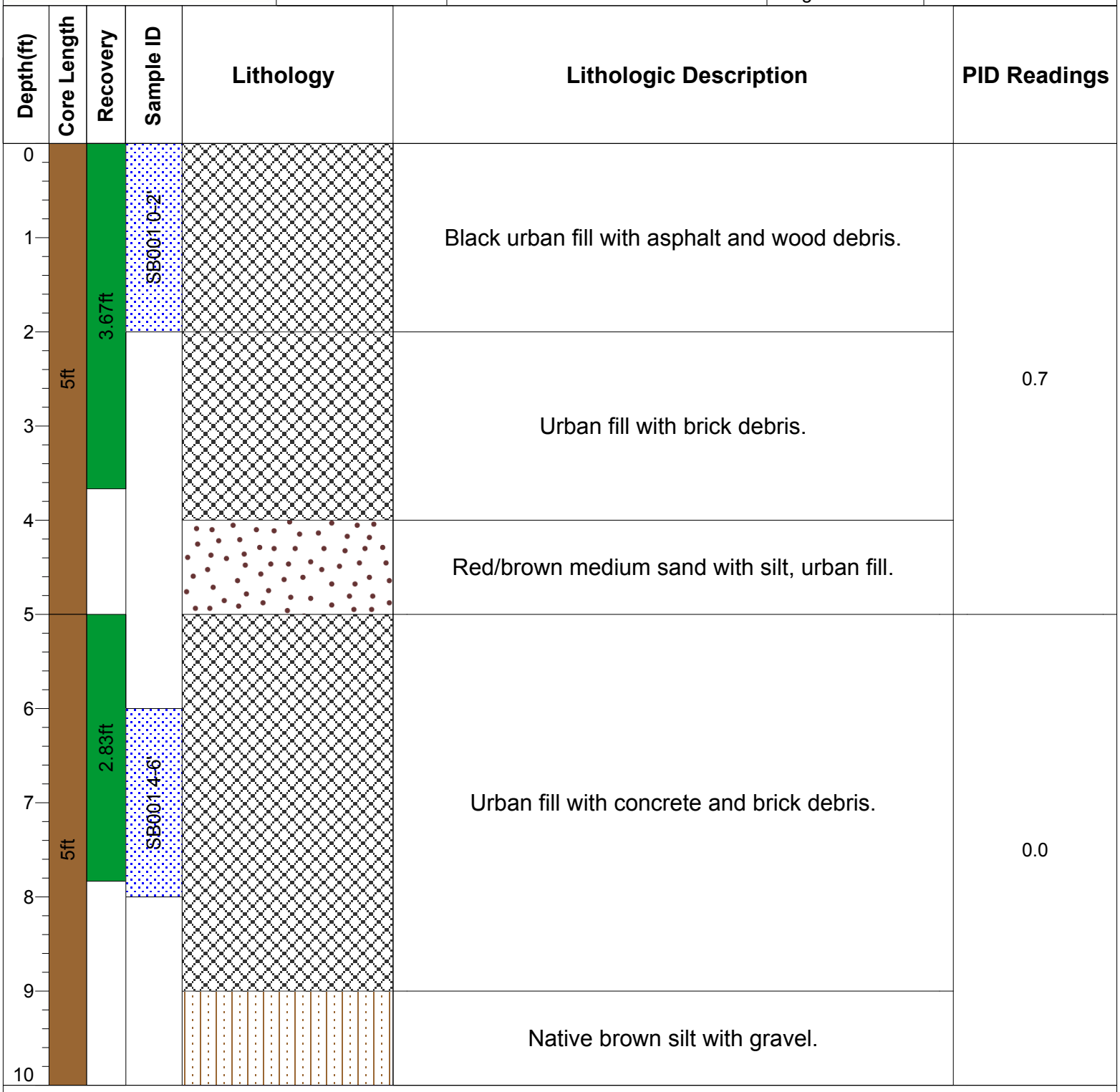
Borehole ID:	SB001	Logged By:	Daniel Johnson
Borehole Location:	19 Prescott Pl., Brooklyn, NY	Project Manager:	Richard Kampf
Project Name:	OER1703	Project Number:	OER1703
Drilling Contractor:	LAWES	Drilling Method:	Geoprobe
Driller Name:	N/A	Sampling Method:	Macrocore
Borehole Diameter:	2"	Borehole Depth:	10'
Start Time:	8:20	Completion Time:	8:40
Start Date:	11/9/2017	Completion Date:	11/9/2017
Latitude:		Longitude:	



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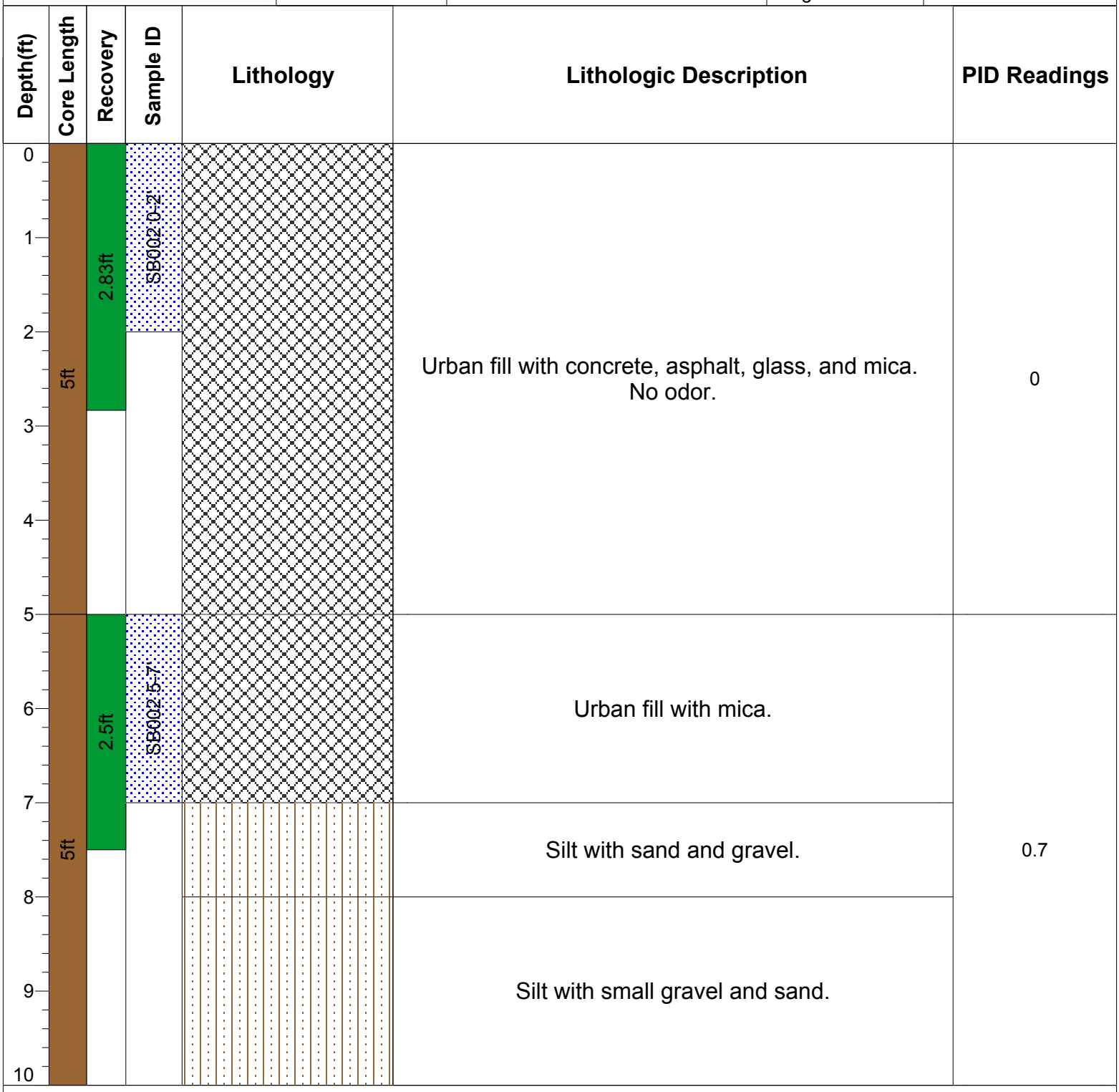
Borehole ID:	SB002	Logged By:	Daniel Johnson
Borehole Location:	19 Prescott Pl., Brooklyn, NY	Project Manager:	Richard Kampf
Project Name:	OER1703	Project Number:	OER1703
Drilling Contractor:	LAWES	Drilling Method:	Geoprobe
Driller Name:	N/A	Sampling Method:	Macrocore
Borehole Diameter:	2"	Borehole Depth:	10'
Start Time:	8:50	Completion Time:	9:10
Start Date:	11/9/2017	Completion Date:	11/9/2017
Latitude:		Longitude:	



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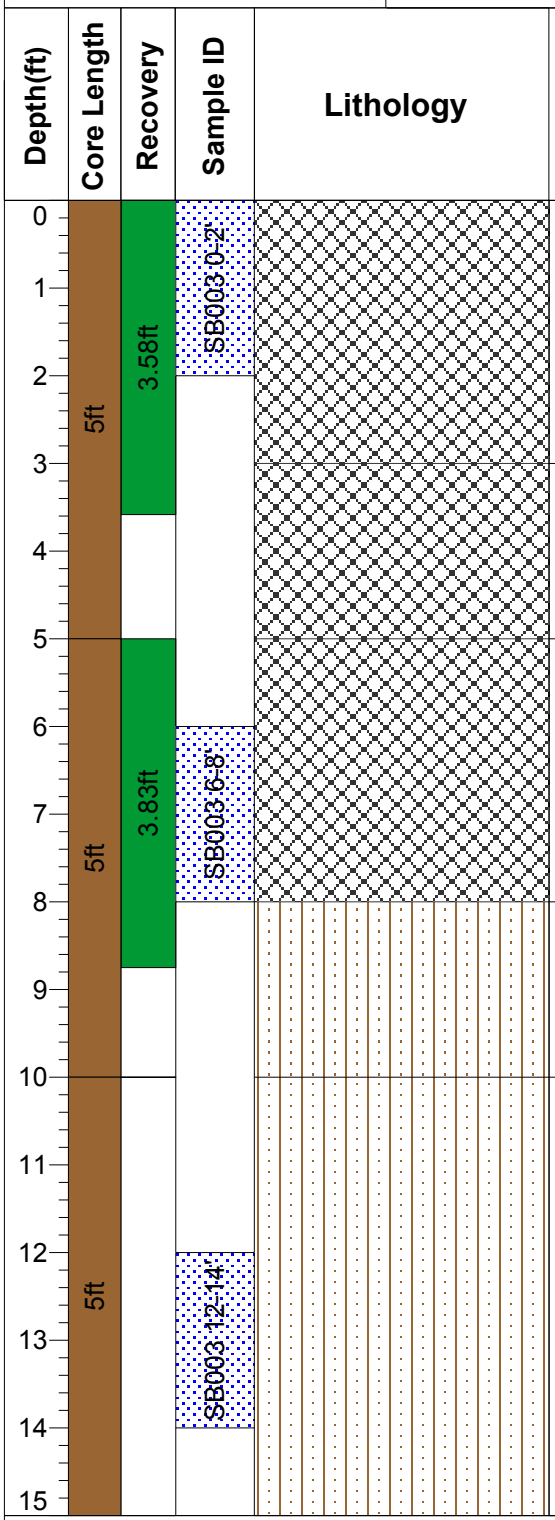
Borehole ID:	SB003	Logged By:	Daniel Johnson
Borehole Location:	19 Prescott Pl., Brooklyn, NY	Project Manager:	Richard Kampf
Project Name:	OER1703	Project Number:	OER1703
Drilling Contractor:	LAWES	Drilling Method:	Geoprobe
Driller Name:	N/A	Sampling Method:	Macrocore
Borehole Diameter:	2"	Borehole Depth:	15'
Start Time:	10:00	Completion Time:	10:25
Start Date:	11/9/2017	Completion Date:	11/9/2017
Latitude:		Longitude:	



Lithologic Description	PID Readings
Black urban fill with asphalt and top soil.	0.7
Brown urban fill with silty medium sand and small gravel. No odor.	
Brown urban fill with silty medium sand and small gravel. No odor.	0.3
Brown silt with clay / fine sand. Medium to large gravel. No odor.	
Brown silt with clay, some fine sand with medium to large gravel.	0.0

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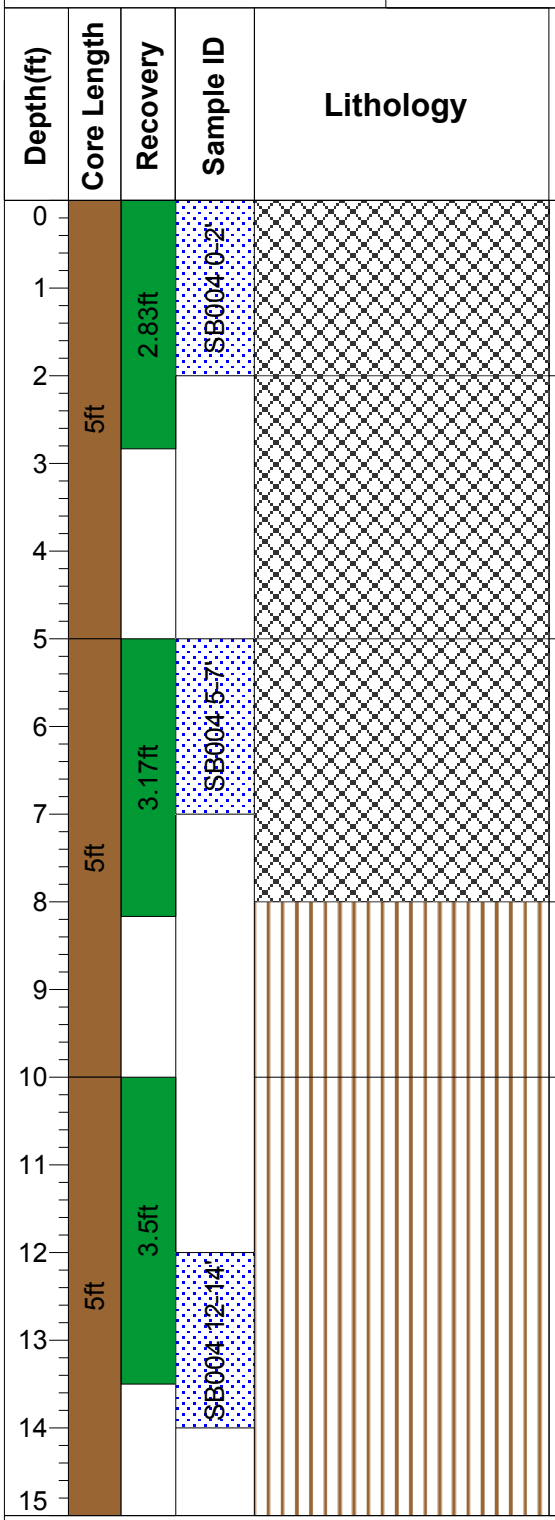
Borehole ID:	SB004	Logged By:	Daniel Johnson
Borehole Location:	19 Prescott Pl., Brooklyn, NY	Project Manager:	Richard Kampf
Project Name:	OER1703	Project Number:	OER1703
Drilling Contractor:	LAWES	Drilling Method:	Geoprobe
Driller Name:	N/A	Sampling Method:	Macrocore
Borehole Diameter:	2"	Borehole Depth:	15'
Start Time:	10:28	Completion Time:	10:45
Start Date:	11/9/2017	Completion Date:	11/9/2017
Latitude:		Longitude:	



Lithology	Lithologic Description	PID Readings
	Black urban fill with asphalt and wood debris.	0.0
	Black urban fill with silty coarse sand, brick, and gravel.	
	Red/brown urban fill with coarse/medium sand, silt, and small gravel. No odor.	1.3
	Red/brown silt with sand and clay.	
	Brown silt with sand and clay with small gravel.	0.0

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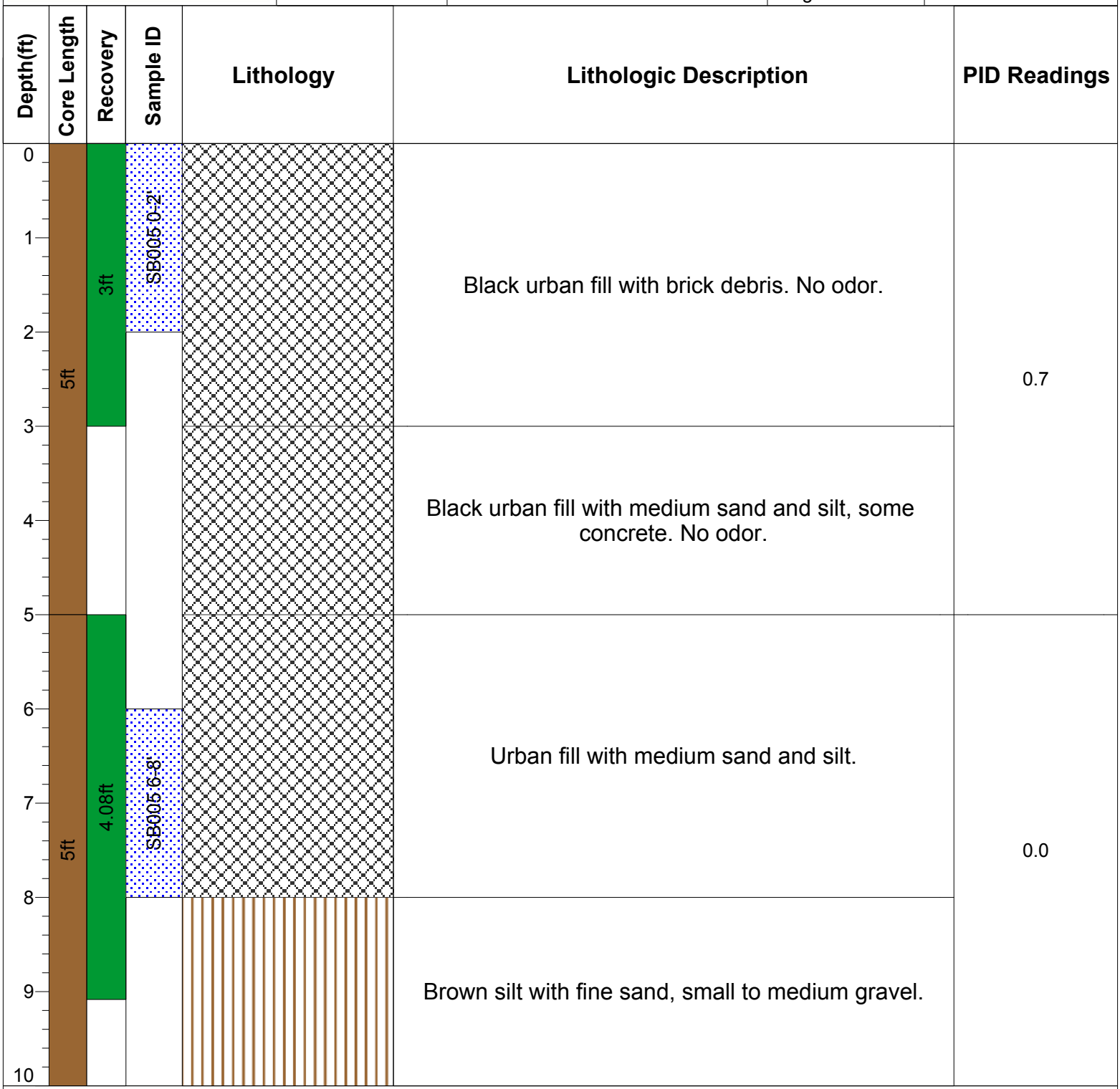
Borehole ID:	SB005	Logged By:	Daniel Johnson
Borehole Location:	19 Prescott Pl., Brooklyn, NY	Project Manager:	Richard Kampf
Project Name:	OER1703	Project Number:	OER1703
Drilling Contractor:	LAWES	Drilling Method:	Geoprobe
Driller Name:	N/A	Sampling Method:	Macrocore
Borehole Diameter:	2"	Borehole Depth:	10'
Start Time:	11:00	Completion Time:	11:20
Start Date:	11/9/2017	Completion Date:	11/9/2017
Latitude:		Longitude:	



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Borehole ID:	SB006	Logged By:	Daniel Johnson
Borehole Location:	19 Prescott Pl., Brooklyn, NY	Project Manager:	Richard Kampf
Project Name:	OER1703	Project Number:	OER1703
Drilling Contractor:	LAWES	Drilling Method:	Geoprobe
Driller Name:	N/A	Sampling Method:	Macrocore
Borehole Diameter:	2"	Borehole Depth:	10'
Start Time:	11:25	Completion Time:	11:56
Start Date:	11/9/2017	Completion Date:	11/9/2017
Latitude:		Longitude:	

Depth(ft)	Core Length	Recovery	Sample ID	Lithology	Lithologic Description	PID Readings
0–5	5ft	3.17ft	SB006 0-2'		Black urban fill with asphalt, brick, concrete.	1.8
3–5					Brown silt with sand, concrete, asphalt.	
5–7	5ft	3.58ft	SB006 5-7'		Brown silt with sand, concrete, asphalt.	0.0
7–10					Brown silt with medium sand, small to large gravel.	

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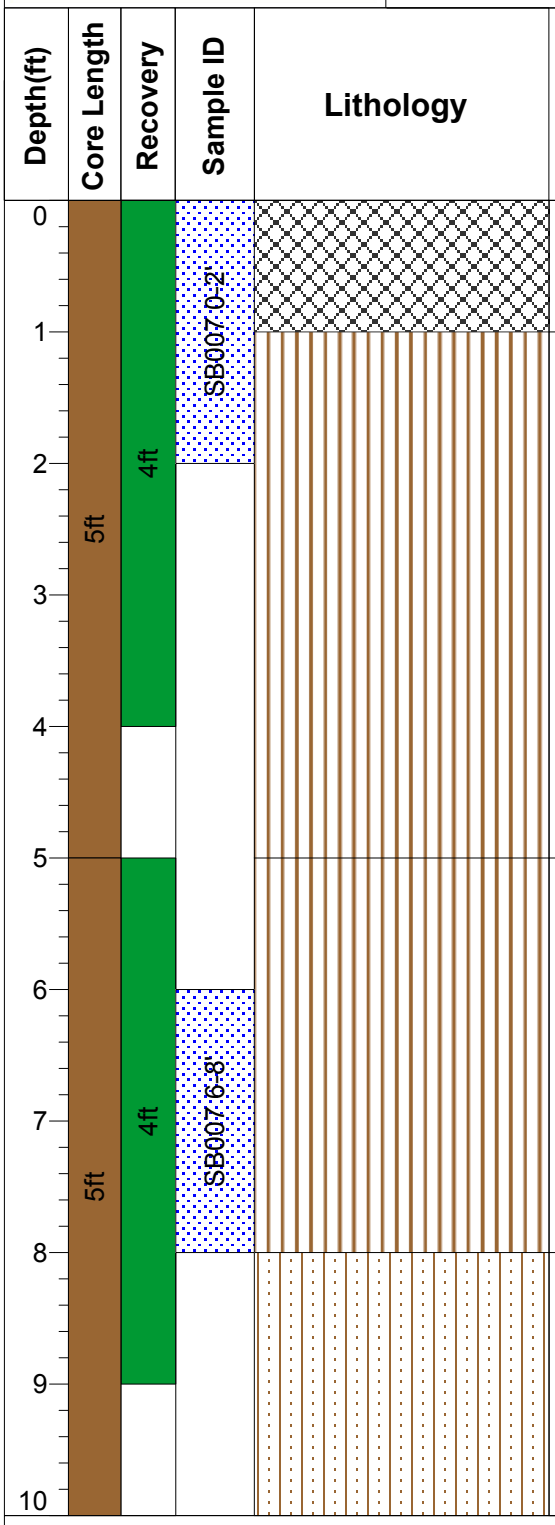
Borehole ID:	SB007	Logged By:	Michael Gaul
Borehole Location:	19 Prescott Pl., Brooklyn, NY	Project Manager:	Richard Kampf
Project Name:	OER1703	Project Number:	OER1703
Drilling Contractor:	LAWES	Drilling Method:	Geoprobe
Driller Name:	N/A	Sampling Method:	Macrocore
Borehole Diameter:	2"	Borehole Depth:	10'
Start Time:	8:20	Completion Time:	8:30
Start Date:	11/16/2017	Completion Date:	11/16/2017
Latitude:		Longitude:	



Lithologic Description	PID Readings
Brown urban fill wth wood, brick, and sandy silt.	0.0
Brown fine silty sand with gravel, brick, concrete.	
Brown fine silty sand with gravel, brick, fill.	0.0
Brown fine sand.	

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Borehole ID:	SB008	Logged By:	Michael Gaul
Borehole Location:	19 Prescott Pl., Brooklyn, NY	Project Manager:	Richard Kampf
Project Name:	OER1703	Project Number:	OER1703
Drilling Contractor:	LAWES	Drilling Method:	Geoprobe
Driller Name:	N/A	Sampling Method:	Macrocore
Borehole Diameter:	2"	Borehole Depth:	10'
Start Time:	8:40	Completion Time:	9:15
Start Date:	11/16/2017	Completion Date:	11/16/2017
Latitude:		Longitude:	

Depth(ft)	Core Length	Recovery	Sample ID	Lithology	Lithologic Description	PID Readings
0	5ft	2.5ft	SB008 0-2'		Dark brown sandy silt with wood, organics, brick.	0.0
1					Brown silty sand with brick, gravel.	
2						
3					Brown sand with gravel, brick, concrete.	
4						
5	5ft	3ft			Brown sand with gravel.	0.0
6						
7					Brown fine sand.	
8						
9						
10	5ft	3ft	SB008 12-14'		Brown sand, tighlty compacted, fine.	0.0
11						
12						
13					Gray rock / rock fragments.	
14					Brown fine sand.	
15						

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Borehole ID:	SB009	Logged By:	Michael Gaul
Borehole Location:	19 Prescott Pl., Brooklyn, NY	Project Manager:	Richard Kampf
Project Name:	OER1703	Project Number:	OER1703
Drilling Contractor:	LAWES	Drilling Method:	Geoprobe
Driller Name:	N/A	Sampling Method:	Macrocore
Borehole Diameter:	2"	Borehole Depth:	15'
Start Time:	9:20	Completion Time:	9:30
Start Date:	11/16/2017	Completion Date:	11/16/2017
Latitude:		Longitude:	

Depth(ft)	Core Length	Recovery	Sample ID	Lithology	Lithologic Description	PID Readings
0–2	5ft	3ft	SB009-0-2'		Dark brown sandy silt with wood.	0.0
2–5					Brown fine silty sand with gravel and brick.	
5–8	5ft	4ft			Brown sand with gravel.	0.0
8–10					Brown fine sand.	
10–12	5ft	4ft			Brown fine sand with mica.	0.0
12–13			SB009-12-14'		Brown fine sand with rock fragments.	
13–15					Brown fine sand.	

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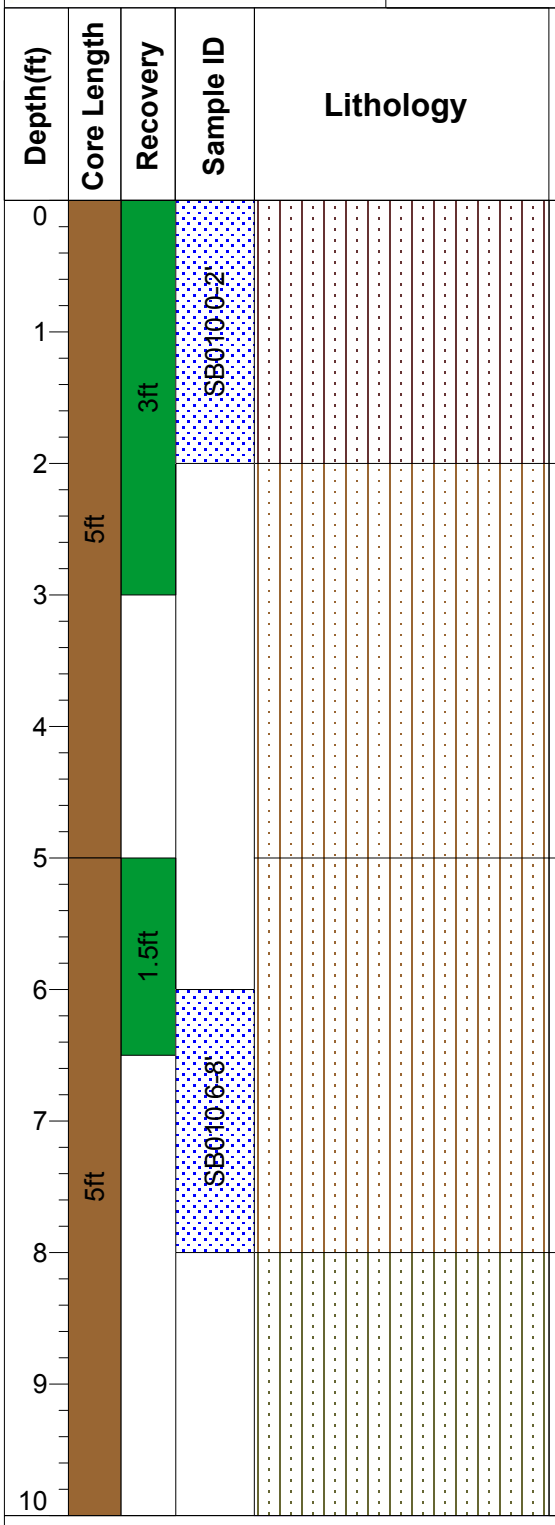
Borehole ID:	SB010	Logged By:	Michael Gaul
Borehole Location:	19 Prescott Pl., Brooklyn, NY	Project Manager:	Richard Kampf
Project Name:	OER1703	Project Number:	OER1703
Drilling Contractor:	LAWES	Drilling Method:	Geoprobe
Driller Name:	N/A	Sampling Method:	Macrocore
Borehole Diameter:	2"	Borehole Depth:	10'
Start Time:	11:06	Completion Time:	11:25
Start Date:	11/16/2017	Completion Date:	11/16/2017
Latitude:		Longitude:	



Lithologic Description	PID Readings
Dark brown sandy silt with wood and gravel.	0.0
Brown fine sand with brick and gravel.	
Brown fine sand with gravel and brick fragments.	0.0
Gray brown fine sand.	

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Borehole ID:	SB011	Logged By:	Michael Gaul
Borehole Location:	19 Prescott Pl., Brooklyn, NY	Project Manager:	Richard Kampf
Project Name:	OER1703	Project Number:	OER1703
Drilling Contractor:	LAWES	Drilling Method:	Geoprobe
Driller Name:	N/A	Sampling Method:	Macrocore
Borehole Diameter:	2"	Borehole Depth:	15'
Start Time:	11:32	Completion Time:	12:00
Start Date:	11/16/2017	Completion Date:	11/16/2017
Latitude:		Longitude:	

Depth(ft)	Core Length	Recovery	Sample ID	Lithology	Lithologic Description	PID Readings
0–5	5ft	2.5ft	SB011 0-2'		Dark brown sandy silt with brick, wood, organics.	0.0
1–3					Light brown coarse sand with gravel, brick, mica.	
3–5					Brown fine sand.	
5–10	5ft	3ft			Brown fine sand, tightly compacted with rock fragments.	0.0
10–15	5ft	3ft	SB011 12-14'		Brown fine sand.	0.0

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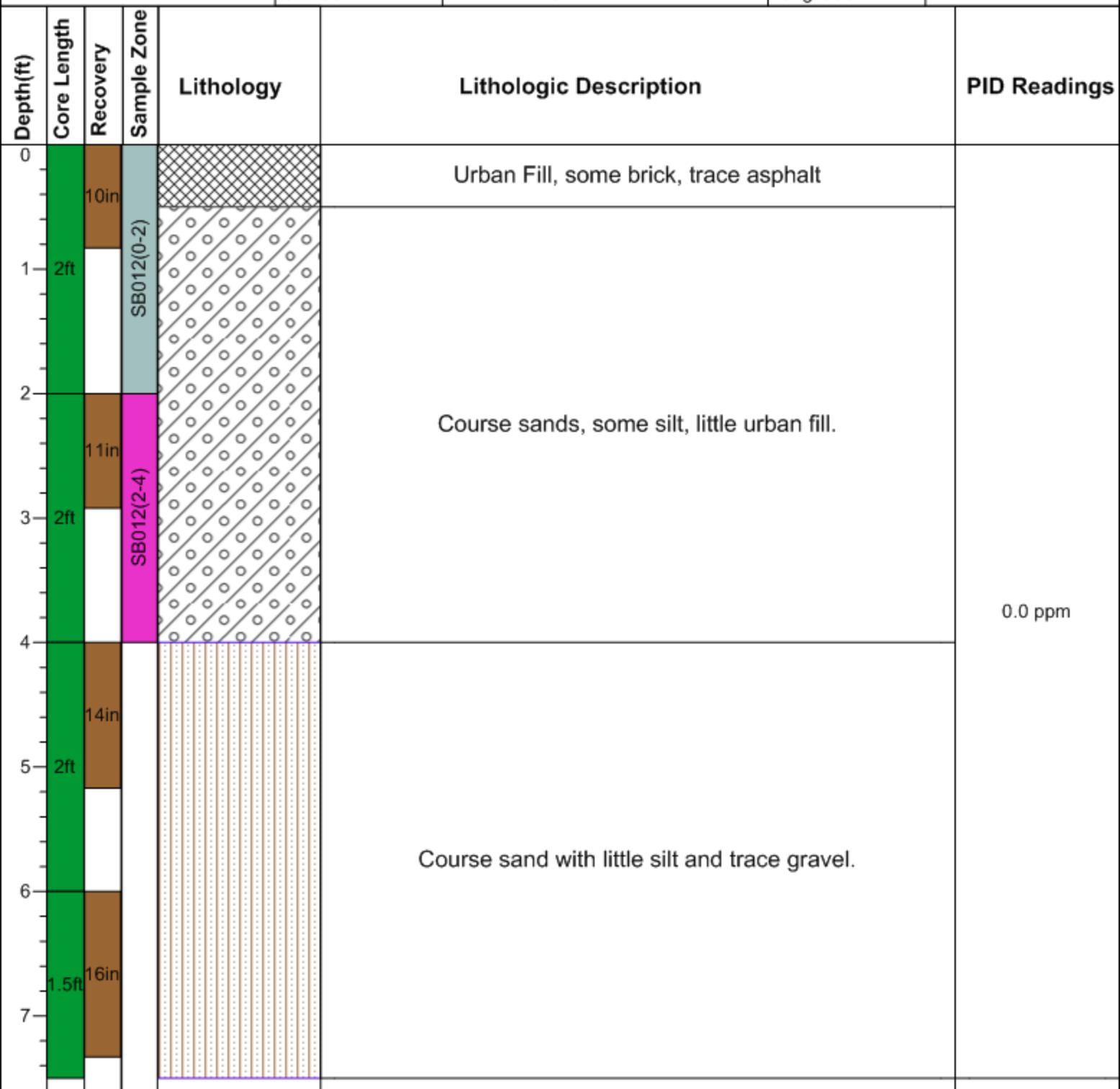
Borehole ID:	**SB012**	Logged By:	Dan Johnson
Sample Location:	21-23 Prescott Place	Project Manager:	Rich Kampf
Project Name:	DTF1801	Project Number:	DTF1801
Drilling Contractor:	LAWES	Drilling Method:	Manually Driven
Driller Name:	Ernesto	Sampling Method:	Discrete Grab
Borehole Diameter:	2"	Borehole Depth:	7.5'
Start Time:	N/A	Completion Time:	N/A
Start Date:	2/14/18	Completion Date:	2/14/18
Latitude:	N/A	Longitude:	N/A



Groundwater not encountered
2/14/18

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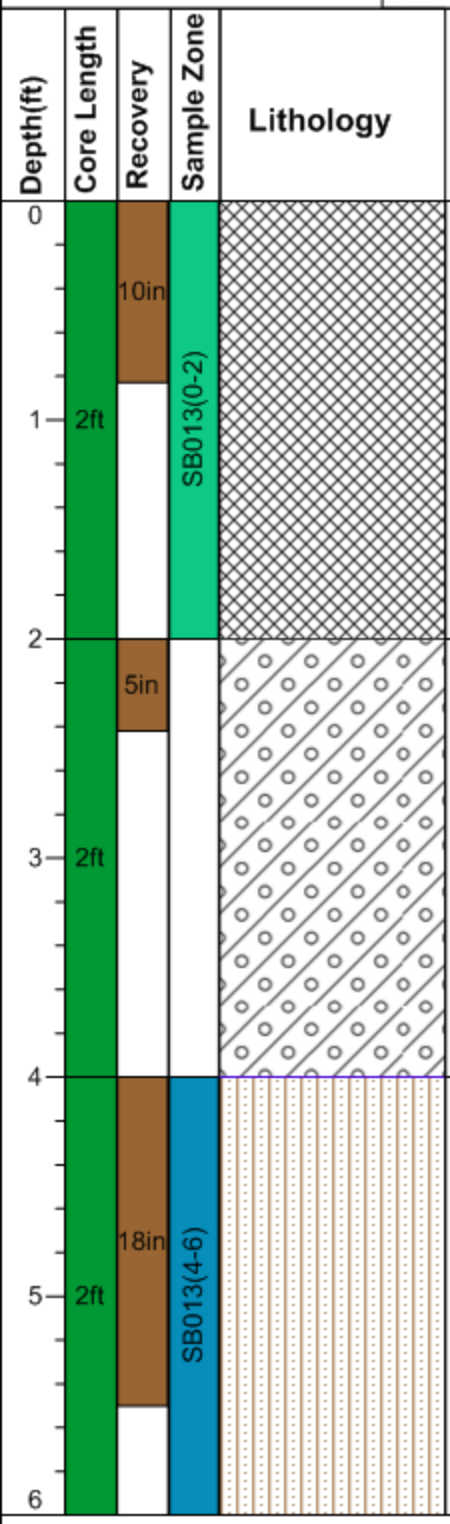
Borehole ID:	**SB013**	Logged By:	Dan Johnson
Sample Location:	21-23 Prescott Place	Project Manager:	Rich Kampf
Project Name:	DTF1801	Project Number:	DTF1801
Drilling Contractor:	LAWES	Drilling Method:	Manually Driven
Driller Name:	Ernesto	Sampling Method:	Discrete Grab
Borehole Diameter:	2"	Borehole Depth:	6'
Start Time:	N/A	Completion Time:	N/A
Start Date:	2/14/18	Completion Date:	2/14/18
Latitude:	N/A	Longitude:	N/A



Lithologic Description	PID Readings
Urban Fill, little sand and black ash.	0.0 ppm
Coarse sand, some silt, little urban fill, trace rock fragments.	
Coarse sand.	

Groundwater not encountered
2/14/18

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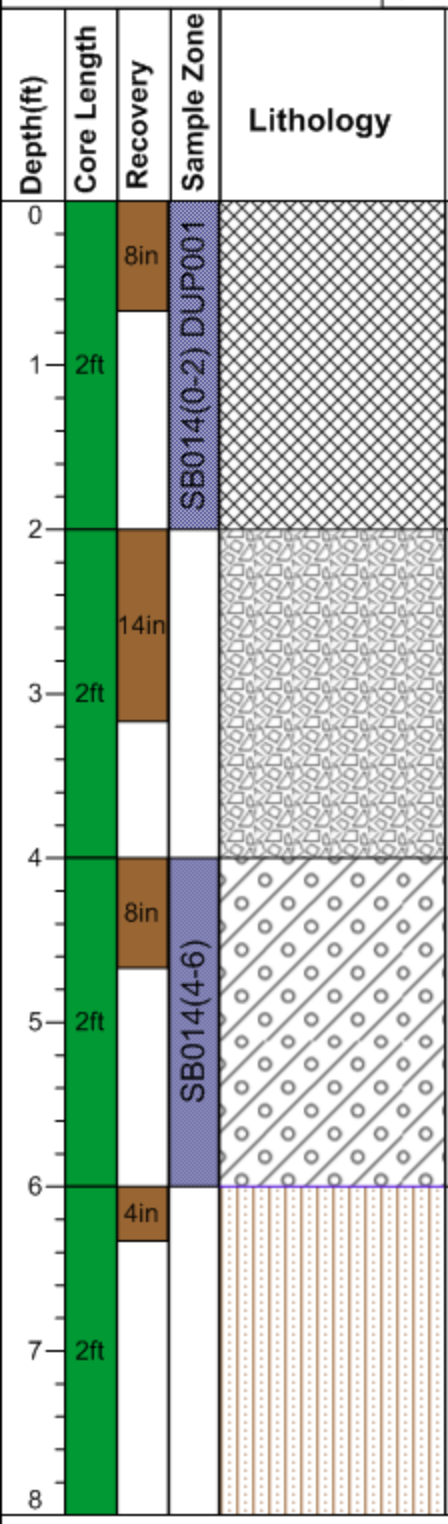
Borehole ID:	**SB014**	Logged By:	Dan Johnson
Sample Location:	21-23 Prescott Place	Project Manager:	Rich Kampf
Project Name:	DTF1801	Project Number:	DTF1801
Drilling Contractor:	LAWES	Drilling Method:	Manually Driven
Driller Name:	Ernesto	Sampling Method:	Discrete Grab
Borehole Diameter:	2"	Borehole Depth:	8'
Start Time:	N/A	Completion Time:	N/A
Start Date:	2/14/18	Completion Date:	2/14/18
Latitude:	N/A	Longitude:	N/A



Lithologic Description	PID Readings
Urban Fill with brick, some coarse sand, trace silt.	0.0 ppm
Urban Fill, loamy, little brick and sand.	
Coarse sand, some gravel, little urban fill.	
Coarse sand some gravel, little silt.	

Groundwater not encountered
2/14/18

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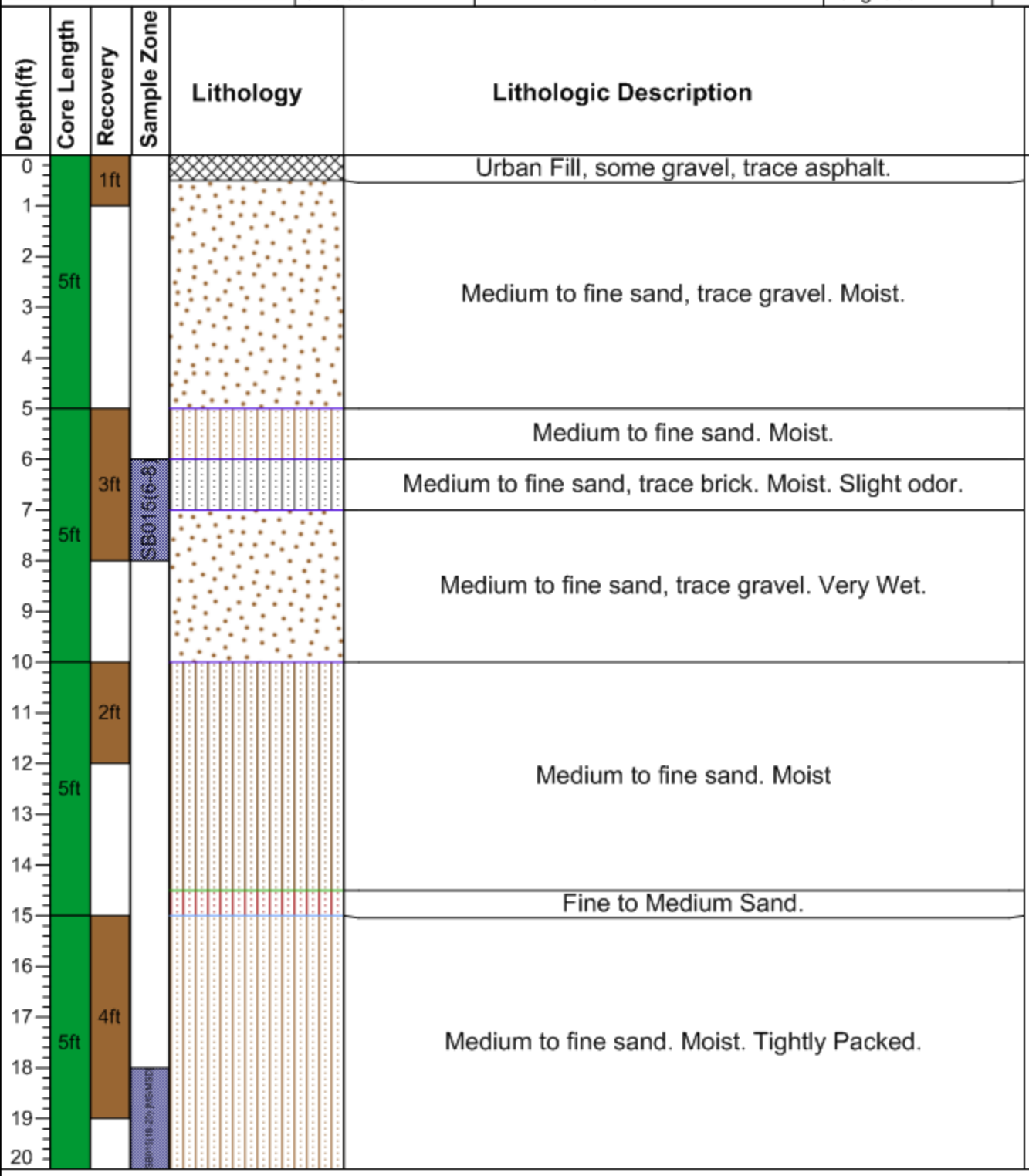
Borehole ID:	**SB015**	Logged By:	Nick Iannucci
Sample Location:	21-23 Prescott Place	Project Manager:	Rich Kampf
Project Name:	DTF1801	Project Number:	DTF1801
Drilling Contractor:	LAWES	Drilling Method:	Direct Push
Driller Name:	Ernesto	Sampling Method:	Discrete Grab
Borehole Diameter:	2"	Borehole Depth:	20'
Start Time:	N/A	Completion Time:	N/A
Start Date:	2/19/18	Completion Date:	2/19/18
Latitude:	N/A	Longitude:	N/A



Groundwater not encountered
2/19/18

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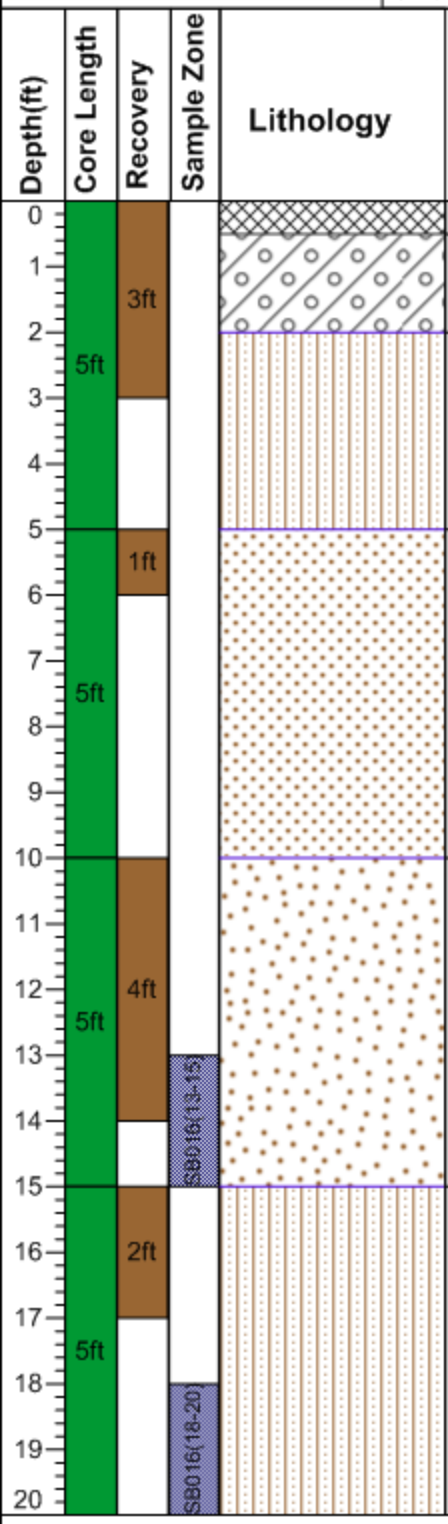
Borehole ID:	**SB016**	Logged By:	Nick Iannucci
Sample Location:	21-23 Prescott Place	Project Manager:	Rich Kampf
Project Name:	DTF1801	Project Number:	DTF1801
Drilling Contractor:	LAWES	Drilling Method:	Direct Push
Driller Name:	Ernesto	Sampling Method:	Discrete Grab
Borehole Diameter:	2"	Borehole Depth:	20'
Start Time:	N/A	Completion Time:	N/A
Start Date:	2/19/18	Completion Date:	2/19/18
Latitude:	N/A	Longitude:	N/A



Lithologic Description	PID Readings
Urban Fill, some brick, trace gravel.	0.0 ppm
Medium to coarse sand. Dry.	
Medium to fine sand. Moist.	
Medium to fine sand. Loosely packed. Very wet.	
Medium to fine sand, some brick. Moist. Tightly packed.	
Medium to fine sand, trace gravel. Moist.	

Groundwater not encountered
2/19/18

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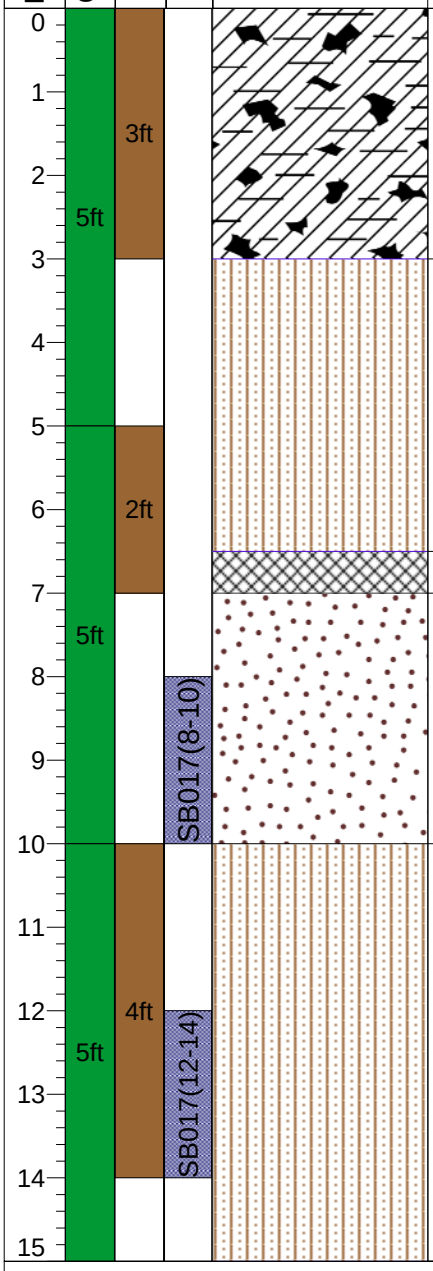
Borehole ID:	**SB017**	Logged By:	Nick Iannucci
Sample Location:	21-23 Prescott Place	Project Manager:	Rich Kampf
Project Name:	DTF1801	Project Number:	DTF1801
Drilling Contractor:	LAWES	Drilling Method:	Direct Push
Driller Name:	Ernesto	Sampling Method:	Discrete Grab
Borehole Diameter:	2"	Borehole Depth:	15'
Start Time:	N/A	Completion Time:	N/A
Start Date:	2/19/18	Completion Date:	2/19/18
Latitude:	N/A	Longitude:	N/A



Lithologic Description	PID Readings
Vegetative Layer, humus.	0.0 ppm
Medium to fine sand, trace gravel. Moist.	
Concrete.	
Medium to fine sand, some gravel, trace brick. Moist.	
Medium to fine sand, trace gravel. Moist.	

Groundwater not encountered
2/19/18

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Borehole ID:	**SB018**	Logged By:	Dan Johnson
Sample Location:	21-23 Prescott Place	Project Manager:	Rich Kampf
Project Name:	DTF1801	Project Number:	DTF1801
Drilling Contractor:	PWGC	Drilling Method:	Manual Tools
Driller Name:	Dan Johnson	Sampling Method:	Discrete Grab
Borehole Diameter:	3"	Borehole Depth:	6'
Start Time:	N/A	Completion Time:	N/A
Start Date:	3/12/18	Completion Date:	3/12/18
Latitude:	N/A	Longitude:	N/A

Depth(ft)	Core Length	Recovery	Sample Zone	Lithology	Lithologic Description	PID Readings
0						
1	2ft	2ft	SB018 (0-2')		Urban Fill, some coarse sand	0.0 ppm
2						

Groundwater not encountered
3/12/18

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Borehole ID:	**SB019**	Logged By:	Dan Johnson
Sample Location:	21-23 Prescott Place	Project Manager:	Rich Kampf
Project Name:	DTF1801	Project Number:	DTF1801
Drilling Contractor:	PWGC	Drilling Method:	Manual Tools
Driller Name:	Dan Johnson	Sampling Method:	Discrete Grab
Borehole Diameter:	3"	Borehole Depth:	6'
Start Time:	N/A	Completion Time:	N/A
Start Date:	3/12/18	Completion Date:	3/12/18
Latitude:	N/A	Longitude:	N/A

Depth(ft)	Core Length	Recovery	Sample Zone	Lithology	Lithologic Description	PID Readings
0						
1	2ft	2ft	SB019 (0-2')		Urban Fill, significant building debris, little sand and silt	0.0 ppm
2						

Groundwater not encountered
3/12/18

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Borehole ID:	**SB020**	Logged By:	Dan Johnson
Sample Location:	21-23 Prescott Place	Project Manager:	Rich Kampf
Project Name:	DTF1801	Project Number:	DTF1801
Drilling Contractor:	PWGC	Drilling Method:	Manual Tools
Driller Name:	Dan Johnson	Sampling Method:	Discrete Grab
Borehole Diameter:	3"	Borehole Depth:	6'
Start Time:	N/A	Completion Time:	N/A
Start Date:	3/12/18	Completion Date:	3/12/18
Latitude:	N/A	Longitude:	N/A

Depth(ft)	Core Length	Recovery	Sample Zone	Lithology	Lithologic Description	PID Readings
0	2ft	2ft	SB020 (0-2')		Urban Fill	0.0 ppm
2	1ft	1ft			Urban Fill, pearched water	
3						

Groundwater not encountered
3/12/18

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Borehole ID:	**SB021**	Logged By:	Dan Johnson
Sample Location:	21-23 Prescott Place	Project Manager:	Rich Kampf
Project Name:	DTF1801	Project Number:	DTF1801
Drilling Contractor:	PWGC	Drilling Method:	Manual Tools
Driller Name:	Dan Johnson	Sampling Method:	Discrete Grab
Borehole Diameter:	3"	Borehole Depth:	6'
Start Time:	N/A	Completion Time:	N/A
Start Date:	3/12/18	Completion Date:	3/12/18
Latitude:	N/A	Longitude:	N/A

Depth(ft)	Core Length	Recovery	Sample Zone	Lithology	Lithologic Description	PID Readings
0–2	2ft	2ft	SB02-1 (0-2')		Urban Fill, coarse sand	0.0 ppm
2–4	2ft	2ft			Urban Fill, brown silty sand and gravel	0.0 ppm

Groundwater not encountered
3/12/18