27-03, 27-09, 27-11 40TH AVENUE AND 39-44 28TH STREET

QUEENS, NEW YORK

Remedial Investigation Report

NYC VCP Site Number: 18TMP0732Q

Prepared for:

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REMEDIAL INVESTIGATION REPORT

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LIST OF ACRONYMS

Acronym	Definition
AOC	Area of Concern
CAMP	Community Air Monitoring Plan
COC	Contaminant of Concern
CPP	Citizen Participation Plan
CSM	Conceptual Site Model
DER-10	New York State Department of Environmental Conservation Technical Guide 10
FID	Flame Ionization Detector
GPS	Global Positioning System
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
IRM	Interim Remedial Measure
NAPL	Non-aqueous Phase Liquid
NYC VCP	New York City Voluntary Cleanup Program
NYC DOHMH	New York City Department of Health and Mental Hygiene
NYC OER	New York City Office of Environmental Remediation
NYS DOH ELAP	New York State Department of Health Environmental Laboratory Accreditation Program
OSHA	Occupational Safety and Health Administration
PID	Photoionization Detector
QEP	Qualified Environmental Professional
RI	Remedial Investigation
RIR	Remedial Investigation Report
SCO	Soil Cleanup Objective
SPEED	Searchable Property Environmental Electronic Database

CERTIFICATION

I, Kenneth P. Wenz Jr., PG, LEP, am a Qualified Environmental Professional, as defined in RCNY § 43-1402(ar). I have primary direct responsibility for implementation of the Remedial Investigation for the 27-03, 27-09, and 27-11 40th Avenue, and 39-44 28th Street Site, (NYC VCP Site No. 18TMP0732Q). I am responsible for the content of this Remedial Investigation Report (RIR), have reviewed its contents and certify that this RIR is accurate to the best of my knowledge and contains all available environmental information and data regarding the property.

_____

Qualified Environmental Professional Date Signature

EXECUTIVE SUMMARY

The Remedial Investigation Report (RIR) provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy pursuant to RCNY§ 43-1407(f). The remedial investigation (RI) described in this document is consistent with applicable guidance.

Site Location and Current Usage

The Site is located at 27-03, 27-09, and 27-11 40th Avenue, and 39-44 28th Street in the Long Island City section of Queens, New York and is identified as Block 397 and Lots 33, 35, and 39 on the New York City Tax Map. As part of redevelopment, the lots are planned to be combined into a single parcel. Figure 1 shows the Site location, boundary, and layout. The total area of the Site is 17,500-square feet and the Site is bounded by 40th Avenue to the south; a 3-story public facility associated with a house of worship, to the east; a 3-story residential building with garage, and a 2-story residential building, to the north; and a 3-story residential building to the west. Currently, the Site is occupied by three, vacant 1-story commercial buildings (one building per parcel); only the building at 39-44 28th Street has a (partial) basement. According to the January 2019 Phase I ESA report for the Site, the buildings were constructed by 1970 (27-03 40th Avenue), 1950 (27-09/27-11 40th Avenue), and 1947 (39-44 28th Street).

Summary of Proposed Redevelopment Plan

The proposed future use of the Site will consist of a single, new 5-story mixed-use building, which will include commercial uses on the ground floor, market-rate apartments on the second through fifth floors, and two sub-grade, ventilated parking levels. The footprint of the new building, including the basement, will cover the entire Site area. The redevelopment plan includes demolition of all existing buildings at the Site and excavation to a depth of approximately 25 feet below ground surface (bgs). As part of development, the referenced lots are expected to be merged into a single lot. Layout of the proposed redevelopment is included in Appendix B. The current zoning designation is M1-2/R5D, allowing for mixed residential, community facility, commercial, and light industrial uses. The proposed use is consistent with existing zoning for the property.

Summary of Past Uses of Site and Areas of Concern

The historical research conducted for the Phase I ESA dated January 28, 2019 by Athenica indicates that the Site was developed with the current structures by 1970 (27-03 40th Avenue), 1950 (27-09/27-11 40th Avenue), and 1947 (39-44 28th Street). According to the Phase I ESA, the Site appeared to have been used for industrial and commercial purposes since its development. Historic uses at the Site included an auto repair facility at 27-03 40th Avenue; a dry cleaning facility, a woodshop, and a scientific glass factory at 27-09 40th Avenue; and a photo-engraving shop, a machine shop, and an auto repair facility at 29-44 28th Street.

The AOCs identified for this site include:

1. Past activities involving dry cleaning, automotive repair, and glass works, indicate the usage, storage, and potential release of petroleum products, hazardous materials and/or hazardous wastes that could have impacted the Site;
2. Potential VOC impacts to groundwater and/or soil vapor from historic dry cleaner and/or wire and die manufacturer located upgradient of the Site; and
3. The "E" Designation (E-218) associated with the Site parcels.

Summary of the Work Performed under the Remedial Investigation

Athenica Environmental Services, Inc. (Athenica) performed the following scope of work in June and July 2019:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e., structures, buildings, etc.), to supplement the initial Site inspection in January 2019, the prior August 2008 Phase II ESA, and November 2016 Phase II ESA.
2. Installed five (5) temporary groundwater monitoring wells throughout the Site to establish groundwater flow direction, and collected two (2) groundwater samples, plus one blind duplicate sample, for chemical analysis from the wells to evaluate groundwater quality. Groundwater samples could not be collected from the three (3) remaining wells, due to sediment within the well casings, so these wells were not sampled, with NYCOER approval.
3. Advanced nine (9) soil borings across the entire project Site, and collected eighteen (18) soil samples, plus an additional two (2) samples from one of the monitoring well

bore holes, plus one blind duplicate sample, for chemical analysis from the soil borings and temporary groundwater monitoring well borings to evaluate soil quality;

4. Installed seven (7) temporary soil vapor probes at the Site and collected seven (7) soil vapor samples for chemical analysis.

Summary of Environmental Findings

1. Elevation of the property is approximately 40 feet above sea level.
2. Depth to groundwater at the Site ranges from approximately 36 to 38 feet below ground surface.
3. Based on work at nearby properties, groundwater flow beneath the Site is generally from east to west.
4. Depth to bedrock is unknown, as bedrock was not encountered at the Site during this investigation.
5. The stratigraphy of the site, from the surface down, consists approximately 1.5 to 4 feet of historic fill material, underlain by approximately 60 feet of sand with silt and gravel. Layers of clay were encountered between 35 and 60 feet bgs. Bedrock was reportedly encountered in one geotechnical boring at 50 feet bgs. Boring logs from the geotechnical report are provided in Appendix F.
6. Soil/fill samples collected during the RI were compared to the New York State Department of Environmental Conservation (NYSDEC) 6NYCRR Part 375 Section 6.8 Unrestricted Use and Restricted Residential Soil Cleanup Objectives (SCOs).
    - One volatile organic compound (VOC), tetrachloroethene (PCE, max. of 11 milligrams per kilogram (mg/kg)), was detected at a concentration exceeding its Unrestricted Use SCOs in four of the samples.
    - Semi-volatile organic compounds (SVOCs) including benzo(a)anthracene (max. 2.48 mg/kg), benzo(a)pyrene (max. 2.22 mg/kg), benzo(b)fluoranthene (max. 1.78 mg/kg), benzo(k)fluoranthene (max. 1.64 mg/kg), chrysene (max. 2.27 mg/kg), dibenzo(a,h)anthracene (max. 0.522 mg/kg), and indeno(1,2,3-cd)pyrene (max. 1.78 mg/kg) were detected at concentrations exceeding their Unrestricted Use SCOs in four of the soil samples. Of these SVOCs, benzo(a)anthracene,

benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene were also detected at concentrations exceeding their Restricted Residential SCOs.

- Metals including barium (at 388 mg/kg), copper (max. 160 mg/kg), lead (max. 787 mg/kg), mercury (max. 0.684 mg/kg), selenium (at 5.36 mg/kg, in the blind duplicate sample) and zinc (max. 444 mg/kg) were detected at concentrations exceeding their respective Unrestricted Use SCOs, in eight of the 21 samples. Of these metals, only lead was also detected at concentrations exceeding its Restricted Residential SCO.
- One pesticide, 4,4'-DDT (at .0527 mg/kg), was detected at a concentration exceeding its Unrestricted Use SCO in one of the samples.
- Polychlorinated biphenyls (PCBs) were not detected in any of the soil samples at concentrations exceeding their respective Unrestricted Use SCOs.

7. Groundwater samples collected during the RI were compared to the NYSDEC Technical & Operational Guidance Series (TOGS) Class GA Standards.

    - VOCs, including 2-butanone (at 67 µg/L), acetone (max. 96 µg/L), chloroethane (max. 5.8 µg/L), chloroform (max. 880 µg/L), chloromethane (max. 25 µg/L), ethyl benzene (at 8.6 µg/L), o-xylene (at 8.2 µg/L), PCE (max. 65 µg/L), toluene (at 5.2 µg/L), and total xylenes (at 15 µg/L), were detected at concentrations exceeding Class GA groundwater standards.
    - Total metals, including arsenic (at 35.3 µg/L), barium (at 2,530 µg/L), chromium (at 578 µg/L), copper (at 715 µg/L), lead (at 238 µg/L), magnesium (max. 333,000 µg/L), manganese (max. 15,700 µg/L), nickel (at 680 µg/L), selenium (max. 14.6 µg/L), and sodium (max. 621,000 µg/L), were detected at concentrations exceeding Class GA groundwater standards.
    - Dissolved metals, including magnesium (max. 40,400 µg/L), manganese (at 737 µg/L), selenium (max. 14.6 µg/L), and sodium (max. 676,000 µg/L), were detected at concentrations exceeding Class GA groundwater standards.

- No SVOCs, pesticides or PCBs were detected in either of the groundwater samples at concentrations exceeding their respective Class GA groundwater standards.
- Several additional compounds, including Perfluoroheptanoic acid (PFHpA), Perfluorohexanoic acid (PFHxA), Perfluoro-n-butanoic acid (PFBA), Perfluorooctanoic acid (PFOA), Perfluoropentanoic acid (PFPeA), and 1,4-dioxane, were detected in the groundwater sample. There are currently no NYSDEC regulatory criteria for these compounds in groundwater.

8. Soil vapor samples collected during the RI were compared to the New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Vapor Intrusion matrices dated October 2006. Soil vapor results indicated elevated concentrations of chlorinated solvents. PCE was detected in five of the seven samples ranging from 140 $\mu g/m^3$ to 1,600,000 $\mu g/m^3$. Trichloroethene was detected in all seven samples, ranging from 0.27 $\mu g/m^3$ to 4,800 $\mu g/m^3$. Several other VOCs were detected in the seven samples.

REMEDIAL INVESTIGATION REPORT

1.0 SITE BACKGROUND

40th Avenue Dutch Kills Realty LLC has enrolled in the New York City Voluntary Cleanup Program (NYC VCP) to investigate and remediate a 17,500-square foot site located at 27-03, 27-09, and 27-11 40th Avenue, and 39-44 28th Street, in the Long Island City section of Queens, New York. Mixed (residential and commercial) use is proposed for the property. The RI work was performed between June 13, 2019 and July 2, 2019. This RIR summarizes the nature and extent of contamination and provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy that is protective of human health and the environment consistent with the use of the property pursuant to RCNY§ 43-1407(f).

1.1 Site Location and Current Usage

The Site is located at 27-03, 27-09, and 27-11 40th Avenue, and 39-44 28th Street in the Long Island City section of Queens, New York and is identified as Block 397 and Lots 33, 35, and 39 on the New York City Tax Map. As part of redevelopment, the lots are planned to be combined into a single parcel. Figure 1 shows the Site location, boundary and layout. The total area of the Site is 17,500-square feet and the Site is bounded by 40th Avenue to the south; a 3-story public facility associated with a house of worship, to the east; a 3-story residential building with garage, and a 2-story residential building, to the north; and a 3-story residential building to the west. Currently, the Site is occupied by three, 1-story commercial buildings (one building per parcel); only the building at 39-44 28th Street has a (partial) basement. The buildings at 27-03 and 27-09/27-11 40th Avenue, and 39-33 28th Street are currently vacant. According to the January 2019 Phase I ESA report for the Site, the buildings were constructed by 1970 (27-03 40th Avenue), 1950 (27-09/27-11 40th Avenue), and 1947 (39-44 28th Street).

1.2 Proposed Redevelopment Plan

The proposed future use of the Site will consist of a single, new 5-story mixed-use building, which will include commercial uses on the ground floor, market-rate apartments on the second through fifth floors, and two sub-grade, ventilated parking levels. The footprint of the new building, including the basement, will cover the entire Site area. The redevelopment plan includes demolition of all existing buildings at the Site and excavation to a depth of

approximately 25 feet below ground surface (bgs). As part of development, the referenced lots are expected to be merged into a single lot. Layout of the proposed redevelopment is included in Appendix B. The current zoning designation is M1-2/R5D, allowing for mixed residential, community facility, commercial, and light industrial uses. The proposed use is consistent with existing zoning for the property.

1.3 Description of Surrounding Property

The north-adjacent properties at 29-36 28th Street, and 39-39 27th Street are occupied by a 3-story residential building, and a 2-story residential building. The south-adjacent properties at 27-20 40th Avenue and 27-08 40th Avenue are occupied by a 2-story industrial building and a 3-story office building. The east-adjacent property at 39-42 40th Avenue, is occupied by Public School 166 Annex (according to New York City OASIS, this parcel is owned by a religious organization). The west-adjacent property at 27-01 40th Avenue, is occupied by a 3-story residential building. St. Patrick's School, a sensitive receptor identified as a day care center by the OER's SPEED application, is located approximately 100 feet to the east of the Site.

2.0 SITE HISTORY

2.1 Past Uses and Ownership

The historical research conducted for the Phase I ESA dated January 28, 2019 by Athenica indicates that the Site was developed with the current structures by 1970 (27-03 40th Avenue), 1950 (27-09/27-11 40th Avenue), and 1947 (39-44 28th Street). According to the Phase I ESA, the Site appeared to have been used for industrial and commercial purposes since its development. Historic uses at the Site included an auto repair facility at 27-03 40th Avenue; a dry cleaning facility, a woodshop, and a scientific glass factory at 27-09 40th Avenue; and a photo-engraving shop, a machine shop, and an auto repair facility at 29-44 28th Street.

2.2 Previous Investigations

Athenica performed a Phase I ESA in January 2019. This report identified three Recognized Environmental Conditions (RECs) in association with the Site:

- The presence of an "E" Designation (E-218) at the Site for "Hazardous Materials with a Phase I and Phase II Testing Protocol", along with the Site's historic operations (dry cleaning, automotive repair, machine shop and glassworks) is considered to be a REC.
- Several upgradient facilities, including a former drycleaner and a former industrial wire and die manufacturing facility, are reportedly sources of PCE impacts to groundwater and soil vapor in the Site vicinity. Groundwater and soil vapor beneath the Site may be impacted by releases from these facilities.
- Potential Vapor Intrusion Conditions (pVECs) may be present, as a result of historic activities at the Site and from off-Site industrial facilities.

Prior to Athenica's Phase I ESA, a Phase I was conducted at the portion of the Site at 27-09 and 27-11 40th Avenue. This Phase I ESA, prepared by Merritt Environmental Consulting Corp. (Merritt), dated November 2016 did not identify any RECs associated with the Site, other than the Site's "E" Designation, based on the results from an August 11, 2008 Phase II Subsurface Investigation Report prepared by AEI Environmental and Engineering Services (AEI). AEI collected five soil samples from beneath the Site building at 27-09 and 27-11 40th Avenue. The Phase I ESA prepared by Merritt concluded that no further action was recommended, but soil

sampling may be recommended if the Site building were to be redeveloped or converted into residential use. They noted that the dry cleaning operation was active at the time of report.

Merritt conducted a follow-up Phase II Focused Subsurface Site Investigation in January 2017. Two temporary groundwater wells were installed in the alley between 27-03 and 27-09/27-11 40th Avenue, and two groundwater samples were collected and analyzed for VOCs. The concentrations of PCE (max detected 54.1µg/L) exceeded the regulatory limit of 5.0 µg/L. In comparison to the absence of PCE detections in the soil samples collected during AEI's 2008 Phase II investigation, Merritt concluded that PCE in groundwater was the result of off-Site sources and the Site's operations were not the source of the observed groundwater impact. No further investigation was recommended.

2.3 Site Inspection

Kenneth P. Wenz, Jr., P.G., L.E.P. and Evan Greenberg E.I.T., of Athenica conducted a Site inspection on May 9, 2019. The Site reconnaissance consisted of observing conditions throughout the accessible areas of the Site and around the perimeter of the Site. At the date of the inspection, the Site consisted of the current configuration of three buildings. However, at the time of inspection, the Site building at 39-44 28th Street was occupied by an active machine shop that has since vacated the premises. No additional areas of concern beyond those identified in the Phase I ESA Report by Athenica dated January 28, 2019, were observed during the Site inspection.

2.4 Areas of Concern

The AOCs identified for this site include:

1. Past activities involving dry cleaning automotive repair, and glass works, indicate the usage, storage, and potential release of petroleum products, hazardous materials and/or hazardous wastes that could have impacted the Site;
2. Potential VOC impacts to groundwater and/or soil vapor from historic dry cleaner and/or wire and die manufacturer located upgradient of the Site; and
3. The "E" Designation (E-218) associated with the Site parcels.

The prior reports are presented in Appendix A.

3.0 PROJECT MANAGEMENT

3.1 Project Organization

The Qualified Environmental Profession (QEP) responsible for preparation of this RIR is Kenneth P. Wenz, Jr., P.G., L.E.P.

3.2 Health and Safety

All work described in this RIR was performed in full compliance with applicable laws and regulations, including Site and OSHA worker safety requirements and HAZWOPER requirements. The health and safety plan is included in Appendix E.

3.3 Materials Management

All material encountered during the RI was managed in accordance with applicable laws and regulations.

4.0 REMEDIAL INVESTIGATION ACTIVITIES

Athenica Environmental Services, Inc. (Athenica) performed the following scope of work between June 13, 2019 and July 2, 2019:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e., structures, buildings, etc.), to supplement the initial Site inspection in January 2019, the prior August 2008 Phase II ESA, and November 2016 Phase II ESA.

2. Installed five (5) temporary groundwater monitoring wells throughout the Site to establish groundwater flow, and collected two (2) groundwater samples, plus one blind duplicate sample, for chemical analysis, to evaluate groundwater quality. Groundwater samples could not be collected from the three (3) remaining wells, due to sediment within the well casings, so these wells were not sampled, with NYCOER approval.

3. Advanced nine (9) soil borings across the entire project Site, and collected eighteen (16) soil samples, plus an additional two (2) soil samples from one monitoring well boring, plus one blind duplicate sample, for chemical analysis, to evaluate soil quality;

4. Installed seven (7) temporary soil vapor probes at the Site and collected seven (7) soil vapor samples for chemical analysis.

4.1 Geophysical Investigation

A geophysical survey was not conducted, as none of the previous Phase I ESA reports indicated the potential presence of underground storage tanks at the Site.

4.2 Borings and Monitoring Wells

Drilling and Soil Logging

During the remedial investigation DK Drilling of New York (DK), advanced a total of nine soil borings across the Site from June 13, 2019 to June 26, 2019. The borings were designated B-1, B-2, B-3, B-4, B-5, B-7, B-8, B-A, and B-B. B-1, B-2, B-3, B-4, B-5, B-7, and B-8 were advanced as environmental and geotechnical borings, to an approximate depth of 60 feet bgs. Borings B-A and B-B were advanced for environmental sampling only. All soil borings were

advanced continuously, using either a track-mounted or truck-mounted drill rig. Soil samples were collected using a decontaminated split spoon sampler.

During advancement of the soil borings, the samples collected for environmental purposes were screened for evidence of contamination utilizing field observations (odor and/or staining) and a photoionization detector (PID). A PID makes use of the principle of photoionization for the detection and qualitative measurement of organic vapors. A PID does not respond to all compounds similarly, rather, each compound has its own response factor relative to its calibration. For this investigation, the PID was calibrated to the compound isobutylene, as published by the manufacturer. No staining, odors, or elevated PID readings were observed in any of the samples collected for laboratory analysis.

At each of the nine soil borings, soil samples were collected for laboratory analysis from depths of the 0 to 2 feet bgs and 25 to 27 feet bgs. In addition, soil samples were collected from the boring for monitoring well TW-3, also from a depths of 0 to 2 feet bgs and 25 to 27 feet bgs. A blind duplicate soil sample was also collected for chemical analysis from SB-1, 25-27'.

Boring logs prepared for the concurrent geotechnical investigation are attached in Appendix F. A map showing the location of soil borings is shown in Figure 2.

Groundwater Monitoring Well Construction

A total of five (5) temporary groundwater monitoring wells were installed during the Remedial Investigation, to establish the Site-specific groundwater flow direction and in an attempt to determine the groundwater quality beneath the Site. Four of the groundwater monitoring wells, TW-1, TW-2, TW-3, and TW-4, were installed to a depth of 40 feet bgs. TW-5 was installed to a depth of 60 feet bgs. Groundwater samples were collected from TW-4 and TW-5, along with a duplicate sample collected from TW-5. Groundwater samples could not be retrieved from the three (3) remaining wells, TW-1, TW-2, and TW-3, due to sediment within the well casings, so these wells were not sampled, with NYCOER approval. Monitoring well locations are shown in Figure 2.

Survey

The locations of soil borings, groundwater monitoring wells, and soil vapor borings were field measured to a minimum of two permanent site features. Since only two temporary wells contained sufficient water for sampling, the temporary monitoring wells were not surveyed.

Water Level Measurement

Depth to groundwater measurements were collected utilizing a Solinst® 122 Oil/Water Interface Probe (Interface Probe). The Interface Probe can measure depths to 0.01 feet.

Groundwater was encountered at depths ranging from approximately 36 to 38 feet bgs. Historic measurements taken during the 2017 Merrit Phase II indicate that groundwater was encountered at a depth of approximately 41 feet bgs. Based on previous activities are a nearby property, the groundwater flow direction at the Site is expected to be generally from east to west.

4.3 Sample Collection and Chemical Analysis

Sampling performed as part of the field investigation was conducted for all Areas of Concern and also considered other means for bias of sampling based on professional judgment, area history, field instrument measurements, odor, or other field indicators. Soil and soil vapor have been sampled and evaluated in the RIR. Discrete (grab) samples have been used for determination of the nature and extent of contamination and to determine the impact of contaminants on public health and the environment. The sampling performed and presented in this RIR provides sufficient basis for evaluation of remedial action alternatives, establishment of a qualitative human health exposure assessment, and selection of a final remedy.

Soil Sampling

A total of twenty-one (21) soil samples were collected for chemical analysis during this RI, including one blind duplicate sample. Data on soil sample collection for chemical analyses, including dates of collection and sample depths, are provided in Table 1. Figure 2 shows the location of samples collected in this investigation. The laboratory and analytical methods utilized during this investigation are shown below.

Soil samples were collected into pre-cleaned, laboratory-supplied glassware, stored in a chilled cooler (4º C), and submitted for analysis. All soil samples were analyzed for the presence

of TCL VOCs by EPA Method 8260, TCL SVOCs by EPA Method 8270, TCL pesticides/PCBs by EPA Methods 8081/8082, and TAL metals. All samples were transported under proper chain of custody procedures to York Analytical Laboratories, a New York State Department of Health ELAP-certified laboratory. Each soil sample collected from the borings was acquired using a decontaminated split-spoon sampler.

Following completion of sampling, each of the soil borings was properly abandoned.

Groundwater Sampling

A total of three (3) groundwater samples were collected for chemical analysis during this RI, including one blind duplicate sample. Groundwater was not collected from TW-1, TW-2, and TW-3, due to sediment within the well casings, so these wells were not sampled, with NYCOER approval. Data on groundwater sample collection for chemical analyses, including dates of collection, are provided in Table 2. Figure 2 shows the location of samples collected in this investigation. The laboratory and analytical methods utilized during this investigation are shown below.

Prior to sample collection, each well to be sampled was purged of a minimum of three casing volumes, using a new, dedicated polyethylene bailer. Groundwater samples were collected using the same bailer used for purging, into pre-cleaned, laboratory-supplied glassware, stored in a chilled cooler (4º C), and submitted for analysis. All groundwater samples were analyzed for the presence of TCL VOCs by EPA Method 8260, TCL SVOCs by EPA Method 8270, TCL pesticides/PCBs by EPA Methods 8081/8082, and TAL metals (both total and dissolved metals were analyzed). All samples were transported under proper chain of custody procedures to York Analytical Laboratories. Each soil sample collected using a dedicated bailer and rope. The samples were also submitted with a trip blank, analyzed for VOCs only, as an additional quality control measure.

Additionally, the sample collected from TW-5 was also analyzed for chemical analysis of emerging contaminants PFOAs/PFAS and 1,4-dioxane. This sample was collected following NYSDEC, laboratory, and industry-standard sampling protocols.

Soil Vapor Sampling

A total of seven (7) temporary soil vapor probes were installed during the RI, to approximately 25 feet bgs. Seven (7) soil vapor samples were collected for chemical analysis

during this RI. Soil vapor sampling locations are shown in Figure 2. Soil vapor sample collection data are reported in Table 3. Soil vapor sampling logs are included in Appendix G. Methodologies used for soil vapor assessment conformed to the approved RI Work Plan and *NYSDOH Final Guidance on Soil Vapor Intrusion, October 2006*, as amended. Since the existing Site buildings are planned to be demolished, indoor and outdoor ambient air samples were not collected during this investigation. As part of the soil vapor sampling program, potential VOC sources within the Site buildings were identified and evaluated, using NYSDOH Indoor Air Questionnaire forms; the completed forms are included in Appendix D.

The soil vapor samples were collected at a depth of approximately 25 feet bgs from temporary implants which were installed throughout the buildings utilizing a drill rig. Sample probes were backfilled using environmental grade silica sand and topped with a bentonite layer to seal the tubing in the boring.

The soil vapor probes were connected to ¼-inch outer diameter inert Teflon-lined polyethylene tubing which extended above ground surface to allow for purging and sampling. Approximately three tubing volumes of air were purged from each vapor probe at a flow rate less than 200 milliliters per minute, and a representative vapor sample was collected for laboratory analysis over an approximately two-hour period, utilizing a 6-liter pre-cleaned SUMMA canister. After vapor sampling, each SUMMA canister was labeled and transported to York Analytical Laboratories under proper chain of custody procedures, for analysis of VOCs via EPA Method TO-15.

As part of the soil vapor sampling program, helium gas was used as a quality assurance/quality control (QA/QC) device to verify the integrity of the soil vapor probe seals, in accordance with NYSDOH protocols. A shroud served to keep the tracer gas in contact with the probes during testing. A portable helium detector was used to screen for soil vapor from each soil vapor sample probe for the tracer gas prior to any sampling. The sampling points were confirmed to be sealed prior to sampling and after sampling.

Chemical Analysis

Chemical analytical work presented in this RIR has been performed in the following manner:

Factor	Description
Quality Assurance Officer	The chemical analytical quality assurance is Sarah Widomski, of York Analytical Laboratories, Inc.
Chemical Analytical Laboratory	The chemical analytical laboratory used in the RI is York Analytical Laboratories, Inc., which is NYSDOH ELAP certified.
Chemical Analytical Methods	Soil analytical methods: • TAL Metals by EPA Method 6010D; • VOCs by EPA Method 8260C/5035; • SVOCs by EPA Method 8270D; • Pesticides by EPA Method 8081B; and • PCBs by EPA Method 8082A Groundwater analytical methods: • TAL Metals by EPA Method 6010D; o Total and Dissolved (lab filtered) • VOCs by EPA Method 8260C; • SVOCs by EPA Method 8270D; • Pesticides by EPA Method 8081B; • PCBs by EPA Method 8082A; • PFOAs/PFAS by EPA Method 537.1M; and • 1,4-Dioxane by EPA Method 8270-SIM. Soil vapor analytical methods: • VOCs by TO-15.

Results of Chemical Analyses

Laboratory data for soil, groundwater and soil vapor samples are summarized in Tables 1, 2, and 3. Laboratory data deliverables for all samples evaluated in this RIR are provided in digital form in Appendix H (soil), Appendix I (groundwater), and Appendix J (soil vapor).

5.0 ENVIRONMENTAL EVALUATION

5.1 Geological and Hydrogeological Conditions

Stratigraphy

The stratigraphy of the site, from the surface down, consists approximately 1.5 to 4 feet of historic fill material, underlain by approximately 60 feet of sand with silt and gravel. Layers of clay were encountered between 35 and 60 feet bgs. Bedrock was reportedly encountered in one geotechnical boring at 50 feet bgs. Boring logs from the geotechnical report are provided in Appendix F.

Hydrogeology

The depth to groundwater at the Site during this investigation was measured at approximately 36 to 38 feet bgs. During the 2017 groundwater sampling, the depth to water was reported to be approximately 41 feet bgs. Based on previous activities at a nearby property, groundwater flow at the Site is generally from east to west.

5.2 Soil Chemistry

Soil/fill samples collected during this RI were compared to 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (SCOs) and Restricted Residential SCOs.

One VOC, PCE (max. 11 milligrams per kilogram (mg/kg)), was detected at a concentration exceeding its Unrestricted Use SCOs in four of the samples. No VOCs were detected at concentrations exceeding Restricted Residential SCOs.

SVOCs including benzo(a)anthracene (max. 2.48 mg/kg), benzo(a)pyrene (max. 2.22 mg/kg), benzo(b)fluoranthene (max. 1.78 mg/kg), benzo(k)fluoranthene (max. 1.64 mg/kg), chrysene (max. 2.27 mg/kg), dibenzo(a,h)anthracene (max. 0.522 mg/kg), and indeno(1,2,3-cd)pyrene (max. 1.78 mg/kg) were detected at concentrations exceeding their Unrestricted Use SCOs in four of the samples. Of these SVOCs, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene were also detected at concentrations exceeding their Restricted Residential SCOs.

Metals including barium (at 388 mg/kg), copper (max. 160 mg/kg), lead (max. 787 mg/kg), mercury (max. 0.684 mg/kg), selenium (at 5.36 mg/kg, in the blind duplicate sample) and zinc (max. 444 mg/kg) were detected at concentrations exceeding their respective Unrestricted Use

SCOs, in eight of the 21 samples. Of these metals, only lead was also detected at concentrations exceeding its Restricted Residential SCO.

One pesticide, 4,4'-DDT (at 0.0527 mg/kg), was detected at a concentration exceeding its Unrestricted Use SCO in one of the samples.

Polychlorinated biphenyls (PCBs) were not detected at concentrations exceeding the Unrestricted Use SCO in any of the soil samples.

The PCE detected at a concentration above its Unrestricted Use SCO was in the deeper (25 to 27 foot) sample collected from boring B-A; all other exceedances of SCOs were in the soil sample collected from the shallower (0 to 2 foot) interval of the respective borings.

Data collected during the RI are sufficient to assess the vertical and horizontal distribution of contaminants in soil/fill at the Site. Summary tables of data for chemical analyses performed on soil samples are included in Table 1. Figure 3 shows the location and posts the values for soil/fill that exceed the 6NYCRR Part 375 Track 1 and Track 2 Soil Cleanup Objectives.

5.3 Groundwater Chemistry

Groundwater samples collected during the RI were compared to the NYSDEC Technical & Operational Guidance Series (TOGS) Class GA Standards.

VOCs, including 2-butanone (at 67 µg/L), acetone (max. 96 µg/L), chloroethane (max. 5.8 µg/L), chloroform (max. 880 µg/L), chloromethane (max. 25 micrograms per liter (µg/L)), ethyl benzene (at 8.6 µg/L), o-xylene (at 8.2 µg/L), PCE (max. 65 µg/L), toluene (at 5.2 µg/L), and total xylenes (at 15 µg/L), were detected at concentrations exceeding Class GA groundwater standards.

Total metals, including arsenic (at 35.3 µg/L), barium (at 2,530 µg/L), chromium (at 578 µg/L), copper (at 715 µg/L), lead (at 238 µg/L), magnesium (max. 333,000 µg/L), manganese (max. 15,700 µg/L), nickel (at 680 µg/L), selenium (max. 14.6 µg/L), and sodium (max. 621,000 µg/L), were detected at concentrations exceeding Class GA groundwater standards.

Dissolved metals, including magnesium (max. 40,400 µg/L), manganese (at 737 µg/L), selenium (max. 14.6 µg/L), and sodium (max. 676,000 µg/L), were detected at concentrations exceeding Class GA groundwater standards.

No SVOCs, pesticides, or PCBs were detected at concentrations exceeding Class GA groundwater standards.

Several PFOA/PFAS compounds, including perfluoroheptanoic acid (PFHpA), perfluorohexanoic acid (PFHxA), perfluoro-n-butanoic acid (PFBA), perfluorooctanoic acid (PFOA), and perfluoropentanoic acid (PFPeA), as well as 1,4-dioxane, were detected in the groundwater sample collected from TW-5. There are currently no NYSDEC regulatory criteria for these compounds in groundwater.

Summary tables of data for chemical analyses performed on groundwater samples are included in Table 2. Figure 4 shows the location and posts the values for groundwater that exceed TOGS Class GA standards.

5.4 Soil Vapor Chemistry

Soil vapor samples collected during the RI were compared to the compounds listed in the *NYSDOH Final Guidance on Soil Vapor Intrusion, October 2006*, as amended. Soil vapor results indicated detectable concentrations of several chlorinated VOCs (CVOCs). PCE was detected in five of the seven samples, at concentrations ranging from 140 micrograms per cubic meter ($\mu g/m^3$) to 1,600,000 $\mu g/m^3$. TCE was detected in all seven samples, at concentrations ranging from 0.27 $\mu g/m^3$ to 4,800 $\mu g/m^3$. Several other VOCs, including 1,1-dichloroethylene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,4-dichlorobenzene, 2-butanone, 2-hexanone, acetone, benzene, carbon disulfide, carbon tetrachloride, chloroethane, chloroform, chloromethane, cis-1,2-dichloroethylene, cyclohexane, dichlorodifluoromethane, ethyl acetate, ethyl benzene, isopropanol, methyl methacrylate, methylene chloride, n-heptane, n-hexane, o-xylene, p- & m- xylenes, p-ethyltoluene, propylene, toluene, trans-1,2-dichloroethylene, and trichlorofluoromethane (Freon 11), were detected in the air samples.

Data collected during the RI is sufficient to assess the distribution of contaminants in soil vapor at the Site. A summary table of data for chemical analyses performed on soil vapor samples is included in Table 3. Figure 5 shows the location and posts the values for soil vapor samples.

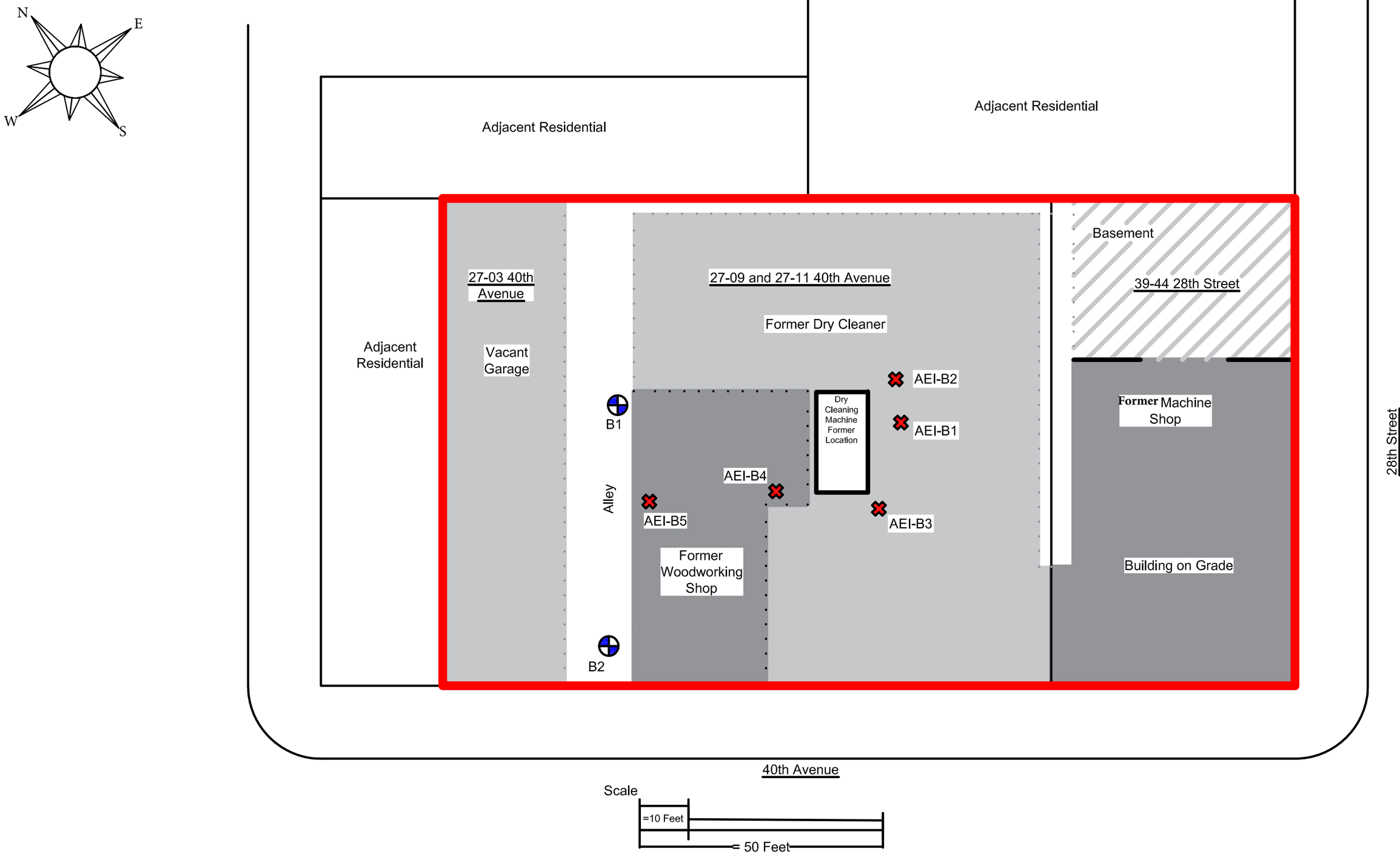
5.5 Prior Activity

Based on an evaluation of the data and historic Site uses, disposal of some amounts of hazardous waste cannot be ruled out at this site.

5.6 Impediments to Remedial Action

Concentrations of compounds above applicable SCOs in soil samples were, with the exception of PCE, detected only in the shallow sample collected at the respective borings. Since the planned redevelopment includes excavation to approximately 25 feet bgs for sub-grade parking, it is anticipated that any contaminated soils identified during this investigation will be removed during redevelopment.

FIGURES



LEGEND:

- 2008 AEI Soil Borings
- 2017 Merritt Soil Borings
- Site Boundary
- Building Boundary
- Lot Boundary

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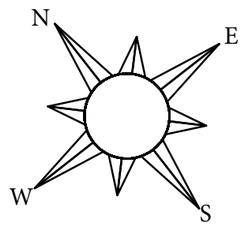
Note: Locations approximate

Date:	August 5, 2019
Drawn by:	EVAN GREENBERG
Checked by:	KEN WENZ
Drawing Scale:	AS DRAWN
Project No.:	19-133-0016

Site: 27-03, 27-09, 27-11 40th Avenue, and 39-44 28th Street, Long Island City, NY 11101

Figure: 1

Title: SITE LAYOUT AND HISTORIC SAMPLE LOCATIONS

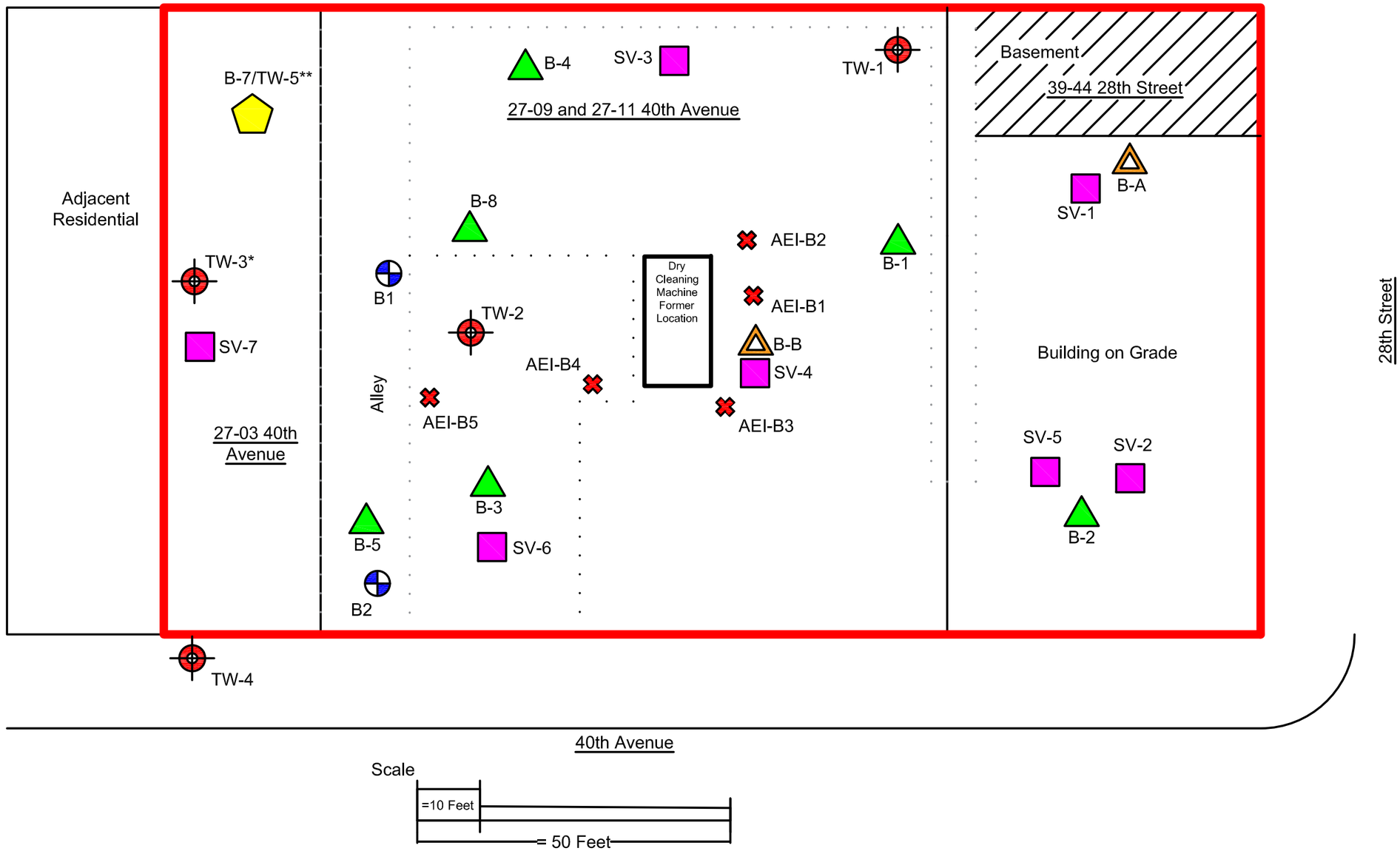


Legend

- 4 Temporary Groundwater Wells
- 2 Soil Borings to 25 feet bgs
- 6 Soil Borings concurrent with Geotechnical Borings
- 7 Soil Vapor Probes
- 1 Temporary Groundwater Well concurrent with Geotechnical Boring

* Two soil samples were collected for laboratory analysis during installation of TW-3

** Two soil samples were collected for laboratory analysis during installation of B-7/TW-5



Assumed Groundwater Flow Direction

LEGEND:

- 2008 AEI Soil Borings
- 2017 Merritt Soil Borings
- Site Boundary
- Building Boundary
- Lot Boundary

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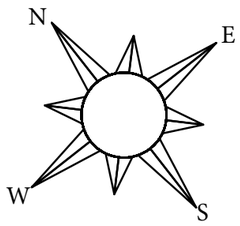
Date:	July 18, 2019
Drawn by:	EVAN GREENBERG
Checked by:	KEN WENZ
Drawing Scale:	AS DRAWN
Project No.:	19-133-0016

Site: 27-03, 27-09, 27-11 40th Avenue, and 39-44 28th Street, Long Island City, NY 11101

Figure: 2

Title: SAMPLE LOCATION MAP



Legend

- Temporary Groundwater Well
- 2 Soil Borings to 25 feet bgs
- 6 Soil Borings concurrent with Geotechnical Borings
- 1 Temporary Groundwater Well concurrent with Geotechnical Boring

* Two soil samples were collected for laboratory analysis during installation of TW-3

** Two soil samples were collected for laboratory analysis during installation of B-7/TW-5

Assumed Groundwater Flow Direction

B-4

Sample Depth	0'-2'	UU-SCOs	RR-SCOs
Compound	Result		
Semi-Volatiles, 8270 - Comprehensive	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	10		
Benzo(a)anthracene	2.020	1	1
Benzo(a)pyrene	1.660	1	1
Benzo(b)fluoranthene	1.520	1	1
Benzo(k)fluoranthene	1.380	0.8	3.9
Chrysene	1.840	1	3.9
Indeno(1,2,3-cd)pyrene	1.110	0.5	0.5
Metals, Target Analyte	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1		
Mercury	0.492	0.18	0.81
Pesticides, 8081 target list	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	5		
4,4'-DDT	0.0527	0.0033	7.9

B-1

Sample Depth	0'-2'	UU-SCOs	RR-SCOs
Compound	Result		
Volatile Organics, 8260 - Comprehensive	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	100		
Tetrachloroethylene	5.600	1.3	19
Semi-Volatiles, 8270 - Comprehensive	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	10		
Benzo(a)anthracene	1.700	1	1
Benzo(a)pyrene	1.400	1	1
Benzo(b)fluoranthene	1.370	1	1
Benzo(k)fluoranthene	1.200	0.8	3.9
Chrysene	1.560	1	3.9
Indeno(1,2,3-cd)pyrene	0.838	0.5	0.5
Metals, Target Analyte	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1		
Copper	76.700	50	270
Lead	710	63	400
Mercury	0.375	0.18	0.81
Zinc	415	109	10000

B-A

Sample Depth	0'-2'	25'-27'	UU-SCOs	RR-SCOs
Compound	Result	Result		
Volatile Organics, 8260 - Comprehensive	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	200	200		
Tetrachloroethylene	2.500	11	1.3	19
Metals, Target Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1	1		
Zinc	222	44	109	10,000

TW-3

Sample Depth	0'-2'	UU-SCOs	RR-SCOs
Compound	Result		
Metals, Target Analyte	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1		
Lead	149	63	400
Mercury	0.466	0.18	0.81

B-5

Sample Depth	0'-2'	UU-SCOs	RR-SCOs
Compound	Result		
Metals, Target Analyte	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1		
Copper	70.500	50	270
Lead	355	63	400
Mercury	0.298	0.18	0.81
Zinc	288	109	10000

B-3

Sample Depth	0'-2'	UU-SCOs	RR-SCOs
Compound	Result		
Semi-Volatiles, 8270 - Comprehensive	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	2		
Benzo(a)anthracene	1.130	1	1
Benzo(a)pyrene	1.050	1	1
Chrysene	1.040	1	3.9
Indeno(1,2,3-cd)pyrene	0.595	0.5	0.5
Metals, Target Analyte	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1		
Lead	419	63	400
Mercury	0.357	0.18	0.81
Zinc	344	109	10000

B-B

Sample Depth	0'-2'	UU-SCOs	RR-SCOs
Compound	Result		
Volatile Organics, 8260 - Comprehensive	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	100		
Tetrachloroethylene	8.400	1.3	19
Semi-Volatiles, 8270 - Comprehensive	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	10		
Benzo(a)anthracene	2.480	1	1
Benzo(a)pyrene	2.220	1	1
Benzo(b)fluoranthene	1.780	1	1
Benzo(k)fluoranthene	1.640	0.8	3.9
Chrysene	2.270	1	3.9
Indeno(1,2,3-cd)pyrene	1.780	0.5	0.5
Metals, Target Analyte	mg/Kg	mg/Kg	mg/Kg
Dilution Factor	1		
Barium	388	350	400
Copper	160	50	270
Lead	787	63	400
Mercury	0.684	0.18	0.81
Zinc	444	109	10000

B-4

27-09 and 27-11 40th Avenue

B-7/TW-5**

(No Exceedances)

Adjacent Residential

B-8 (No Exceedances)

TW-3*

Dry Cleaning Machine Former Location

B-1

B-A

ment

39-44 28th Street

B-B

Building on Grade

28th Street

Alley

27-03 40th Avenue

B-5

B-3

B-2 (No Exceedances)

40th Avenue

Scale

=10 Feet

= 50 Feet

No exceedances detected in samples not shown or compounds not shown

LEGEND:

- Building Boundary
- Lot Boundary
- Site Boundary

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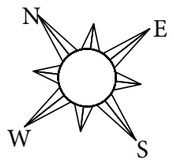
Notes:
UU-SCOs : 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives
RR-SCOs : 6 NYCRR Part 375 Restricted Residential Use Soil Cleanup Objectives
Exceeds UU-SCOs
Exceeds RR-SCOs

Date:	July 18, 2019
Drawn by:	EVAN GREENBERG
Checked by:	KEN WENZ
Drawing Scale:	AS DRAWN
Project No.:	19-133-0016

Site: 27-03, 27-09, 27-11 40th Avenue, and 39-44 28th Street, Long Island City, NY 11101

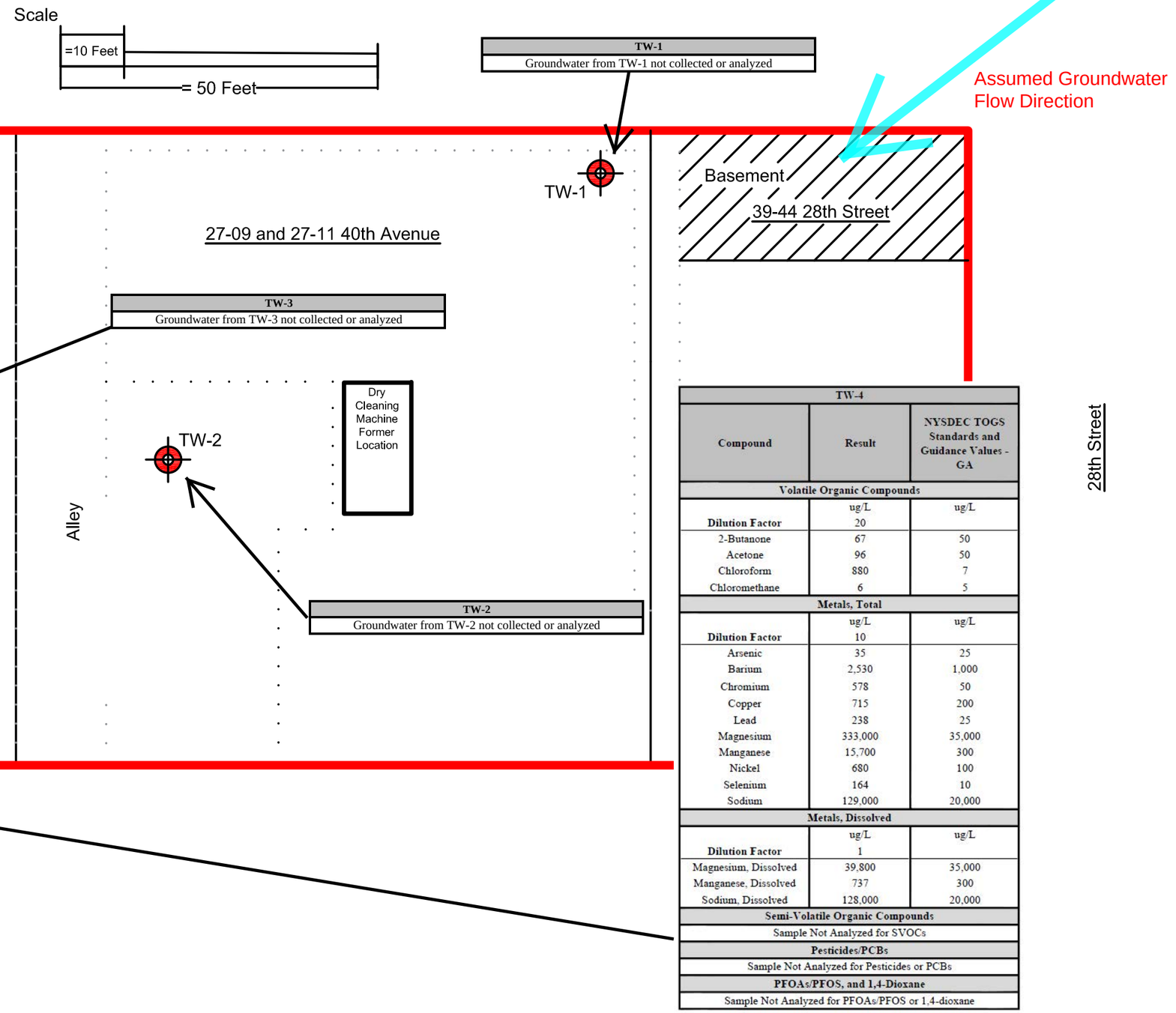
Figure: 3

Title: EXCEEDANCES IN SOIL SAMPLES



TW-5		
Compound	**Result**	**NYSDEC TOGS Standards and Guidance Values - GA**
Volatile Organic Compounds		
Dilution Factor	ug/L 20	ug/L
Acetone	55	50
Chloroethane	5	5
Chloroform	670	7
Chloromethane	24	5
Ethyl Benzene	9	5
o-Xylene	8	5
Tetrachloroethylene	64	5
Toluene	5	5
Xylenes, Total	15	5
Semi-Volatile Organic Compounds		
No Exceedances detected		
Metals, Total		
Dilution Factor	ug/L 1	ug/L
Magnesium	37,700	35,000
Manganese	344	300
Selenium	12.9	10
Sodium	621,000	20,000
Metals, Dissolved		
Dilution Factor	ug/L 1	ug/L
Magnesium, Dissolved	39,100	35,000
Selenium, Dissolved	12.900	10
Sodium, Dissolved	676,000	20,000
Pesticides/PCBs		
No Exceedances detected		

TW-5	
PFOAs/PFOS, and 1,4-Dioxane	
Compound **Dilution Factor**	ug/L 1
1,4-Dioxane	3.120
Perfluoroheptanoic acid (PFHpA)	0.00225
Perfluorohexanoic acid (PFHxA)	0.00855
Perfluoro-n-butanoic acid (PFBA)	0.00621
Perfluorooctanoic acid (PFOA)	0.00328
Perfluoropentanoic acid (PFPeA)	0.0161



TW-4		
Compound	**Result**	**NYSDEC TOGS Standards and Guidance Values - GA**
Volatile Organic Compounds		
Dilution Factor	ug/L 20	ug/L
2-Butanone	67	50
Acetone	96	50
Chloroform	880	7
Chloromethane	6	5
Metals, Total		
Dilution Factor	ug/L 10	ug/L
Arsenic	35	25
Barium	2,530	1,000
Chromium	578	50
Copper	715	200
Lead	238	25
Magnesium	333,000	35,000
Manganese	15,700	300
Nickel	680	100
Selenium	164	10
Sodium	129,000	20,000
Metals, Dissolved		
Dilution Factor	ug/L 1	ug/L
Magnesium, Dissolved	39,800	35,000
Manganese, Dissolved	737	300
Sodium, Dissolved	128,000	20,000
Semi-Volatile Organic Compounds		
Sample Not Analyzed for SVOCs		
Pesticides/PCBs		
Sample Not Analyzed for Pesticides or PCBs		
PFOAs/PFOS, and 1,4-Dioxane		
Sample Not Analyzed for PFOAs/PFOS or 1,4-dioxane		

LEGEND:

- Building Boundary
- Lot Boundary
- SIte Boundary

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Legend

- 4 Temporary Groundwater Wells
- 1 Temporary Groundwater Well concurrent with Geotechnical Boring

Date:	July 18, 2019
Drawn by:	EVAN GREENBERG
Checked by:	KEN WENZ
Drawing Scale:	AS DRAWN
Project No.:	19-133-0016

Site: 27-03, 27-09, 27-11 40th Avenue, and 39-44 28th Street, Long Island City, NY 11101

Figure: 4

Title: EXCEEDANCES IN GROUNDWATER SAMPLES

N E W S

Legend

7 Soil Vapor Probes

SV-7	
Dilution Factor	1.572
Compound	Concentration (ug/m3)
1,1-Dichloroethylene	0.500
1,2,4-Trimethylbenzene	2.900
1,3,5-Trimethylbenzene	0.930
1,4-Dichlorobenzene	2.300
2-Butanone	18
2-Hexanone	3.500
Acetone	96
Benzene	0.800
Carbon disulfide	0.640
Carbon tetrachloride	1.700
Chloroethane	0.580
Chloromethane	2.900
Cyclohexane	1.600
Dichlorodifluoromethane	1.900
Ethyl acetate	5.500
Ethyl Benzene	1.300
Isopropanol	3.600
Methyl Methacrylate	0.770
Methylene chloride	4.900
n-Heptane	1.600
n-Hexane	1.300
o-Xylene	2
p- & m- Xylenes	4.600
p-Ethyltoluene	2
Tetrachloroethylene	140
Toluene	8.800
Trichloroethylene	2.900
Trichlorofluoromethane (Freon 11)	2.800

SV-3	
Dilution Factor	7.3
Compound	Concentration (ug/m3)
2-Butanone	93
2-Hexanone	12
Ethyl acetate	13
Isopropanol	13
Methylene chloride	5.800
Propylene	27
Toluene	8.500
Trichloroethylene	15
Trichlorofluoromethane (Freon 11)	5.700

SV-4	
Dilution Factor	10339
Compound	Concentration (ug/m3)
1,1-Dichloroethylene	3.600
2-Butanone	220
2-Hexanone	35
Acetone	720
Chloroform	36
cis-1,2-Dichloroethylene	23
Propylene	25
Tetrachloroethylene	1,600,000
Toluene	53
trans-1,2-Dichloroethylene	7.100
Trichloroethylene	4,800
Trichlorofluoromethane (Freon 11)	32

SV-1	
Dilution Factor	146.64
Compound	Concentration (ug/m3)
2-Butanone	130
2-Hexanone	26
Acetone	350
Chloroform	52
cis-1,2-Dichloroethylene	12
Methylene chloride	18
o-Xylene	9.600
p- & m- Xylenes	18
Propylene	15
Tetrachloroethylene	39,000
Toluene	16
Trichloroethylene	130
Trichlorofluoromethane (Freon 11)	19

SV-6	
Dilution Factor	8.45
Compound	Concentration (ug/m3)
1,2,4-Trimethylbenzene	4.200
2-Butanone	17
Acetone	170
Carbon tetrachloride	2.100
Chloroform	31
cis-1,2-Dichloroethylene	1.700
Cyclohexane	2.900
Dichlorodifluoromethane	4.200
Ethyl acetate	12
o-Xylene	3.700
Tetrachloroethylene	1,600
Toluene	9.200
Trichloroethylene	19
Trichlorofluoromethane (Freon 11)	8.100

SV-5	
Dilution Factor	89.25
Compound	Concentration (ug/m3)
2-Butanone	54
Acetone	270
Chloroform	44
cis-1,2-Dichloroethylene	14
Tetrachloroethylene	15,000
Toluene	17
Trichloroethylene	130
Trichlorofluoromethane (Freon 11)	18

SV-2	
Dilution Factor	1.664
Compound	Concentration (ug/m3)
1,2,4-Trimethylbenzene	1.600
1,4-Dichlorobenzene	2.600
2-Butanone	90
2-Hexanone	16
Carbon tetrachloride	0.420
Chloromethane	1.100
Dichlorodifluoromethane	1.700
Isopropanol	1.700
Methylene chloride	1.200
n-Heptane	1.500
n-Hexane	1.100
o-Xylene	0.790
p- & m- Xylenes	1.700
p-Ethyltoluene	1.100
Propylene	2.600
Toluene	4.800
Trichloroethylene	0.270
Trichlorofluoromethane (Freon 11)	1.100

27-09 and 27-11 40th Avenue

39-44 28th Street

28th Street

Alley

Dry Cleaning Machine Former Location

Building on Grade

27-03 40th Avenue

40th Avenue

SV-1 SV-2 SV-3 SV-4 SV-5 SV-6 SV-7

Scale

=10 Feet

Assumed Groundwater Flow Direction

LEGEND:

- Building Boundary
- Lot Boundary
- Site Boundary

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Date:	July 18, 2019
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Checked by:	KEN WENZ
Drawing Scale:	AS DRAWN
Project No.:	19-133-0016

Site: 27-03, 27-09, 27-11 40th Avenue, and 39-44 28th Street, Long Island City, NY 11101

Figure: 5

Title: DETECTED CONCENTRATIONS IN SOIL VAPOR SAMPLES

TABLES

Table 1
Soil Sampling Summary Table for Volatile Organic Compounds
27-03, 27-09, and 27-11 40th Avenue and 39-44 28th Street
Long Island City, New York

Boring Location		B-1				B-1		B-2				B-3				B-4				B-5				B-7				B-8				B-A				B-B				TW-3				NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential
Sample ID		B-1 (0'-2')		B-1 (25'-27')		SOIL DUP		B-2 (0'-2')		B-2 (25'-27')		B-3 (0'-2')		B-3 (25'-27')		B-4 (0'-2')		B-4 (25'-27')		B-5 (0'-2')		B-5 (25'-27')		B-7 (0'-2')		B-7 (25'-27')		B-8 (0'-2')		B-8 (25'-27')		B-A (0'-2')		B-A (25'-27')		B-B (0'-2')		B-B (25'-27')		TW-3 (0'-2')		TW-3 (25'-27')			
York ID		19F0627-06		19F0624-01		19F0624-04		19F0624-02		19F0624-03		19F0855-01		19F0855-02		19F0627-02		19F0627-03		19F0855-03		19F0855-04		19F0855-05		19F0855-06		19F0855-07		19F0627-01		19F0762-01		19F0762-02		19F0627-04		19F0627-05		19F1084-01		19F1084-02			
Sampling Date		6/14/2019		6/15/2019		6/17/2019		6/17/2019		6/17/2019		6/20/2019		6/20/2019		6/13/2019		6/14/2019		6/20/2019		6/20/2019		6/20/2019		6/20/2019		6/20/2019		6/13/2019		6/18/2019		6/18/2019		6/14/2019		6/14/2019		6/26/2019		6/26/2019			
Client Matrix		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil			
Sample Depth		0'-2'		25'-27'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'			
Compound	CAS Number	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q		
Volatile Organics, 8260 - Comprehensive		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	mg/Kg
Dilution Factor		100		1		1		1		1		1		1		1		1		1		1		1		1		1		1		200		200		100		1		1		1			
1,1,1,2-Tetrachloroethane	630-20-6	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
1,1,1-Trichloroethane	71-55-6	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.68	100
1,1,2,2-Tetrachloroethane	79-34-5	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
1,1,2-Trichloroethane	79-00-5	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
1,1-Dichloroethane	75-34-3	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.27	26
1,1-Dichloroethylene	75-35-4	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.33	100
1,2,3-Trichlorobenzene	87-61-6	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
1,2,3-Trichloropropane	96-18-4	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
1,2,4-Trichlorobenzene	120-82-1	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
1,2,4-Trimethylbenzene	95-63-6	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	3.6	52
1,2-Dibromo-3-chloropropane	96-12-8	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
1,2-Dibromoethane	106-93-4	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
1,2-Dichlorobenzene	95-50-1	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	1.1	100
1,2-Dichloroethane	107-06-2	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.02	3.1
1,2-Dichloropropane	78-87-5	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
1,3,5-Trimethylbenzene	108-67-8	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	8.4	52
1,3-Dichlorobenzene	541-73-1	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	2.4	49
1,4-Dichlorobenzene	106-46-7	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	1.8	13
1,4-Dioxane	123-91-1	<0.059	U	<0.056	U	<0.057	U	<0.05	U	<0.063	U	<0.054	U	<0.054	U	<0.06	U	<0.061	U	<0.053	U	<0.044	U	<0.04	U	<0.055	U	<0.057	U	<0.06	U	<12	U	<0.061	U	<5.900	U	<0.056	U	<0.035	U	<0.036	U	0.1	13
2-Butanone	78-93-3	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.12	100
2-Hexanone	591-78-6	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
4-Methyl-2-pentanone	108-10-1	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	0.00770		<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Acetone	67-64-1	0.0400		0.0180		0.0290		0.0220		<0.0063	U	0.0300		0.0110		<0.006	U	<0.0061	U	0.0320		0.0320		0.0270		0.0280		0.0370		<0.006	U	<1.2	U	0.0210		<0.590	U	0.0110		<0.0035	U	<0.0036	U	0.05	100
Acrolein	107-02-8	<0.0059	U	<0.0056	U	<0.0057	U	<0.005	U	<0.0063	U	<0.0054	U	<0.0054	U	<0.006	U	<0.0061	U	<0.0053	U	<0.0044	U	<0.004	U	<0.0055	U	<0.0057	U	<0.006	U	<1.2	U	<0.0061	U	<0.590	U	<0.0056	U	<0.0035	U	<0.0036	U	~	~
Acrylonitrile	107-13-1	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Benzene	71-43-2	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.06	4.8
Bromochloromethane	74-97-5	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Bromodichloromethane	75-27-4	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Bromoform	75-25-2	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Bromomethane	74-83-9	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Carbon disulfide	75-15-0	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Carbon tetrachloride	56-23-5	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.76	2.4
Chlorobenzene	108-90-7	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	1.1	100
Chloroethane	75-00-3	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Chloroform	67-66-3	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	0.00190	J	0.37	49
Chloromethane	74-87-3	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
cis-1,2-Dichloroethylene	156-59-2	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.25	100
cis-1,3-Dichloropropylene	10061-01-5	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Cyclohexane	110-82-7	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Dibromochloromethane	124-48-1	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Dibromomethane	74-95-3	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Dichlorodifluoromethane	75-71-8	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Ethyl Benzene	100-41-4	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	1	41
Hexachlorobutadiene	87-68-3	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Isopropylbenzene	98-82-8	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Methyl acetate	79-20-9	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	0.00260	J	~	~
Methyl tert-butyl ether (MTBE)	1634-04-4	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.93	100
Methylcyclohexane	108-87-2	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Methylene chloride	75-09-2	<0.0059	U	<0.0056	U	<0.0057	U	<0.005	U	<0.0063	U	<0.0054	U	<0.0054	U	0.0120		0.00960	J	<0.0053	U	<0.0044	U	<0.004	U	<0.0055	U	<0.0057	U	0.0100	J	<1.2	U	<0.0061	U	<0.590	U	<0.0056	U	0.00630	J	0.00620	J	0.05	100
n-Butylbenzene	104-51-8	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	0.00300	J	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	12	100
n-Propylbenzene	103-65-1	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	3.9	100
o-Xylene	95-47-6	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
p- & m- Xylenes	179601-23-1	<0.0059	U	<0.0056	U	<0.0057	U	<0.005	U	<0.0063	U	<0.0054	U	<0.0054	U	<0.006	U	<0.0061	U	<0.0053	U	<0.0044	U	<0.004	U	<0.0055	U	<0.0057	U	<0.006	U	<1.2	U	<0.0061	U	<0.590	U	<0.0056	U	<0.0035	U	<0.0036	U	~	~
p-Isopropyltoluene	99-87-6	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
sec-Butylbenzene	135-98-8	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	11	100
Styrene	100-42-5	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
tert-Butyl alcohol (TBA)	75-65-0	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	0.00340	J	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
tert-Butylbenzene	98-06-6	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	5.9	100
Tetrachloroethylene	127-18-4	**5.600**	D	0.0610		0.0260		0.210		0.0540		0.00790		0.0120		0.0150		0.0230		0.0200		0.00370	J	0.00330	J	0.0310		0.0450		0.0110		**2.500**	D	**11**	D	**8.400**	D	0.0500		0.00210	J	0.00390		1.3	19
Toluene	108-88-3	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	0.00710		<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.7	100
trans-1,2-Dichloroethylene	156-60-5	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.19	100
trans-1,3-Dichloropropylene	10061-02-6	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
trans-1,4-dichloro-2-butene	110-57-6	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Trichloroethylene	79-01-6	0.00800		<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.47	21
Trichlorofluoromethane	75-69-4	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	~	~
Vinyl Chloride	75-01-4	<0.0029	U	<0.0028	U	<0.0028	U	<0.0025	U	<0.0032	U	<0.0027	U	<0.0027	U	<0.003	U	<0.0031	U	<0.0027	U	<0.0022	U	<0.002	U	<0.0027	U	<0.0029	U	<0.003	U	<0.58	U	<0.003	U	<0.300	U	<0.0028	U	<0.0017	U	<0.0018	U	0.02	0.9
Xylenes, Total	1330-20-7	<0.0088	U	<0.0085	U	<0.0085	U	<0.0075	U	<0.0095	U	<0.0081	U	<0.0081	U	<0.0091	U	<0.0092	U	<0.008	U	<0.0067	U	<0.006	U	<0.0082	U	<0.0086	U	<0.009	U	<1.8	U	<0.0091	U	<0.890	U	<0.0085	U	<0.0052	U	<0.0054	U	0.26	100

NOTES:

Exceeds Unrestricted Use SCOs

Exceeds Restricted Residential SCOs

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 estimate

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferenc

P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for anal

NT=this indicates the analyte was not a target for this sample

~=this indicates that no regulatory limit has been established for this analyt

Table 1
Soil Sampling Summary Table for Semi-Volatile Organic Compounds
27-03, 27-09, and 27-11 40th Avenue and 39-44 28th Street
Long Island City, New York

Boring Location		B-1				B-1		B-2				B-3			
Sample ID		B-1 (0'-2')		B-1 (25'-27')		SOIL DUP		B-2 (0'-2')		B-2 (25'-27')		B-3 (0'-2')		B-3 (25'-27')	
York ID		19F0627-06		19F0624-01		19F0624-04		19F0624-02		19F0624-03		19F0855-01		19F0855-02	
Sampling Date		6/14/2019		6/15/2019		6/17/2019		6/17/2019		6/17/2019		6/20/2019		6/20/2019	
Client Matrix		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Sample Depth		0'-2'		25'-27'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'	
Compound	CAS Number	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Semi-Volatiles, 8270 - Comprehensive		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor		10		2		2		2		2		2		2	
1,1-Biphenyl	92-52-4	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
1,2,4,5-Tetrachlorobenzene	95-94-3	<0.0979	U	<0.105	U	<0.101	U	<0.0975	U	<0.108	U	<0.0953	U	<0.0903	U
1,2,4-Trichlorobenzene	120-82-1	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
1,2-Dichlorobenzene	95-50-1	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
1,2-Diphenylhydrazine (as Azobenzene)	122-66-7	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
1,3-Dichlorobenzene	541-73-1	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
1,4-Dichlorobenzene	106-46-7	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
2,3,4,6-Tetrachlorophenol	58-90-2	<0.0979	U	<0.105	U	<0.101	U	<0.0975	U	<0.108	U	<0.0953	U	<0.0903	U
2,4,5-Trichlorophenol	95-95-4	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
2,4,6-Trichlorophenol	88-06-2	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
2,4-Dichlorophenol	120-83-2	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
2,4-Dimethylphenol	105-67-9	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
2,4-Dinitrophenol	51-28-5	<0.0979	U	<0.105	U	<0.101	U	<0.0975	U	<0.108	U	<0.0953	U	<0.0903	U
2,4-Dinitrotoluene	121-14-2	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
2,6-Dinitrotoluene	606-20-2	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
2-Chloronaphthalene	91-58-7	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
2-Chlorophenol	95-57-8	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
2-Methylnaphthalene	91-57-6	0.155	D	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	0.0754	JD	<0.0453	U
2-Methylphenol	95-48-7	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
2-Nitroaniline	88-74-4	<0.0979	U	<0.105	U	<0.101	U	<0.0975	U	<0.108	U	<0.0953	U	<0.0903	U
2-Nitrophenol	88-75-5	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
3- & 4-Methylphenols	65794-96-9	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
3,3-Dichlorobenzidine	91-94-1	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
3-Nitroaniline	99-09-2	<0.0979	U	<0.105	U	<0.101	U	<0.0975	U	<0.108	U	<0.0953	U	<0.0903	U
4,6-Dinitro-2-methylphenol	534-52-1	<0.0979	U	<0.105	U	<0.101	U	<0.0975	U	<0.108	U	<0.0953	U	<0.0903	U
4-Bromophenyl phenyl ether	101-55-3	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
4-Chloro-3-methylphenol	59-50-7	<0.049	U	<0.0527	U	<0.0507	U	0.118	D	<0.0541	U	<0.0478	U	<0.0453	U
4-Chloroaniline	106-47-8	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
4-Chlorophenyl phenyl ether	7005-72-3	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
4-Nitroaniline	100-01-6	<0.0979	U	<0.105	U	<0.101	U	<0.0975	U	<0.108	U	<0.0953	U	<0.0903	U
4-Nitrophenol	100-02-7	<0.0979	U	<0.105	U	<0.101	U	<0.0975	U	<0.108	U	<0.0953	U	<0.0903	U
Acenaphthene	83-32-9	0.258	D	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	0.176	D	<0.0453	U
Acenaphthylene	208-96-8	0.115	D	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	0.147	D	<0.0453	U
Acetophenone	98-86-2	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Aniline	62-53-3	<0.196	U	<0.21	U	<0.202	U	<0.195	U	<0.216	U	<0.191	U	<0.181	U
Anthracene	120-12-7	0.722	D	<0.0527	U	<0.0507	U	0.0538	JD	<0.0541	U	0.477	D	<0.0453	U
Atrazine	1912-24-9	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Benzaldehyde	100-52-7	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Benzidine	92-87-5	<0.196	U	<0.21	U	<0.202	U	<0.195	U	<0.216	U	<0.191	U	<0.181	U
Benzo(a)anthracene	56-55-3	**1.700**	D	<0.0527	U	<0.0507	U	0.221	D	<0.0541	U	**1.130**	D	<0.0453	U
Benzo(a)pyrene	50-32-8	**1.400**	D	<0.0527	U	<0.0507	U	0.234	D	<0.0541	U	**1.050**	D	<0.0453	U
Benzo(b)fluoranthene	205-99-2	**1.370**	D	<0.0527	U	<0.0507	U	0.225	D	<0.0541	U	0.955	D	<0.0453	U
Benzo(g,h,i)perylene	191-24-2	0.696	D	<0.0527	U	<0.0507	U	0.152	D	<0.0541	U	0.653	D	<0.0453	U
Benzo(k)fluoranthene	207-08-9	**1.200**	D	<0.0527	U	<0.0507	U	0.219	D	<0.0541	U	0.790	D	<0.0453	U
Benzoic acid	65-85-0	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Benzyl alcohol	100-51-6	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Benzyl butyl phthalate	85-68-7	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Bis(2-chloroethoxy)methane	111-91-1	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Bis(2-chloroethyl)ether	111-44-4	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Bis(2-chloroisopropyl)ether	108-60-1	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Bis(2-ethylhexyl)phthalate	117-81-7	<0.049	U	<0.0527	U	<0.0507	U	0.244	D	<0.0541	U	<0.0478	U	<0.0453	U
Caprolactam	105-60-2	<0.0979	U	<0.105	U	<0.101	U	<0.0975	U	<0.108	U	<0.0953	U	<0.0903	U
Carbazole	86-74-8	0.307	D	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	0.216	D	<0.0453	U
Chrysene	218-01-9	**1.560**	D	<0.0527	U	<0.0507	U	0.245	D	<0.0541	U	**1.040**	D	<0.0453	U
Dibenzo(a,h)anthracene	53-70-3	0.268	D	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	0.219	D	<0.0453	U
Dibenzofuran	132-64-9	0.293	D	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	0.170	D	<0.0453	U
Diethyl phthalate	84-66-2	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Dimethyl phthalate	131-11-3	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Di-n-butyl phthalate	84-74-2	<0.049	U	<0.0527	U	<0.0507	U	0.335	D	<0.0541	U	<0.0478	U	<0.0453	U
Di-n-octyl phthalate	117-84-0	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Fluoranthene	206-44-0	4.220	D	<0.0527	U	<0.0507	U	0.425	D	<0.0541	U	2.500	DE	<0.0453	U
Fluorene	86-73-7	0.265	D	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	0.177	D	<0.0453	U
Hexachlorobenzene	118-74-1	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Hexachlorobutadiene	87-68-3	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Hexachlorocyclopentadiene	77-47-4	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Hexachloroethane	67-72-1	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Indeno(1,2,3-cd)pyrene	193-39-5	**0.838**	D	<0.0527	U	<0.0507	U	0.136	D	<0.0541	U	**0.595**	D	<0.0453	U
Isophorone	78-59-1	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Naphthalene	91-20-3	0.410	D	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	0.119	D	<0.0453	U
Nitrobenzene	98-95-3	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
N-Nitrosodimethylamine	62-75-9	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
N-nitroso-di-n-propylamine	621-64-7	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
N-Nitrosodiphenylamine	86-30-6	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Pentachlorophenol	87-86-5	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Phenanthrene	85-01-8	4.350	D	<0.0527	U	<0.0507	U	0.143	D	<0.0541	U	2.180	DE	<0.0453	U
Phenol	108-95-2	<0.049	U	<0.0527	U	<0.0507	U	<0.0488	U	<0.0541	U	<0.0478	U	<0.0453	U
Pyrene	129-00-0	3.140	D	<0.0527	U	<0.0507	U	0.385	D	<0.0541	U	2.170	DE	<0.0453	U

Boring Location	B-4				B-5				B-7				B-8			
Sample ID	B-4 (0'-2')		B-4 (25'-27')		B-5 (0'-2')		B-5 (25'-27')		B-7 (0'-2')		B-7 (25'-27')		B-8 (0'-2')		B-8 (25'-27')	
York ID	19F0627-02		19F0627-03		19F0855-03		19F0855-04		19F0855-05		19F0855-06		19F0855-07		19F0627-01	
Sampling Date	6/13/2019		6/14/2019		6/20/2019		6/20/2019		6/20/2019		6/20/2019		6/20/2019		6/13/2019	
Client Matrix	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Sample Depth	0'-2'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'	
Compound	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Semi-Volatiles, 8270 - Comprehensive	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor	10		2		2		2		2		2		2		2	
1,1-Biphenyl	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
1,2,4,5-Tetrachlorobenzene	<0.1	U	<0.102	U	<0.104	U	<0.0902	U	<0.0945	U	<0.0975	U	<0.1	U	<0.0999	U
1,2,4-Trichlorobenzene	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
1,2-Dichlorobenzene	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
1,2-Diphenylhydrazine (as Azobenzene)	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
1,3-Dichlorobenzene	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
1,4-Dichlorobenzene	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
2,3,4,6-Tetrachlorophenol	<0.1	U	<0.102	U	<0.104	U	<0.0902	U	<0.0945	U	<0.0975	U	<0.1	U	<0.0999	U
2,4,5-Trichlorophenol	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
2,4,6-Trichlorophenol	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
2,4-Dichlorophenol	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
2,4-Dimethylphenol	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
2,4-Dinitrophenol	<0.1	U	<0.102	U	<0.104	U	<0.0902	U	<0.0945	U	<0.0975	U	<0.1	U	<0.0999	U
2,4-Dinitrotoluene	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
2,6-Dinitrotoluene	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
2-Chloronaphthalene	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
2-Chlorophenol	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
2-Methylnaphthalene	0.0841	JD	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
2-Methylphenol	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
2-Nitroaniline	<0.1	U	<0.102	U	<0.104	U	<0.0902	U	<0.0945	U	<0.0975	U	<0.1	U	<0.0999	U
2-Nitrophenol	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
3- & 4-Methylphenols	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
3,3-Dichlorobenzidine	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
3-Nitroaniline	<0.1	U	<0.102	U	<0.104	U	<0.0902	U	<0.0945	U	<0.0975	U	<0.1	U	<0.0999	U
4,6-Dinitro-2-methylphenol	<0.1	U	<0.102	U	<0.104	U	<0.0902	U	<0.0945	U	<0.0975	U	<0.1	U	<0.0999	U
4-Bromophenyl phenyl ether	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
4-Chloro-3-methylphenol	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
4-Chloroaniline	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
4-Chlorophenyl phenyl ether	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
4-Nitroaniline	<0.1	U	<0.102	U	<0.104	U	<0.0902	U	<0.0945	U	<0.0975	U	<0.1	U	<0.0999	U
4-Nitrophenol	<0.1	U	<0.102	U	<0.104	U	<0.0902	U	<0.0945	U	<0.0975	U	<0.1	U	<0.0999	U
Acenaphthene	0.100	D	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Acenaphthylene	0.299	D	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Acetophenone	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Aniline	<0.201	U	<0.203	U	<0.207	U	<0.181	U	<0.189	U	<0.195	U	<0.201	U	<0.2	U
Anthracene	0.563	D	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Atrazine	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Benzaldehyde	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Benzidine	<0.201	U	<0.203	U	<0.207	U	<0.181	U	<0.189	U	<0.195	U	<0.201	U	<0.2	U
Benzo(a)anthracene	**2.020**	D	<0.0509	U	0.141	D	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Benzo(a)pyrene	**1.660**	D	<0.0509	U	0.157	D	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Benzo(b)fluoranthene	**1.520**	D	<0.0509	U	0.134	D	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Benzo(g,h,i)perylene	0.890	D	<0.0509	U	0.135	D	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Benzo(k)fluoranthene	**1.380**	D	<0.0509	U	0.119	D	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Benzoic acid	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Benzyl alcohol	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Benzyl butyl phthalate	<0.0502	U	<0.0509	U	0.0654	JD	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Bis(2-chloroethoxy)methane	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Bis(2-chloroethyl)ether	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Bis(2-chloroisopropyl)ether	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Bis(2-ethylhexyl)phthalate	0.0785	JD	<0.0509	U	0.115	D	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Caprolactam	<0.1	U	<0.102	U	<0.104	U	<0.0902	U	<0.0945	U	<0.0975	U	<0.1	U	<0.0999	U
Carbazole	0.235	D	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Chrysene	**1.840**	D	<0.0509	U	0.142	D	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Dibenzo(a,h)anthracene	**0.372**	D	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Dibenzofuran	0.206	D	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Diethyl phthalate	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Dimethyl phthalate	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Di-n-butyl phthalate	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Di-n-octyl phthalate	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Fluoranthene	4.420	D	<0.0509	U	0.234	D	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Fluorene	0.193	D	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Hexachlorobenzene	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Hexachlorobutadiene	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Hexachlorocyclopentadiene	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Hexachloroethane	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Indeno(1,2,3-cd)pyrene	**1.110**	D	<0.0509	U	0.146	D	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Isophorone	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Naphthalene	0.279	D	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Nitrobenzene	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
N-Nitrosodimethylamine	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
N-nitroso-di-n-propylamine	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
N-Nitrosodiphenylamine	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Pentachlorophenol	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Phenanthrene	3.280	D	<0.0509	U	0.0952	JD	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Phenol	<0.0502	U	<0.0509	U	<0.0519	U	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U
Pyrene	2.870	D	<0.0509	U	0.227	D	<0.0452	U	<0.0474	U	<0.0488	U	<0.0503	U	<0.0501	U

Boring Location	B-A				B-B				TW-3				NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential
Sample ID	B-A (0'-2')		B-A (25'-27')		B-B (0'-2')		B-B (25'-27')		TW-3 (0'-2')		TW-3 (25'-27')			
York ID	19F0762-01		19F0762-02		19F0627-04		19F0627-05		19F1084-01		19F1084-02			
Sampling Date	6/18/2019		6/18/2019		6/14/2019		6/14/2019		6/26/2019		6/26/2019			
Client Matrix	Soil		Soil		Soil		Soil		Soil		Soil			
Sample Depth	0'-2'		25'-27'		0'-2'		25'-27'		0'-2'		25'-27'			
Compound	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q		
Semi-Volatiles, 8270 - Comprehensive	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	mg/Kg
Dilution Factor	2		2		10		2		2		2			
1,1-Biphenyl	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
1,2,4,5-Tetrachlorobenzene	<0.1	U	<0.0843	U	<0.1	U	<0.0864	U	<0.0987	U	<0.101	U	~	~
1,2,4-Trichlorobenzene	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
1,2-Dichlorobenzene	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	1.1	100
1,2-Diphenylhydrazine (as Azobenzene)	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
1,3-Dichlorobenzene	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	2.4	49
1,4-Dichlorobenzene	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	1.8	13
2,3,4,6-Tetrachlorophenol	<0.1	U	<0.0843	U	<0.1	U	<0.0864	U	<0.0987	U	<0.101	U	~	~
2,4,5-Trichlorophenol	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
2,4,6-Trichlorophenol	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
2,4-Dichlorophenol	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
2,4-Dimethylphenol	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
2,4-Dinitrophenol	<0.1	U	<0.0843	U	<0.1	U	<0.0864	U	<0.0987	U	<0.101	U	~	~
2,4-Dinitrotoluene	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
2,6-Dinitrotoluene	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
2-Chloronaphthalene	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
2-Chlorophenol	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
2-Methylnaphthalene	<0.0501	U	0.0613	JD	0.0592	JD	<0.0433	U	<0.0495	U	<0.0509	U	~	~
2-Methylphenol	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	0.33	100
2-Nitroaniline	<0.1	U	<0.0843	U	<0.1	U	<0.0864	U	<0.0987	U	<0.101	U	~	~
2-Nitrophenol	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
3- & 4-Methylphenols	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
3,3-Dichlorobenzidine	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
3-Nitroaniline	<0.1	U	<0.0843	U	<0.1	U	<0.0864	U	<0.0987	U	<0.101	U	~	~
4,6-Dinitro-2-methylphenol	<0.1	U	<0.0843	U	<0.1	U	<0.0864	U	<0.0987	U	<0.101	U	~	~
4-Bromophenyl phenyl ether	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
4-Chloro-3-methylphenol	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
4-Chloroaniline	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
4-Chlorophenyl phenyl ether	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
4-Nitroaniline	<0.1	U	<0.0843	U	<0.1	U	<0.0864	U	<0.0987	U	<0.101	U	~	~
4-Nitrophenol	<0.1	U	<0.0843	U	<0.1	U	<0.0864	U	<0.0987	U	<0.101	U	~	~
Acenaphthene	<0.0501	U	<0.0422	U	0.275	D	<0.0433	U	0.0947	JD	<0.0509	U	20	100
Acenaphthylene	<0.0501	U	<0.0422	U	0.144	D	<0.0433	U	0.0678	JD	<0.0509	U	100	100
Acetophenone	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Aniline	<0.2	U	<0.169	U	<0.2	U	<0.173	U	<0.198	U	<0.203	U	~	~
Anthracene	<0.0501	U	0.121	D	0.735	D	<0.0433	U	0.248	D	<0.0509	U	100	100
Atrazine	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Benzaldehyde	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Benzidine	<0.2	U	<0.169	U	<0.2	U	<0.173	U	<0.198	U	<0.203	U	~	~
Benzo(a)anthracene	<0.0501	U	<0.0422	U	**2.480**	D	<0.0433	U	0.685	D	<0.0509	U	1	1
Benzo(a)pyrene	<0.0501	U	<0.0422	U	**2.220**	D	<0.0433	U	0.682	D	<0.0509	U	1	1
Benzo(b)fluoranthene	<0.0501	U	<0.0422	U	**1.780**	D	<0.0433	U	0.529	D	<0.0509	U	1	1
Benzo(g,h,i)perylene	<0.0501	U	<0.0422	U	1.630	D	<0.0433	U	0.384	D	<0.0509	U	100	100
Benzo(k)fluoranthene	<0.0501	U	<0.0422	U	**1.640**	D	<0.0433	U	0.551	D	<0.0509	U	0.8	3.9
Benzoic acid	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Benzyl alcohol	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Benzyl butyl phthalate	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Bis(2-chloroethoxy)methane	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Bis(2-chloroethyl)ether	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Bis(2-chloroisopropyl)ether	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Bis(2-ethylhexyl)phthalate	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Caprolactam	<0.1	U	<0.0843	U	<0.1	U	<0.0864	U	<0.0987	U	<0.101	U	~	~
Carbazole	<0.0501	U	<0.0422	U	0.322	D	<0.0433	U	0.110	D	<0.0509	U	~	~
Chrysene	<0.0501	U	<0.0422	U	**2.270**	D	<0.0433	U	0.667	D	<0.0509	U	1	3.9
Dibenzo(a,h)anthracene	<0.0501	U	<0.0422	U	**0.522**	D	<0.0433	U	0.127	D	<0.0509	U	0.33	0.33
Dibenzofuran	<0.0501	U	<0.0422	U	0.130	D	<0.0433	U	0.0615	JD	<0.0509	U	7	59
Diethyl phthalate	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Dimethyl phthalate	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Di-n-butyl phthalate	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Di-n-octyl phthalate	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Fluoranthene	<0.0501	U	0.0822	JD	5.450	D	<0.0433	U	1.690	D	<0.0509	U	100	100
Fluorene	<0.0501	U	<0.0422	U	0.206	D	<0.0433	U	0.0813	JD	<0.0509	U	30	100
Hexachlorobenzene	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	0.33	1.2
Hexachlorobutadiene	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Hexachlorocyclopentadiene	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Hexachloroethane	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Indeno(1,2,3-cd)pyrene	<0.0501	U	<0.0422	U	**1.780**	D	<0.0433	U	0.344	D	<0.0509	U	0.5	0.5
Isophorone	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Naphthalene	<0.0501	U	<0.0422	U	0.0776	JD	<0.0433	U	<0.0495	U	<0.0509	U	12	100
Nitrobenzene	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
N-Nitrosodimethylamine	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
N-nitroso-di-n-propylamine	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
N-Nitrosodiphenylamine	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	~	~
Pentachlorophenol	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	0.8	6.7
Phenanthrene	<0.0501	U	0.459	D	3.730	D	<0.0433	U	1.300	D	<0.0509	U	100	100
Phenol	<0.0501	U	<0.0422	U	<0.0502	U	<0.0433	U	<0.0495	U	<0.0509	U	0.33	100
Pyrene	<0.0501	U	0.303	D	4.280	D	<0.0433	U	1.450	D	<0.0509	U	100	100

NOTES:
Exceeds Unrestricted Use SCOs
Exveeds Restricted Residential SCO
Q is the Qualifier Column with definitions as follows
D=result is from an analysis that required a dilutio
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimate
U=analyte not detected at or above the level indicate
B=analyte found in the analysis batch blanl
E=result is estimated and cannot be accurately reported due to levels encountered or interference
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analy
NT=this indicates the analyte was not a target for this sampl
~=this indicates that no regulatory limit has been established for this analy

Table 1
Soil Sampling Summary Table for Metals
27-03, 27-09, and 27-11 40th Avenue and 39-44 28th Street
Long Island City, New York

Boring Location		B-1		B-1	B-2		B-3		B-4		B-5		B-7		B-8		B-A		B-B		TW-3		NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential
Sample ID		B-1 (0'-2')	B-1 (25'-27')	SOIL DUP	B-2 (0'-2')	B-2 (25'-27')	B-3 (0'-2')	B-3 (25'-27')	B-4 (0'-2')	B-4 (25'-27')	B-5 (0'-2')	B-5 (25'-27')	B-7 (0'-2')	B-7 (25'-27')	B-8 (0'-2')	B-8 (25'-27')	B-A (0'-2')	B-A (25'-27')	B-B (0'-2')	B-B (25'-27')	TW-3 (0'-2')	TW-3 (25'-27')		
York ID		19F0627-06	19F0624-01		19F0624-02	19F0624-03	19F0855-01	19F0855-02	19F0627-02	19F0627-03	19F0855-03	19F0855-04	19F0855-05	19F0855-06	19F0855-07	19F0627-01	19F0762-01	19F0762-02	19F0627-04	19F0627-05	19F1084-01	19F1084-02		
Sampling Date		6/14/2019	6/15/2019	6/17/2019	6/17/2019	6/17/2019	6/20/2019	6/20/2019	6/13/2019	6/14/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/13/2019	6/18/2019	6/18/2019	6/14/2019	6/14/2019	6/26/2019	6/26/2019		
Client Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Depth		0'-2'	25'-27'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'		
Compound	**CAS Number**	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q		
Metals, Target Analyte		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Aluminum	7429-90-5	11,100	5,110	3,730	16,900	6,330	10,800	4,050	13,500	5,560	12,900	4,040	16,200	3,880	13,500	5,090	20,600	7,580	12,200	5,280	9,700	4,180	~	~
Antimony	7440-36-0	<2.96 U	<3.18 U	<3.04 U	<2.95 U	<3.27 U	<2.89 U	<2.72 U	<3.62 U	<3.07 U	<3.13 U	<2.71 U	<2.85 U	<2.96 U	<3.03 U	<3.01 U	<3.62 U	<2.59 U	<3.03 U	<2.63 U	<2.99 U	<3.07 U	~	~
Arsenic	7440-38-2	7.610	<1.91 U	2.400	3.360	<1.96 U	6.960	<1.63 U	2.780	<1.84 U	2.110	<1.63 U	2.350	<1.78 U	3.150	<1.81 U	3.700	<1.56 U	12.300	<1.58 U	<1.79 U	<1.84 U	13	16
Barium	7440-39-3	265	65.700	42.400	124	35.600	178	23.200	89.500	31.700	252	23.800	75.300	19.600	80.400	28.900	43.500	44.700	**388**	33	81.500	20.700	350	400
Beryllium	7440-41-7	<0.059 U	<0.064 U	<0.061 U	<0.059 U	<0.065 U	<0.058 U	<0.054 U	<0.06 U	<0.061 U	<0.063 U	<0.054 U	<0.057 U	<0.059 U	<0.061 U	<0.06 U	<0.06 U	<0.052 U	<0.061 U	<0.053 U	<0.06 U	<0.061 U	7.2	72
Cadmium	7440-43-9	0.956	<0.382 U	<0.365 U	<0.354 U	<0.392 U	<0.346 U	<0.326 U	<0.363 U	<0.368 U	0.965	<0.326 U	<0.342 U	<0.355 U	<0.363 U	<0.362 U	<0.362 U	<0.311 U	1.200	<0.315 U	<0.359 U	<0.369 U	2.5	4.3
Calcium	7440-70-2	3.380	12.200	17.700	1.740	3.040	13.500	1.750	4.920	2.380	2.960	11.600	2.250	2.590	610	2.200	1.160	1.170	3.280	2.380	9.860	3.990	~	~
Chromium	7440-47-3	18.700	9.510	6.810	21.900	13.200	16.300	9.380	17.400	11.800	23	8.600	27.700	8.520	17.200	10.700	27.600	21.900	24.500	13.100	19.200	11	~	~
Cobalt	7440-48-4	6.970	4.459	4.430	9.950	7.640	6.860	4.810	7.240	6.180	8.610	4.920	13.200	4.830	7.610	5.360	9.260	6.510	7.640	5.820	6.580	5.080	~	~
Copper	7440-50-8	**76.700**	12.800	13.500	13.600	17.300	41.800	9.970	24.700	14.300	**70.500**	11.500	23	10.500	20.100	12.400	16.800	21.400	**160**	14.300	28.600	11.600	50	270
Iron	7439-89-6	16,700	9,190	7,580	21,700	12,800	17,200	7,510	17,400	10,600	20,600	7,610	23,500	7,190	16,500	9,700	29,600	14,800	18,400	9,940	14,000	7,780	~	~
Lead	7439-92-1	**710**	16.800	2.900	26.300	3.930	**419**	2.710	60.400	2.920	**355**	2.310	20.100	1.950	38.400	2.850	39.800	5.740	**787**	2.920	**149**	3.250	63	400
Magnesium	7439-95-4	2,120	4,320	7,340	2,800	4,220	2,270	2,660	3,010	3,240	2,680	8,120	4,140	2,990	3,300	2,650	3,320	3,750	2,370	3,230	2,820	3,380	~	~
Manganese	7439-96-5	626	399	212	415	277	512	227	410	287	674	200	740	193	450	260	197	300	268	262	346	215	1600	2000
Nickel	7440-02-0	16.800	10.500	9.770	16.300	15.800	12.900	10.300	13.300	14.200	24.100	10.600	24.800	10.300	13.900	12.500	18.900	15.500	20.500	13.400	15.500	10.500	30	310
Potassium	7440-09-7	594	798	1,020	904	1,890	620	582	720	931	488	798	1,100	613	701	864	1,130	1,500	814	876	764	692	~	~
Selenium	7782-49-2	<2.96 U	<3.18 U	**5.360**	<2.95 U	<3.27 U	<2.89 U	<2.72 U	<3.62 U	<3.07 U	<3.13 U	3.680	<2.85 U	<2.96 U	<3.03 U	<3.01 U	<3.62 U	<2.59 U	<3.03 U	<2.63 U	<2.99 U	<3.07 U	3.9	180
Silver	7440-22-4	<0.593 U	<0.636 U	<0.608 U	<0.59 U	<0.653 U	<0.577 U	<0.543 U	<0.605 U	<0.613 U	<0.625 U	<0.543 U	<0.57 U	<0.592 U	<0.605 U	<0.603 U	<0.603 U	<0.519 U	<0.606 U	<0.525 U	<0.598 U	<0.615 U	2	180
Sodium	7440-23-5	130	540	194	205	354	123	226	194	212	142	178	275	197	87.900	192	423	140	417	181	230	212	~	~
Thallium	7440-28-0	<2.96 U	<3.18 U	<3.04 U	<2.95 U	<3.27 U	<2.89 U	<2.72 U	<3.62 U	<3.07 U	<3.13 U	<2.71 U	<2.85 U	<2.96 U	<3.03 U	<3.01 U	<3.62 U	<2.59 U	<3.03 U	<2.63 U	<2.99 U	<3.07 U	~	~
Vanadium	7440-62-2	24.100	10.800	9.190	31.500	18.200	21	10.600	23.600	15.500	32.400	11.200	33.500	10.600	23.500	13.600	43.600	23	30.300	14.900	20.600	11.700	~	~
Zinc	7440-66-6	**415**	29.900	20.200	60.200	36.400	**344**	18.200	67.500	26.900	**288**	19.700	44.300	18.300	64.400	21.500	**222**	44	**444**	28.400	109	21	109	10000
Mercury by 7473		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Mercury	7439-97-6	**0.375**	<0.0362 U	<0.0365 U	0.0973	<0.0392 U	**0.357**	<0.0326 U	**0.492**	<0.0368 U	**0.298**	<0.0326 U	0.0633	<0.0355 U	0.0796	<0.0362 U	<0.0362 U	<0.0311 U	**0.684**	<0.0315 U	**0.466**	<0.0369 U	0.18	0.81

NOTES:
Exceeds Unrestricted Use SCOs
Exceeds Restricted Residential SCOs
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
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Soil Sampling Summary Table for Pesticides and PCBs
27-03, 27-09, and 27-11 40th Avenue and 39-44 28th Street
Long Island City, New York

Boring Location		B-1		B-1	B-2		B-3		B-4		B-5		B-7		B-8		B-A		B-B		TW-3		NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential
Sample ID		B-1 (0'-2') 19F0627-06	B-1 (25'-27') 19F0624-01	SOIL DUP 19F0624-04	B-2 (0'-2') 19F0624-02	B-2 (23'-27') 19F0624-03	B-3 (0'-2') 19F0855-01	B-3 (25'-27') 19F0855-02	B-4 (0'-2') 19F0627-02	B-4 (25'-27') 19F0627-03	B-5 (0'-2') 19F0855-03	B-5 (25'-27') 19F0855-04	B-7 (0'-2') 19F0855-05	B-7 (25'-27') 19F0855-06	B-8 (0'-2') 19F0855-07	B-8 (23'-27') 19F0627-01	B-A (0'-2') 19F0762-01	B-A (25'-27') 19F0762-02	B-B (0'-2') 19F0627-04	B-B (25'-27') 19F0627-05	TW-3 (0'-2') 19F1084-01	TW-3 (25'-27') 19F1084-02		
York ID																								
Sampling Date		6/14/2019	6/15/2019	6/17/2019	6/17/2019	6/17/2019	6/20/2019	6/20/2019	6/13/2019	6/14/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/13/2019	6/18/2019	6/18/2019	6/14/2019	6/14/2019	6/26/2019	6/26/2019		
Client Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Depth		0'-2'	25'-27'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'	0'-2'	25'-27'		
Compound	CAS Number	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q	Result Q		
Pesticides, 8081 target list		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
4,4'-DDD	72-54-8	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.0033	13
4,4'-DDE	72-55-9	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.0033	8.9
4,4'-DDT	50-29-3	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	0.0527 D	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.0033	7.9
Aldrin	309-00-2	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.005	0.097
alpha-BHC	319-84-6	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.02	0.48
alpha-Chlordane	5103-71-9	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.094	4.2
beta-BHC	319-85-7	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.036	0.36
Chlordane, total	57-74-9	<0.0388 U	<0.0419 U	<0.0397 U	<0.0388 U	<0.0427 U	<0.038 U	<0.0356 U	<0.0398 U	<0.0402 U	<0.0409 U	<0.0353 U	<0.0375 U	<0.0386 U	<0.0394 U	<0.0397 U	<0.0396 U	<0.034 U	<0.0399 U	<0.0344 U	<0.0392 U	<0.0402 U	~	~
delta-BHC	319-86-8	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.04	100
Dieldrin	60-57-1	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.005	0.2
Endosulfan I	959-98-8	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	2.4	24
Endosulfan II	33213-65-9	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	2.4	24
Endosulfan sulfate	1031-07-8	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	2.4	24
Endrin	72-20-8	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.014	11
Endrin aldehyde	7421-93-4	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	~	~
Endrin ketone	53494-70-5	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	~	~
gamma-BHC (Lindane)	58-89-9	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.1	1.3
gamma-Chlordane	5566-34-7	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	~	~
Heptachlor	76-44-8	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	0.042	2.1
Heptachlor epoxide	1024-57-3	<0.00194 U	<0.00209 U	<0.00199 U	<0.00194 U	<0.00214 U	<0.0019 U	<0.00178 U	<0.00199 U	<0.00201 U	<0.00204 U	<0.00177 U	<0.00188 U	<0.00193 U	<0.00197 U	<0.00198 U	<0.00198 U	<0.0017 U	<0.00199 U	<0.00172 U	<0.00196 U	<0.00201 U	~	~
Methoxychlor	72-43-5	<0.00971 U	<0.0105 U	<0.00994 U	<0.00971 U	<0.0107 U	<0.00949 U	<0.00891 U	<0.00994 U	<0.01 U	<0.0102 U	<0.00883 U	<0.00938 U	<0.00964 U	<0.00985 U	<0.00991 U	<0.00989 U	<0.0085 U	<0.00997 U	<0.00861 U	<0.00979 U	<0.01 U	~	~
Toxaphene	8001-35-2	<0.0983 U	<0.106 U	<0.101 U	<0.0982 U	<0.108 U	<0.0961 U	<0.0902 U	<0.101 U	<0.102 U	<0.103 U	<0.0894 U	<0.0949 U	<0.0976 U	<0.0997 U	<0.1 U	<0.1 U	<0.0861 U	<0.101 U	<0.0871 U	<0.0991 U	<0.102 U	~	~
Polychlorinated Biphenyls (PCB)		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Aroclor 1016	12674-11-2	<0.0196 U	<0.0211 U	<0.0201 U	<0.0196 U	<0.0216 U	<0.0192 U	<0.018 U	<0.0201 U	<0.0203 U	<0.0206 U	<0.0178 U	<0.0189 U	<0.0195 U	<0.0199 U	<0.02 U	<0.02 U	<0.0172 U	<0.0201 U	<0.0174 U	<0.0198 U	<0.0203 U	~	~
Aroclor 1221	11104-28-2	<0.0196 U	<0.0211 U	<0.0201 U	<0.0196 U	<0.0216 U	<0.0192 U	<0.018 U	<0.0201 U	<0.0203 U	<0.0206 U	<0.0178 U	<0.0189 U	<0.0195 U	<0.0199 U	<0.02 U	<0.02 U	<0.0172 U	<0.0201 U	<0.0174 U	<0.0198 U	<0.0203 U	~	~
Aroclor 1232	11141-16-5	<0.0196 U	<0.0211 U	<0.0201 U	<0.0196 U	<0.0216 U	<0.0192 U	<0.018 U	<0.0201 U	<0.0203 U	<0.0206 U	<0.0178 U	<0.0189 U	<0.0195 U	<0.0199 U	<0.02 U	<0.02 U	<0.0172 U	<0.0201 U	<0.0174 U	<0.0198 U	<0.0203 U	~	~
Aroclor 1242	53469-21-9	<0.0196 U	<0.0211 U	<0.0201 U	<0.0196 U	<0.0216 U	<0.0192 U	<0.018 U	<0.0201 U	<0.0203 U	<0.0206 U	<0.0178 U	<0.0189 U	<0.0195 U	<0.0199 U	<0.02 U	<0.02 U	<0.0172 U	<0.0201 U	<0.0174 U	<0.0198 U	<0.0203 U	~	~
Aroclor 1248	12672-29-6	<0.0196 U	<0.0211 U	<0.0201 U	<0.0196 U	<0.0216 U	<0.0192 U	<0.018 U	<0.0201 U	<0.0203 U	<0.0206 U	<0.0178 U	<0.0189 U	<0.0195 U	<0.0199 U	<0.02 U	<0.02 U	<0.0172 U	<0.0201 U	<0.0174 U	<0.0198 U	<0.0203 U	~	~
Aroclor 1254	11097-69-1	<0.0196 U	<0.0211 U	<0.0201 U	<0.0196 U	<0.0216 U	<0.0192 U	<0.018 U	<0.0201 U	<0.0203 U	<0.0206 U	<0.0178 U	<0.0189 U	<0.0195 U	<0.0199 U	<0.02 U	<0.02 U	<0.0172 U	<0.0201 U	<0.0174 U	<0.0198 U	<0.0203 U	~	~
Aroclor 1260	11096-82-5	<0.0196 U	<0.0211 U	<0.0201 U	<0.0196 U	<0.0216 U	<0.0192 U	<0.018 U	<0.0201 U	<0.0203 U	<0.0206 U	<0.0178 U	<0.0189 U	<0.0195 U	<0.0199 U	<0.02 U	<0.02 U	<0.0172 U	<0.0201 U	<0.0174 U	<0.0198 U	<0.0203 U	~	~
Total PCBs	1336-36-3	<0.0196 U	<0.0211 U	<0.0201 U	<0.0196 U	<0.0216 U	<0.0192 U	<0.018 U	<0.0201 U	<0.0203 U	<0.0206 U	<0.0178 U	<0.0189 U	<0.0195 U	<0.0199 U	<0.02 U	<0.02 U	<0.0172 U	<0.0201 U	<0.0174 U	<0.0198 U	<0.0203 U	0.1	1

NOTES:

Exceeds Unrestricted Use SCOs

Exceeds Restricted Residential SCOs

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

B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis

NT=this indicates the analyte was not a target for this sample

~=this indicates that no regulatory limit has been established for this analyte

Table 2
Groundwater Sampling Summary Table for Volatile Organic Compounds
27-03, 27-09, and 27-11 40th Avenue and 39-44 28th Street
Long Island City, New York

Sample ID		TW-4		TW-5		GW-DUP		Trip Blank		NYSDEC TOGS Standards and Guidance Values - GA
York ID		19G0248-01		19G0248-02		19G0248-03		19G0248-06		
Sampling Date		7/1/2019		7/1/2019		7/1/2019		7/1/2019		
Client Matrix		Groundwater		Groundwater		Groundwater		Groundwater		
Compound	**CAS Number**	Result	Q	Result	Q	Result	Q	Result	Q	
Volatile Organics, 8260 - Comprehensive		ug/L		ug/L		ug/L		ug/L		ug/L
Dilution Factor		20		20		20		1		
1,1,1,2-Tetrachloroethane	630-20-6	<4	U	<4	U	<4	U	<0.2	U	5
1,1,1-Trichloroethane	71-55-6	<4	U	<4	U	<4	U	<0.2	U	5
1,1,2,2-Tetrachloroethane	79-34-5	<4	U	<4	U	<4	U	<0.2	U	5
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	<4	U	<4	U	<4	U	<0.2	U	5
1,1,2-Trichloroethane	79-00-5	<4	U	<4	U	<4	U	<0.2	U	1
1,1-Dichloroethane	75-34-3	<4	U	<4	U	<4	U	<0.2	U	5
1,1-Dichloroethylene	75-35-4	<4	U	<4	U	<4	U	<0.2	U	5
1,2,3-Trichlorobenzene	87-61-6	<4	U	<4	U	<4	U	<0.2	U	5
1,2,3-Trichloropropane	96-18-4	<4	U	<4	U	<4	U	<0.2	U	0.04
1,2,4-Trichlorobenzene	120-82-1	<4	U	<4	U	<4	U	<0.2	U	5
1,2,4-Trimethylbenzene	95-63-6	<4	U	<4	U	<4	U	<0.2	U	5
1,2-Dibromo-3-chloropropane	96-12-8	<4	U	<4	U	<4	U	<0.2	U	0.04
1,2-Dibromoethane	106-93-4	<4	U	<4	U	<4	U	<0.2	U	0.0006
1,2-Dichlorobenzene	95-50-1	<4	U	<4	U	<4	U	<0.2	U	3
1,2-Dichloroethane	107-06-2	<4	U	<4	U	<4	U	<0.2	U	0.6
1,2-Dichloropropane	78-87-5	<4	U	<4	U	<4	U	<0.2	U	1
1,3,5-Trimethylbenzene	108-67-8	<4	U	<4	U	<4	U	<0.2	U	5
1,3-Dichlorobenzene	541-73-1	<4	U	<4	U	<4	U	<0.2	U	3
1,4-Dichlorobenzene	106-46-7	<4	U	<4	U	<4	U	<0.2	U	3
1,4-Dioxane	123-91-1	<800	U	<800	U	<800	U	<40	U	~
2-Butanone	78-93-3	**67**	D	<4	U	<4	U	<0.2	U	50
2-Hexanone	591-78-6	<4	U	<4	U	<4	U	<0.2	U	50
4-Methyl-2-pentanone	108-10-1	<4	U	<4	U	<4	U	<0.2	U	~
Acetone	67-64-1	**96**	D	**55**	D	43	D	<1	U	50
Acrolein	107-02-8	<4	U	<4	U	<4	U	<0.2	U	~
Acrylonitrile	107-13-1	<4	U	<4	U	<4	U	<0.2	U	~
Benzene	71-43-2	<4	U	<4	U	<4	U	<0.2	U	1
Bromochloromethane	74-97-5	<4	U	<4	U	<4	U	<0.2	U	5
Bromodichloromethane	75-27-4	5.200	JD	10	D	9.800	JD	<0.2	U	50
Bromoform	75-25-2	<4	U	<4	U	<4	U	<0.2	U	50
Bromomethane	74-83-9	<4	U	<4	U	<4	U	<0.2	U	5
Carbon disulfide	75-15-0	<4	U	<4	U	<4	U	<0.2	U	~
Carbon tetrachloride	56-23-5	<4	U	4	JD	4.400	JD	<0.2	U	5
Chlorobenzene	108-90-7	<4	U	<4	U	<4	U	<0.2	U	5
Chloroethane	75-00-3	<4	U	**5.200**	JD	**5.800**	JD	<0.2	U	5
Chloroform	67-66-3	**880**	D	**670**	D	**660**	D	<0.2	U	7
Chloromethane	74-87-3	**6**	JD	**24**	D	**25**	D	<0.2	U	5
cis-1,2-Dichloroethylene	156-59-2	<4	U	<4	U	<4	U	<0.2	U	5
cis-1,3-Dichloropropylene	10061-01-5	<4	U	<4	U	<4	U	<0.2	U	0.4
Cyclohexane	110-82-7	<4	U	<4	U	<4	U	<0.2	U	~
Dibromochloromethane	124-48-1	<4	U	4	JD	4.200	JD	<0.2	U	50
Dibromomethane	74-95-3	<4	U	<4	U	<4	U	<0.2	U	~
Dichlorodifluoromethane	75-71-8	<4	U	<4	U	<4	U	<0.2	U	5
Ethyl Benzene	100-41-4	<4	U	**8.600**	JD	<4	U	<0.2	U	5
Hexachlorobutadiene	87-68-3	<4	U	<4	U	<4	U	<0.2	U	0.5
Isopropylbenzene	98-82-8	<4	U	<4	U	<4	U	<0.2	U	5
Methyl acetate	79-20-9	<4	U	<4	U	<4	U	<0.2	U	~
Methyl tert-butyl ether (MTBE)	1634-04-4	<4	U	<4	U	<4	U	<0.2	U	10
Methylcyclohexane	108-87-2	<4	U	<4	U	<4	U	<0.2	U	~
Methylene chloride	75-09-2	<20	U	<20	U	<20	U	<1	U	5
n-Butylbenzene	104-51-8	<4	U	<4	U	<4	U	<0.2	U	5
n-Propylbenzene	103-65-1	<4	U	<4	U	<4	U	<0.2	U	5
o-Xylene	95-47-6	<4	U	**8.200**	JD	<4	U	<0.2	U	5
p- & m- Xylenes	179601-23-1	<10	U	<10	U	<10	U	<0.5	U	5
p-Isopropyltoluene	99-87-6	<4	U	<4	U	<4	U	<0.2	U	5
sec-Butylbenzene	135-98-8	<4	U	<4	U	<4	U	<0.2	U	5
Styrene	100-42-5	<4	U	<4	U	<4	U	<0.2	U	5
tert-Butyl alcohol (TBA)	75-65-0	<10	U	<10	U	<10	U	<0.5	U	~
tert-Butylbenzene	98-06-6	<4	U	<4	U	<4	U	<0.2	U	5
Tetrachloroethylene	127-18-4	<4	U	**64**	D	**65**	D	<0.2	U	5
Toluene	108-88-3	<4	U	**5.200**	JD	<4	U	0.340	J	5
trans-1,2-Dichloroethylene	156-60-5	<4	U	<4	U	<4	U	<0.2	U	5
trans-1,3-Dichloropropylene	10061-02-6	<4	U	<4	U	<4	U	<0.2	U	0.4
trans-1,4-dichloro-2-butene	110-57-6	<4	U	<4	U	<4	U	<0.2	U	~
Trichloroethylene	79-01-6	<4	U	<4	U	<4	U	<0.2	U	5
Trichlorofluoromethane	75-69-4	<4	U	<4	U	<4	U	<0.2	U	5
Vinyl Chloride	75-01-4	<4	U	<4	U	<4	U	<0.2	U	2
Xylenes, Total	1330-20-7	<12	U	**15**	JD	<12	U	<0.6	U	5

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Table 2
Groundwater Sampling Summary Table for Semi-Volatile Organic Compounds
27-03, 27-09, and 27-11 40th Avenue and 39-44 28th Street
Long Island City, New York

Sample ID		TW-5		GW-DUP		NYSDEC TOGS Standards and Guidance Values - GA
York ID		19G0248-02		19G0248-03		
Sampling Date		7/1/2019		7/1/2019		
Client Matrix		Groundwater		Groundwater		
Compound	**CAS Number**	Result	Q	Result	Q	
Semi-Volatiles, 8270 - Comprehensive		ug/L		ug/L		ug/L
Dilution Factor		1		1		
1,1-Biphenyl	92-52-4	<2.56	U	<2.56	U	~
1,2,4,5-Tetrachlorobenzene	95-94-3	<2.56	U	<2.56	U	~
1,2,4-Trichlorobenzene	120-82-1	<2.56	U	<2.56	U	5
1,2-Dichlorobenzene	95-50-1	<2.56	U	<2.56	U	3
1,2-Diphenylhydrazine (as Azobenzene)	122-66-7	<2.56	U	<2.56	U	~
1,3-Dichlorobenzene	541-73-1	<2.56	U	<2.56	U	3
1,4-Dichlorobenzene	106-46-7	<2.56	U	<2.56	U	3
2,3,4,6-Tetrachlorophenol	58-90-2	<2.56	U	<2.56	U	~
2,4,5-Trichlorophenol	95-95-4	<2.56	U	<2.56	U	1
2,4,6-Trichlorophenol	88-06-2	<2.56	U	<2.56	U	1
2,4-Dichlorophenol	120-83-2	<2.56	U	<2.56	U	5
2,4-Dimethylphenol	105-67-9	<2.56	U	<2.56	U	50
2,4-Dinitrophenol	51-28-5	<2.56	U	<2.56	U	10
2,4-Dinitrotoluene	121-14-2	<2.56	U	<2.56	U	5
2,6-Dinitrotoluene	606-20-2	<2.56	U	<2.56	U	5
2-Chloronaphthalene	91-58-7	<2.56	U	<2.56	U	10
2-Chlorophenol	95-57-8	<2.56	U	<2.56	U	1
2-Methylnaphthalene	91-57-6	<2.56	U	<2.56	U	~
2-Methylphenol	95-48-7	<2.56	U	<2.56	U	1
2-Nitroaniline	88-74-4	<2.56	U	<2.56	U	5
2-Nitrophenol	88-75-5	<2.56	U	<2.56	U	1
3- & 4-Methylphenols	65794-96-9	<2.56	U	<2.56	U	~
3,3-Dichlorobenzidine	91-94-1	<2.56	U	<2.56	U	5
3-Nitroaniline	99-09-2	<2.56	U	<2.56	U	5
4,6-Dinitro-2-methylphenol	534-52-1	<2.56	U	<2.56	U	~
4-Bromophenyl phenyl ether	101-55-3	<2.56	U	<2.56	U	~
4-Chloro-3-methylphenol	59-50-7	<2.56	U	<2.56	U	1
4-Chloroaniline	106-47-8	<2.56	U	<2.56	U	5
4-Chlorophenyl phenyl ether	7005-72-3	<2.56	U	<2.56	U	~
4-Nitroaniline	100-01-6	<2.56	U	<2.56	U	5
4-Nitrophenol	100-02-7	<2.56	U	<2.56	U	1
Acenaphthene	83-32-9	<2.56	U	<2.56	U	20
Acenaphthylene	208-96-8	<2.56	U	<2.56	U	~
Acetophenone	98-86-2	<2.56	U	<2.56	U	~
Aniline	62-53-3	<2.56	U	<2.56	U	5
Anthracene	120-12-7	<2.56	U	<2.56	U	50
Atrazine	1912-24-9	<2.56	U	<2.56	U	~
Benzaldehyde	100-52-7	9.430		<2.56	U	~
Benzidine	92-87-5	<10.3	U	<10.3	U	~
Benzo(a)anthracene	56-55-3	<2.56	U	<2.56	U	0.002
Benzo(a)pyrene	50-32-8	<2.56	U	<2.56	U	0.002
Benzo(b)fluoranthene	205-99-2	<2.56	U	<2.56	U	0.002
Benzo(g,h,i)perylene	191-24-2	<2.56	U	<2.56	U	~
Benzo(k)fluoranthene	207-08-9	<2.56	U	<2.56	U	0.002
Benzoic acid	65-85-0	29.800	J	30	J	~
Benzyl alcohol	100-51-6	<2.56	U	<2.56	U	~
Benzyl butyl phthalate	85-68-7	<2.56	U	<2.56	U	50
Bis(2-chloroethoxy)methane	111-91-1	<2.56	U	<2.56	U	5
Bis(2-chloroethyl)ether	111-44-4	<2.56	U	<2.56	U	1
Bis(2-chloroisopropyl)ether	108-60-1	<2.56	U	<2.56	U	5
Bis(2-ethylhexyl)phthalate	117-81-7	<2.56	U	<2.56	U	5
Caprolactam	105-60-2	<2.56	U	<2.56	U	~
Carbazole	86-74-8	<2.56	U	<2.56	U	~
Chrysene	218-01-9	<2.56	U	<2.56	U	0.002
Dibenzo(a,h)anthracene	53-70-3	<2.56	U	<2.56	U	~
Dibenzofuran	132-64-9	<2.56	U	<2.56	U	~
Diethyl phthalate	84-66-2	<2.56	U	<2.56	U	50
Dimethyl phthalate	131-11-3	<2.56	U	<2.56	U	50
Di-n-butyl phthalate	84-74-2	<2.56	U	<2.56	U	50
Di-n-octyl phthalate	117-84-0	<2.56	U	<2.56	U	50
Fluoranthene	206-44-0	<2.56	U	<2.56	U	50
Fluorene	86-73-7	<2.56	U	<2.56	U	50
Hexachlorobenzene	118-74-1	<2.56	U	<2.56	U	0.04
Hexachlorobutadiene	87-68-3	<2.56	U	<2.56	U	0.5
Hexachlorocyclopentadiene	77-47-4	<2.56	U	<2.56	U	5
Hexachloroethane	67-72-1	<2.56	U	<2.56	U	5
Indeno(1,2,3-cd)pyrene	193-39-5	<2.56	U	<2.56	U	0.002
Isophorone	78-59-1	<2.56	U	<2.56	U	50
Naphthalene	91-20-3	<2.56	U	<2.56	U	10
Nitrobenzene	98-95-3	<2.56	U	<2.56	U	0.4
N-Nitrosodimethylamine	62-75-9	<2.56	U	<2.56	U	~
N-nitroso-di-n-propylamine	621-64-7	<2.56	U	<2.56	U	~
N-Nitrosodiphenylamine	86-30-6	<2.56	U	<2.56	U	50
Pentachlorophenol	87-86-5	<2.56	U	<2.56	U	1
Phenanthrene	85-01-8	<2.56	U	<2.56	U	50
Phenol	108-95-2	<2.56	U	<2.56	U	1
Pyrene	129-00-0	<2.56	U	<2.56	U	50

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Table 2
Groundwater Sampling Summary Table for Metals
27-03, 27-09, and 27-11 40th Avenue and 39-44 28th Street
Long Island City, New York

Sample ID		TW-4		TW-5		GW-DUP		NYSDEC TOGS Standards and Guidance Values - GA
York ID		19G0248-05		19G0248-02		19G0248-03		
Sampling Date		7/2/2019		7/1/2019		7/1/2019		
Client Matrix		Groundwater		Groundwater		Groundwater		
Compound	**CAS Number**	Result	Q	Result	Q	Result	Q	
Metals, Target Analyte, ICP		ug/L		ug/L		ug/L		ug/L
Dilution Factor		10		1		1		
Aluminum	7429-90-5	262,000		4,560		3,630		~
Barium	7440-39-3	**2,530**		104		103		1000
Calcium	7440-70-2	838,000		112,000		115,000		~
Chromium	7440-47-3	**578**		43		41.400		50
Cobalt	7440-48-4	288		5.810		5.080		~
Copper	7440-50-8	**715**		22.200	U	22.200	U	200
Iron	7439-89-6	532,000	D	5,590		4,730		~
Lead	7439-92-1	**238**		5.560	U	5.560	U	25
Magnesium	7439-95-4	**333,000**		**37,700**		**38,300**		35000
Manganese	7439-96-5	**15,700**		**344**		**330**		300
Nickel	7440-02-0	**680**		11.100	U	11.100	U	100
Potassium	7440-09-7	79,800		14,300		14,100		~
Silver	7440-22-4	5.560	U	5.560	U	5.560	U	50
Sodium	7440-23-5	**129,000**		**621,000**		**594,000**		20000
Vanadium	7440-62-2	567		11.100	U	11.100	U	~
Zinc	7440-66-6	1,190		74.200		69.400		2000
Metals, Target Analyte, ICP Dissolved		ug/L		ug/L		ug/L		ug/L
Dilution Factor		1		1		1		
Aluminum	7429-90-5	<55.6	U	<55.6	U	<55.6	U	~
Barium	7440-39-3	87.900		71.300		61.900		1000
Calcium	7440-70-2	200,000		120,000		119,000		~
Chromium	7440-47-3	5.750		41.200		40.100		50
Cobalt	7440-48-4	16.100		<4.44	U	<4.44	U	~
Copper	7440-50-8	75.100		<22.2	U	<22.2	U	200
Iron	7439-89-6	<278	U	<278	U	<278	U	~
Lead	7439-92-1	<5.56	U	<5.56	U	<5.56	U	25
Magnesium	7439-95-4	**39,800**		**39,100**		**40,400**		35000
Manganese	7439-96-5	**737**		96.200		86.400		300
Nickel	7440-02-0	13.700		<11.1	U	<11.1	U	100
Potassium	7440-09-7	18,900		14,300		14,100		~
Silver	7440-22-4	<5.56	U	<5.56	U	<5.56	U	50
Sodium	7440-23-5	**128,000**		**676,000**		**625,000**		20000
Vanadium	7440-62-2	<11.1	U	<11.1	U	<11.1	U	~
Zinc	7440-66-6	<27.8	U	104		<27.8	U	2000
Metals, Target Analyte, ICPMS		ug/L		ug/L		ug/L		ug/L
Dilution Factor		1		1		1		
Antimony	7440-36-0	1.640		<1.11	U	<1.11	U	3
Arsenic	7440-38-2	**35.300**		2.740		2.600		25
Beryllium	7440-41-7	0.535		<0.333	U	<0.333	U	3
Cadmium	7440-43-9	3.010		<0.556	U	<0.556	U	5
Selenium	7782-49-2	**164**		**13.100**		**17.100**		10
Thallium	7440-28-0	2.710		<1.11	U	<1.11	U	~
Metals, Target Analyte, ICPMS Dissolved		ug/L		ug/L		ug/L		ug/L
Dilution Factor		1		1		1		
Antimony	7440-36-0	1.200		<1.11	U	<1.11	U	3
Arsenic	7440-38-2	1.310		2.080		1.750		25
Beryllium	7440-41-7	<0.333	U	<0.333	U	<0.333	U	3
Cadmium	7440-43-9	<0.556	U	<0.556	U	<0.556	U	5
Selenium	7782-49-2	8.020		**12.900**		**14.600**		10
Thallium	7440-28-0	<1.11	U	<1.11	U	<1.11	U	~
Mercury by 7473		ug/L		ug/L		ug/L		ug/L
Dilution Factor		1		1		1		
Mercury	7439-97-6	<0.2	U	<0.2	U	<0.2	U	0.7
Mercury by 7473, Dissolved		ug/L		ug/L		ug/L		ug/L
Dilution Factor		1		1		1		
Mercury	7439-97-6	<0.2	U	<0.2	U	<0.2	U	0.7

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Table 2
Groundwater Sampling Summary Table for Pesticides and PCBs
27-03, 27-09, and 27-11 40th Avenue and 39-44 28th Street
Long Island City, New York

Sample ID York ID Sampling Date Client Matrix		TW-5 19G0248-02 7/1/2019 Groundwater		GW-DUP 19G0248-03 7/1/2019 Groundwater		NYSDEC TOGS Standards and Guidance Values - GA
Compound	**CAS Number**	Result	Q	Result	Q	
Pesticides, 8081 target list		ug/L		ug/L		ug/L
Dilution Factor		1		1		
4,4'-DDD	72-54-8	<0.004	U	<0.004	U	0.3
4,4'-DDE	72-55-9	0.00446		<0.004	U	0.2
4,4'-DDT	50-29-3	<0.004	U	<0.004	U	0.2
Aldrin	309-00-2	<0.004	U	<0.004	U	~
alpha-BHC	319-84-6	<0.004	U	<0.004	U	0.01
alpha-Chlordane	5103-71-9	<0.004	U	<0.004	U	~
beta-BHC	319-85-7	<0.004	U	<0.004	U	0.04
Chlordane, total	57-74-9	<0.02	U	<0.02	U	0.05
delta-BHC	319-86-8	<0.004	U	<0.004	U	0.04
Dieldrin	60-57-1	<0.002	U	<0.002	U	0.004
Endosulfan I	959-98-8	<0.004	U	<0.004	U	~
Endosulfan II	33213-65-9	<0.004	U	<0.004	U	~
Endosulfan sulfate	1031-07-8	<0.004	U	<0.004	U	~
Endrin	72-20-8	<0.004	U	<0.004	U	~
Endrin aldehyde	7421-93-4	<0.01	U	<0.01	U	5
Endrin ketone	53494-70-5	<0.01	U	<0.01	U	5
gamma-BHC (Lindane)	58-89-9	<0.004	U	<0.004	U	0.05
gamma-Chlordane	5566-34-7	<0.01	U	<0.01	U	~
Heptachlor	76-44-8	<0.004	U	<0.004	U	0.04
Heptachlor epoxide	1024-57-3	<0.004	U	<0.004	U	0.03
Methoxychlor	72-43-5	<0.004	U	<0.004	U	35
Toxaphene	8001-35-2	<0.1	U	<0.1	U	0.06
Polychlorinated Biphenyls (PCB)		ug/L		ug/L		ug/L
Dilution Factor		1		1		
Aroclor 1016	12674-11-2	<0.05	U	<0.05	U	~
Aroclor 1221	11104-28-2	<0.05	U	<0.05	U	~
Aroclor 1232	11141-16-5	<0.05	U	<0.05	U	~
Aroclor 1242	53469-21-9	<0.05	U	<0.05	U	~
Aroclor 1248	12672-29-6	<0.05	U	<0.05	U	~
Aroclor 1254	11097-69-1	<0.05	U	<0.05	U	~
Aroclor 1260	11096-82-5	<0.05	U	<0.05	U	~
Total PCBs	1336-36-3	<0.05	U	<0.05	U	0.09

NOTES:
Any Regulatory Exceedences are color coded by Regulation

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
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis

NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 2
Groundwater Sampling Summary Table for PFOAs/PFOS and 1,4-dioxane
27-03, 27-09, and 27-11 40th Avenue and 39-44 28th Street
Long Island City, New York

Sample ID		**TW-5**		**TW-5**	
York ID		**19G0248-04**		**19G0248-07**	
Sampling Date		**7/1/2019**		**7/1/2019**	
Client Matrix		**Groundwater**		**Groundwater**	
Compound	**CAS Number**	Result	Q	Result	Q
Semi-Volatiles, 1,4-Dioxane by 8270-SIM					
Dilution Factor		1			
1,4-Dioxane	123-91-1	3.120		NT	
PFAS, NYSDEC Target List		ug/L		ug/L	
Dilution Factor				1	
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	39108-34-4	NT		<0.002	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	27619-97-2	NT		<0.005	U
N-EtFOSAA	2991-50-6	NT		<0.002	U
N-MeFOSAA	2355-31-9	NT		<0.002	U
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	NT		<0.002	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	NT		<0.002	U
Perfluoro-1-octanesulfonamide (FOSA)	754-91-6	NT		<0.002	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	NT		<0.002	U
Perfluorodecanoic acid (PFDA)	335-76-2	NT		<0.002	U
Perfluorododecanoic acid (PFDoA)	307-55-1	NT		<0.002	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	NT		0.00225	
Perfluorohexanesulfonic acid (PFHxS)	3871-99-6	NT		<0.002	U
Perfluorohexanoic acid (PFHxA)	307-24-4	NT		0.00855	
Perfluoro-n-butanoic acid (PFBA)	375-22-4	NT		0.00621	
Perfluorononanoic acid (PFNA)	375-95-1	NT		<0.002	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	NT		<0.002	U
Perfluorooctanoic acid (PFOA)	335-67-1	NT		0.00328	
Perfluoropentanoic acid (PFPeA)	2706-90-3	NT		0.0161	
Perfluorotetradecanoic acid (PFTA)	376-06-7	NT		<0.002	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	NT		<0.002	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	NT		<0.002	U

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U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 3
Soil Vapor Sampling Summary Table for Volatile Organic Compounds
27-03, 27-09, and 27-11 40th Avenue and 39-44 28th Street
Long Island City, New York

Sample ID		SV-1		SV-2		SV-3		SV-4		SV-5		SV-6		SV-7	
York ID		19G0219-01		19G0219-02		19G0219-03		19G0219-04		19G0219-05		19G0219-06		19G0219-07	
Sampling Date		7/1/2019		7/1/2019		7/1/2019		7/1/2019		7/1/2019		7/1/2019		7/1/2019	
Client Matrix		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor	
Compound	**CAS Number**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, EPA TO15 Full List		ug/m^3		ug/m^3		ug/m^3		ug/m^3		ug/m^3		ug/m^3		ug/m^3	
Dilution Factor		146.64		1.664		7.3		10339		89.25		8.45		1.572	
1,1,1,2-Tetrachloroethane	630-20-6	<13	U	<1.1	U	<5	U	<12	U	<12	U	<5.8	U	<1.1	U
1,1,1-Trichloroethane	71-55-6	<10	U	<0.91	U	<4	U	<9.8	U	<9.7	U	<4.6	U	<0.86	U
1,1,2,2-Tetrachloroethane	79-34-5	<13	U	<1.1	U	<5	U	<12	U	<12	U	<5.8	U	<1.1	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	<14	U	<1.3	U	<5.6	U	<14	U	<14	U	<6.5	U	<1.2	U
1,1,2-Trichloroethane	79-00-5	<10	U	<0.91	U	<4	U	<9.8	U	<9.7	U	<4.6	U	<0.86	U
1,1-Dichloroethane	75-34-3	<7.4	U	<0.67	U	<3	U	<7.3	U	<7.2	U	<3.4	U	<0.64	U
1,1-Dichloroethylene	75-35-4	<1.8	U	<0.16	U	<0.72	U	3.600	D	<1.8	U	<0.84	U	0.500	D
1,2,4-Trichlorobenzene	120-82-1	<14	U	<1.2	U	<5.4	U	<13	U	<13	U	<6.3	U	<1.2	U
1,2,4-Trimethylbenzene	95-63-6	<9	U	1.600	D	<3.6	U	<8.8	U	<8.8	U	4.200	D	2.900	D
1,2-Dibromoethane	106-93-4	<14	U	<1.3	U	<5.6	U	<14	U	<14	U	<6.5	U	<1.2	U
1,2-Dichlorobenzene	95-50-1	<11	U	<1	U	<4.4	U	<11	U	<11	U	<5.1	U	<0.95	U
1,2-Dichloroethane	107-06-2	<7.4	U	<0.67	U	<3	U	<7.3	U	<7.2	U	<3.4	U	<0.64	U
1,2-Dichloropropane	78-87-5	<8.5	U	<0.77	U	<3.4	U	<8.3	U	<8.2	U	<3.9	U	<0.73	U
1,2-Dichlorotetrafluoroethane	76-14-2	<13	U	<1.2	U	<5.1	U	<13	U	<12	U	<5.9	U	<1.1	U
1,3,5-Trimethylbenzene	108-67-8	<9	U	<0.82	U	<3.6	U	<8.8	U	<8.8	U	<4.2	U	0.930	D
1,3-Butadiene	106-99-0	<12	U	<1.1	U	<4.8	U	<12	U	<12	U	<5.6	U	<1	U
1,3-Dichlorobenzene	541-73-1	<11	U	<1	U	<4.4	U	<11	U	<11	U	<5.1	U	<0.95	U
1,3-Dichloropropane	142-28-9	<8.5	U	<0.77	U	<3.4	U	<8.3	U	<8.2	U	<3.9	U	<0.73	U
1,4-Dichlorobenzene	106-46-7	<11	U	2.600	D	<4.4	U	<11	U	<11	U	<5.1	U	2.300	D
1,4-Dioxane	123-91-1	<13	U	<1.2	U	<5.3	U	<13	U	<13	U	<6.1	U	<1.1	U
2-Butanone	78-93-3	130	D	90	D	93	D	220	D	54	D	17	D	18	D
2-Hexanone	591-78-6	26	D	16	D	12	D	35	D	<15	U	<6.9	U	3.500	D
3-Chloropropene	107-05-1	<29	U	<2.6	U	<11	U	<28	U	<28	U	<13	U	<2.5	U
4-Methyl-2-pentanone	108-10-1	<7.5	U	<0.68	U	<3	U	<7.4	U	<7.3	U	<3.5	U	<0.64	U
Acetone	67-64-1	350	D	NT		NT		720	D	270	D	170	D	96	D
Acrylonitrile	107-13-1	<4	U	<0.36	U	<1.6	U	<3.9	U	<3.9	U	<1.8	U	<0.34	U
Benzene	71-43-2	<5.9	U	<0.53	U	<2.3	U	<5.7	U	<5.7	U	<2.7	U	0.800	D
Benzyl chloride	100-44-7	<9.5	U	<0.86	U	<3.8	U	<9.3	U	<9.2	U	<4.4	U	<0.81	U
Bromodichloromethane	75-27-4	<12	U	<1.1	U	<4.9	U	<12	U	<12	U	<5.7	U	<1.1	U
Bromoform	75-25-2	<19	U	<1.7	U	<7.5	U	<19	U	<18	U	<8.7	U	<1.6	U
Bromomethane	74-83-9	<7.1	U	<0.65	U	<2.8	U	<7	U	<6.9	U	<3.3	U	<0.61	U
Carbon disulfide	75-15-0	<5.7	U	<0.52	U	<2.3	U	<5.6	U	<5.6	U	<2.6	U	0.640	D
Carbon tetrachloride	56-23-5	<2.9	U	**0.420**	D	<1.1	U	<2.8	U	<2.8	U	**2.100**	D	**1.700**	D
Chlorobenzene	108-90-7	<8.4	U	<0.77	U	<3.4	U	<8.3	U	<8.2	U	<3.9	U	<0.72	U
Chloroethane	75-00-3	<4.8	U	<0.44	U	<1.9	U	<4.7	U	<4.7	U	<2.2	U	0.580	D
Chloroform	67-66-3	52	D	<0.81	U	<3.6	U	36	D	44	D	31	D	NT	
Chloromethane	74-87-3	<3.8	U	1.100	D	<1.5	U	<3.7	U	<3.7	U	<1.7	U	2.900	D
cis-1,2-Dichloroethylene	156-59-2	**12**	D	<0.16	U	<0.72	U	**23**	D	**14**	D	**1.700**	D	<0.16	U
cis-1,3-Dichloropropylene	10061-01-5	<8.3	U	<0.76	U	<3.3	U	<8.1	U	<8.1	U	<3.8	U	<0.71	U
Cyclohexane	110-82-7	<6.3	U	<0.57	U	<2.5	U	<6.2	U	<6.1	U	2.900	D	1.600	D
Dibromochloromethane	124-48-1	<16	U	<1.4	U	<6.2	U	<15	U	<15	U	<7.2	U	<1.3	U
Dichlorodifluoromethane	75-71-8	<9.1	U	1.700	D	<3.6	U	<8.9	U	<8.8	U	4.200	D	1.900	D
Ethyl acetate	141-78-6	<13	U	<1.2	U	13	D	<13	U	<13	U	12	D	5.500	D
Ethyl Benzene	100-41-4	<8	U	<0.72	U	<3.2	U	<7.8	U	<7.8	U	<3.7	U	1.300	D
Hexachlorobutadiene	87-68-3	<20	U	<1.8	U	<7.8	U	<19	U	<19	U	<9	U	<1.7	U
Isopropanol	67-63-0	<9	U	1.700	D	13	D	<8.8	U	<8.8	U	<4.2	U	3.600	D
Methyl Methacrylate	80-62-6	<7.5	U	<0.68	U	<3	U	<7.3	U	<7.3	U	<3.5	U	0.770	D
Methyl tert-butyl ether (MTBE)	1634-04-4	<6.6	U	<0.6	U	<2.6	U	<6.5	U	<6.4	U	<3	U	<0.57	U
Methylene chloride	75-09-2	**18**	D	**1.200**	D	**5.800**	D	<12	U	<12	U	<5.9	U	4.900	D
n-Heptane	142-82-5	<7.5	U	1.500	D	<3	U	<7.4	U	<7.3	U	<3.5	U	1.600	D
n-Hexane	110-54-3	<6.5	U	1.100	D	<2.6	U	<6.3	U	<6.3	U	<3	U	1.300	D
o-Xylene	95-47-6	9.600	D	0.790	D	<3.2	U	<7.8	U	<7.8	U	3.700	D	2	D
p- & m- Xylenes	179601-23-1	18	D	1.700	D	<6.3	U	<16	U	<16	U	<7.3	U	4.600	D
p-Ethyltoluene	622-96-8	<9	U	1.100	D	<3.6	U	<8.8	U	<8.8	U	<4.2	U	2	D
Propylene	115-07-1	15	D	2.600	D	27	D	25	D	<3.1	U	<1.5	U	<0.27	U
Styrene	100-42-5	<7.8	U	<0.71	U	<3.1	U	<7.6	U	<7.6	U	<3.6	U	<0.67	U
Tetrachloroethylene	127-18-4	**39,000**	D	<0.28	U	NT		**1,600,000**	D	**15,000**	D	1,600	D	**140**	D
Tetrahydrofuran	109-99-9	<11	U	<0.98	U	<4.3	U	<11	U	<11	U	<5	U	<0.93	U
Toluene	108-88-3	16	D	4.800	D	8.500	D	53	D	17	D	9.200	D	8.800	D
trans-1,2-Dichloroethylene	156-60-5	<7.3	U	<0.66	U	<2.9	U	7.100	D	<7.1	U	<3.4	U	<0.62	U
trans-1,3-Dichloropropylene	10061-02-6	<8.3	U	<0.76	U	<3.3	U	<8.1	U	<8.1	U	<3.8	U	<0.71	U
Trichloroethylene	79-01-6	**130**	D	**0.270**	D	**15**	D	**4,800**	D	**130**	D	**19**	D	**2.900**	D
Trichlorofluoromethane (Freon 11)	75-69-4	19	D	1.100	D	5.700	D	32	D	18	D	8.100	D	2.800	D
Vinyl acetate	108-05-4	<6.5	U	<0.59	U	<2.6	U	<6.3	U	<6.3	U	<3	U	<0.55	U
Vinyl bromide	593-60-2	<8	U	<0.73	U	<3.2	U	<7.9	U	<7.8	U	<3.7	U	<0.69	U
Vinyl Chloride	75-01-4	<1.2	U	<0.11	U	<0.47	U	<1.1	U	<1.1	U	<0.54	U	<0.1	U

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Table 4
Groundwater Gauging Log
27-03, 27-09, and 27-11 40th Avenue and 39-44 28th Street
Long Island City, New York

Well I.D.	Depth To Product (ft.)	Depth To Water (ft.)	Head Space (PPM)
MW-1 (40' deep)	N/A	Mud at 36.77' top of casing (TOC)	
MW-2 (40' deep)	N/A	Mud at 36.72' (TOC)	
MW-3 (40' deep)	N/A	Mud at 33.31' (TOC)	
MW-4 (40'deep)	N/A	38.13' TOC	
MW-5 (40' deep)	N/A	38.22' TOC	