

FORMER F&S CENTRAL MANUFACTURING CORP. SITE

103 NORTH 13th STREET
BROOKLYN, NEW YORK
Block 2279 Lot 34

Final Engineering Report

NYSDEC Site Number: C224230

Program Volunteer:

North 13 Holdings LLC
505 Flushing Avenue, Unit 1D
Brooklyn, NY 11205



Ariel Czemerinski, PE
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

DECEMBER 2017

CERTIFICATIONS

I, Ariel Czemerinski certify that I am currently a NYS registered professional engineer, I had primary direct responsibility for the implementation of the subject construction program, and I certify that the Remedial Work Plan was implemented and that all construction activities were completed in substantial conformance with the DER-approved Remedial Work Plan.

I certify that this Final Engineering Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in the Remedial Action Work Plan and in all applicable statutes and regulations have been achieved in accordance with the time frames, if any, established for the remedy.

I certify that all documents generated in support of this report have been submitted in accordance with the DER's electronic submission protocols and have been accepted by the Department.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Ariel Czemerinski, of AMC Engineering, PLLC, am certifying as Owner's Designated Site Representative for the site.

076508
NYS Professional Engineer #

12/18/2017
Date



TABLE OF CONTENTS
FINAL ENGINEERING REPORT
FORMER F&S CENTRAL MANUFACTURING CORP. SITE
103 North 13th Street, Brooklyn, NY

CERTIFICATIONS.....	II
1.0 BACKGROUND AND SITE DESCRIPTION.....	1
1.1 SITE BACKGROUND.....	1
1.2 SITE LOCATION.....	1
1.3 FORMER SITE USE.....	1
2.0 SUMMARY OF SITE REMEDY.....	4
2.1 REMEDIAL ACTION OBJECTIVES.....	4
2.1.1 Groundwater.....	4
2.1.2 Soil.....	4
2.1.3 Soil Vapor.....	4
2.2 DESCRIPTION OF IMPLEMENTED REMEDY.....	4
3.0 INTERIM REMEDIAL MEASURES.....	6
3.1 INTERIM REMEDIAL MEASURES WORK PLAN (IRM).....	6
4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED.....	7
4.1 GOVERNING DOCUMENTS.....	7
4.1.1 Site Specific Health & Safety Plan (HASP).....	7
4.1.2 Quality Assurance Project Plan (QAPP).....	7
4.1.3 Construction Quality Assurance Plan (CQAP).....	7
4.1.4 Soil/Materials Management Plan (S/MMP).....	9
4.1.5 Storm-Water Pollution Prevention Plan (SWPPP).....	11
4.1.6 Community Air Monitoring Plan (CAMP).....	12
4.1.7 Site Operations Plan (SOP).....	12
4.1.8 Citizen Participation Plan (CPP).....	12
4.2 REMEDIAL PROGRAM ELEMENTS.....	13
4.2.1 Contractors and Consultants.....	13
4.2.2 Site Preparation.....	14
4.2.3 General Site Controls.....	14
4.2.4 Odor, Dust and Nuisance Control Plan.....	15
4.2.5 CAMP Results.....	16
4.2.6 Reporting.....	16
4.3 MATERIALS REMOVAL.....	16
4.3.1 Waste Characterization Sampling – Test Pits and Soil Borings.....	17
4.3.2 Excavation and Disposal of D008 Lead Hazardous Waste.....	20
4.3.3 Excavation and Disposal of Non-Hazardous Contaminated Soil/Fill.....	21
4.3.4 Excavation Dewatering.....	22
4.3.4.1 Disposal Details.....	22
4.3.5 Disposal Summary.....	23
4.4 REMEDIAL PERFORMANCE SAMPLING.....	23

4.4.1	Site-Wide Endpoint Sampling.....	23
4.5	IMPORTED BACKFILL.....	24
4.6	CONTAMINATION REMAINING AT THE SITE	24
4.6.1	Soil	24
4.7	DEVIATIONS FROM THE REMEDIAL ACTION WORK PLAN.....	25

TABLES

Table 1	Soil Cleanup Objectives for the Project
Table 2	Off-Site Soil/Waste Disposal Summary
Table 3	Waste Characterization Sampling Summary
Table 4	Waste Characterization Analytical Results - VOCs
Table 5	Waste Characterization Analytical Results - SVOCs
Table 6	Waste Characterization Analytical Results - Pest/Herb/PCBs
Table 7	Waste Characterization Analytical Results - Metals & TCLP Metals
Table 8	Waste Characterization Analytical Results - RCRA Characteristics
Table 9	Site-Wide Endpoint Soil Analytical Results – VOCs
Table 10	Site-Wide Endpoint Soil Analytical Results – VOC TICs
Table 11	Site-Wide Endpoint Soil Analytical Results - SVOCs
Table 12	Site-Wide Endpoint Soil Analytical Results – SVOC TICs
Table 13	Site-Wide Endpoint Soil Analytical Results - Pesticides/PCBs
Table 14	Site-Wide Endpoint Soil Analytical Results - Metals

FIGURES

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Source Area and Excavation Survey
Figure 4	Grid Sections A and B Waste Characterization Sampling Diagram
Figure 5	Grid Sections A, B, C, and D Waste Characterization Sampling Diagram
Figure 6	Site Wide Endpoint Soil Sampling Diagram

APPENDICES (DIGITAL FILES ON CD)

Appendix A	Digital Copy of FER
Appendix B	Metes and Bounds Description, Survey Map
Appendix C	Community Air Monitoring Reports
Appendix D	Daily Status Reports
Appendix E	Monthly Status Reports
Appendix F	NYSDEC Approvals of Substantive Technical Requirements
Appendix G	Non-Agency Permits Related to the Remedial Action
Appendix H	Digital Photo Log
Appendix I	Disposal Documentation – Clean Earth of North Jersey
Appendix J	Disposal Documentation – Bayshore Soil Management, LLC
Appendix K	Disposal Documentation – Clean Earth of Carteret
Appendix L	Waste Characterization Analytical Reports
Appendix M	Site Wide Endpoint Laboratory Reports
Appendix N	Data Usability Summary Reports
Appendix O	Import Documentation
Appendix P	Dewatering Documentation
Appendix Q	Disposal Documentation – Cycle Chem, Inc.

LIST OF ACRONYMS

Acronym	Definition
AMC	AMC Engineering
AWQS	Ambient Water Quality Standards
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
CQMP	Construction Quality Management Plan
EBC	Environmental Business Consultants
FER	Final Engineering Report
IRM	Interim Remedial Measure
LPH	Liquid Phase Hydrocarbons
NYC	New York City
NYCDEP	New York City Department of Environmental Protection
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
QEP	Qualified Environmental Professional
RAO	Remedial Action Objectives
RAWP	Remedial Action Work Plan
RE	Remedial Engineer
RI	Remedial Investigation
SCG	Standards, Criteria, and Guidelines
SCO	Soil Cleanup Objectives
SMMP	Soil/Materials Management Plan
SSO	Site Safety Officer
SWPPP	Stormwater Pollution Prevention Plan
SVOCs	Semi-Volatile Organic Compounds
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

1.0 BACKGROUND AND SITE DESCRIPTION

1.1 SITE BACKGROUND

North 13 Holdings LLC (the Volunteer) entered into a Brownfield Cleanup Agreement with the New York State Department of Environmental Conservation (NYSDEC) in April of 2016 to remediate a 0.29-acre property located in 103 North 13th Street in Brooklyn, Kings County, New York (Site No. C224230). A Brownfield Cleanup Agreement Amendment executed on December 8, 2017, by the NYSDEC reduced the Site to 12,152.34 sf (0.27 acres). The Site was remediated to unrestricted use and will be used for commercial use. An electronic copy of this FER with all supporting documentation is included as **Appendix A**.

1.2 SITE LOCATION

The address for the Site is listed as 103 North 13th Street, Brooklyn, New York 11249. The Site is located in the City of New York and Borough of Brooklyn (Kings County) as shown on **Figure 1**. The Site consists of a single parcel totaling 12,500 sf (0.29 acre) and is bounded by commercial/ office buildings to the north, an industrial building to the west, commercial/ office and industrial buildings to the east and North 13th Street to the south (see **Figure 2**). The boundaries of the Site are fully described in **Appendix B: Survey Map, Metes and Bounds**. The current zoning for the Site is M1-2, which allows for commercial and light industrial uses.

The property has an elevation of approximately 14 feet above the National Geodetic Vertical Datum (NGVD) feet. The depth to groundwater beneath the Site, as determined from field measurements, is approximately 7 feet below grade. Based on groundwater contour maps, groundwater flow is south-southeast.

1.3 FORMER SITE USE

Previous owners and operators of the property are shown in the tables below. Information regarding ownership of the property was obtained from online property records maintained by the NYC Department of Finance Office of the City Register under its Automated City Register Information System (ACRIS). Information regarding past operators was obtained from lease agreements, Sanborn Fire Insurance Maps, and from a City Directory Search and internet search of the property address.

North 13 Holdings LLC (the Requestor) is the beneficial owner of the project. The Owner of the property, North 13 Holdings LLC, has owned the property since June 2014. The former one-story warehouse/manufacturing building was constructed in 1930. The building was used as an iron pipe warehouse (1940's – 1950's), a paper storage warehouse (1960's), metal pipe hanger manufacturing facility (1970's), contractor's storage facility (1990's) and a food storage warehouse (2000's).

Previous Owners

Dates	Name	Comments	Contact Info
Prior to 3/19/1968	Levarno Realty Corp	Deed	101 58th Street, Brooklyn, NY 11219
From 3/19/1968 to 12/5/1989	Leo Levy Jerome Levy	Deed	610 Johnson Avenue, Brooklyn, NY 11237
From 12/5/1989 to 10/18/2000	Lillian Levy	Deed	94 Shrubhollow Road, Roslyn, NY 11576
From 10/18/2000 to 6/2/2014	Levy Realty, LLC	Deed	610 Johnson Avenue, Brooklyn, NY 11237
6/2/2014 to Present	North 13 Holdings LLC	Deed	C/O Jeffrey Zwick, ESQ. 4309 13th Avenue, Brooklyn, NY 11219

Previous Operators

Dates	Name	Comments	Contact Info
1960's to early 1980's	F&S Central Manufacturing Corp.	ACRIS Internet Search	Bergen Pipe Supports, Inc. 225 Merrimac Street Woburn, MA 01801 (781) 935-9550
1992	Champion Services Inc.	EDR City Directory Listings	Bergen Pipe Supports, Inc. 225 Merrimac Street Woburn, MA 01801 (781) 935-9550
1992	European Granite and Marble Corporation.	EDR City Directory Listings	Bergen Pipe Supports, Inc. 225 Merrimac Street Woburn, MA 01801 (781) 935-9550
1990-1997	Nytex Trading Corp.	EDR City Directory Listings Internet Search	Bergen Pipe Supports, Inc. 225 Merrimac Street Woburn, MA 01801 (781) 935-9550
2008	Ameasia Company Limited	EDR City Directory Listings	103 North 13 th Street, Brooklyn, NY 11211
2008-2013	Compo Trading, Inc.	EDR City Directory Listings	111 North 13 th Street, Brooklyn, NY 11211

2008	Creations International, Inc.	EDR City Directory Listings	107 North 13 th Street, Brooklyn, NY 11211
2003-2010	Harvest Food Co., LTD	Internet Search	103 North 13 th Street, Brooklyn, NY 11211
2013	Amerihua Produce, Inc.	EDR City Directory Listings	103 North 13 th Street, Brooklyn, NY 11211
2013	Emergency Locksmith	EDR City Directory Listings	111 North 13 th Street, Brooklyn, NY 11211
2013	Zhong Fu Food Product Corporation	EDR City Directory Listings	111 North 13 th Street, Brooklyn, NY 11211
2013	Big Wong Trading, Inc.	EDR City Directory Listings	107 North 13 th Street, Brooklyn, NY 11211

2.0 SUMMARY OF SITE REMEDY

2.1 REMEDIAL ACTION OBJECTIVES

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) were identified for this Site.

2.1.1 Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.

RAOs for Environmental Protection

- Remove the source of ground or surface water contamination.

2.1.2 Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

2.1.3 Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

2.2 DESCRIPTION OF IMPLEMENTED REMEDY

The Site was remediated in accordance with the remedy selected by the Remedial Action Work Plan dated November 2015 and the Decision Document dated May 11, 2016. The factors considered during the selection of the remedy are those listed in 6NYCRR 375-1.8. The following are the components of the implemented remedy:

The remedy achieved a Track 1 Cleanup and included the following elements:

- Excavation of soil/fill exceeding Track 1 Unrestricted Use SCOs as listed in Table 1 to a depth of 15 feet below sidewalk grade across the entire Site;
- Screening for indications of contamination (by visual means, odor, and monitoring with PID) of all excavated soil during any intrusive Site work;
- Collection and analysis of endpoint soil samples to evaluate the performance of the remedy with respect to attainment of Track 1 Unrestricted Use SCOs;
- Appropriate off-Site disposal of all material removed from the Site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal;
- Dewatering and treatment of petroleum impacted groundwater before discharging to the NYC sewer system under a NYCDEP sewer discharge permit;
- Import of materials to be used for backfill below the building's concrete mat slab in compliance with: (1) chemical limits and other specifications included in Table 1, (2) all Federal, State and local rules and regulations for handling and transport of material.

All responsibilities associated with the Remedial Action, including permitting requirements and pretreatment requirements, were addressed in accordance with all applicable Federal, State and local rules and regulations. Details on each of the remedial elements listed above are provided in Sections 4.3 through 4.7.

3.0 INTERIM REMEDIAL MEASURES

3.1 INTERIM REMEDIAL MEASURES WORK PLAN (IRM)

The remedy for this Site was performed as a single project, and no interim remedial measures, operable units or separate construction contracts were performed.

4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

4.1 GOVERNING DOCUMENTS

4.1.1 Site Specific Health & Safety Plan (HASP)

The Health and Safety Plan for the implementation of remedial actions at the Former F&S Central Manufacturing Corp. Site was included as Attachment B of the Remedial Action Work Plan (RAWP) approved by the NYSDEC.

All remedial work performed under this Remedial Action was in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA. The Health and Safety Plan (HASP) was complied with for all remedial and invasive work performed at the Site.

4.1.2 Quality Assurance Project Plan (QAPP)

The QAPP was included as Attachment C of the Remedial Action Work Plan (RAWP) approved by the NYSDEC. The QAPP describes the specific policies, objectives, organization, functional activities and quality assurance/ quality control activities designed to achieve the project data quality objectives.

4.1.3 Construction Quality Assurance Plan (CQAP)

The Construction Quality Assurance Plan(s) (CQAPs) managed performance of the Remedial Action tasks through designed and documented QA/QC methodologies applied in the field and in the lab. The CQAP provided a detailed description of the observation and testing activities that were used to monitor construction quality and confirm that remedial construction was in conformance with the remediation objectives and specifications.

The following organizations and key personnel were involved in the implementation of the remedy:

Name	Title	Organization	Responsibilities
Bob Moro	Construction Manager	All Island Construction	Scheduling and oversight of subcontractors and for implementation of the construction program.

Charles Sosik, P.G.	Environmental Project Manager	EBC	Coordination and oversight of day to day field activities, soil disposal, materials importation and UST removal.
HonPong Lau, Anthony Balado, Eleni Kavvadias, Dexter Carter, Roselina Quadros	QEP / SSO	EBC	On-Site soil screening, health and safety oversight and air monitoring. Preparation of daily and monthly status reports and updates to the RE.
Ariel Czemerinski P.E.	Remedial Engineer	AMC Engineering	Overall responsibility for implementation of the remedial plan.

All intrusive and soil disturbance activities were monitored by a QEP who recorded observations in the Site field book and kept a photographic log of the daily activities. The QEP provided daily updates to the Environmental Project Manager and Remedial Engineer (RE) who both made periodic visits to the Site as needed to assure construction quality. Soil samples were collected by the QEP who was on-Site daily during all soil disturbance activities. Waste characterization soil sample collection, analysis and frequency were made in accordance with the requirements of the disposal facility (Clean Earth of Carteret, Clean Earth of North Jersey, and Bayshore Soil Management, LLC). Corrective measures, if required, were to be made in direct consultation with the representative of the selected disposal facility. Project coordination meetings were generally held in the on-Site construction trailer on a weekly basis and supplemented as conditions required. Meeting attendees over the course of the project varied according to need and may have included the following personnel:

- Construction Manager
- QEP/SSO
- Site Foreman / Supervisor
- Architect of Record
- Structural Engineer
- Environmental Project Manager
- Environmental Project Director
- Remedial Engineer

Daily status reports were prepared by the Environmental Project Manager in consultation with the QEP, and distributed to the project contact list via email. Copies of waste manifests, chain of custody documentation and air monitoring reports were placed in appropriately labeled binders

which were kept in the job Site trailer. Photographic documentation was performed on a daily basis, included in the daily status reports, and periodically uploaded to the digital project file at the EBC office.

4.1.4 Soil/Materials Management Plan (S/MMP)

A Soil/Materials Management Plan (S/MMP) was included in the RAWP for excavation, handling, storage, transport and disposal of all soils/materials that were disturbed at the Site. The S/MMP provided detailed plans for managing all soils/materials that were disturbed at the Site, including excavation, handling, storage, transport and disposal. It also included all of the controls that were applied to these efforts to assure effective, nuisance free performance in compliance with all applicable Federal, State and local laws and regulations.

The S/MMP specified the following methods to meet the performance objectives:

- Soil Screening Methods - Visual, olfactory and PID soil screening and assessment was performed by a QEP during all remedial and development excavations into known or potentially contaminated material (Residual Contamination Zone).
- Stockpile Methods - Stockpiles were kept covered at all times with appropriately anchored tarps and inspected daily to ensure the covers were maintained and fugitive dust emissions did not occur. Soil was separated into separate piles based on the soil screening performed by the QEP. The soil pile classifications included D008 Hazardous Lead Soil, and non-hazardous historic fill material. In-Situ waste characterization soil samples were collected for each of the soil classifications prior to excavation and stockpiling in accordance with the frequency and parameters required by the soil disposal facility and/or NYSDEC DER-10.
- Materials Excavation and Load Out - The QEP under the supervision of the RE was on-Site on a daily basis to oversee all invasive work and the excavation and load-out of all excavated material. Loaded vehicles leaving the Site were appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State and local requirements. A truck pad was located at the egress point of the Site and all outbound trucks were inspected and cleaned, as required to remove loose soils before leaving the Site. The adjacent streets were inspected and cleaned as needed with respect to Site -derived materials.

- **Materials Transport Off-Site** - All transport of materials was performed by licensed haulers in accordance with appropriate local, State, and Federal regulations. Truck transport routes were determined prior to construction and a map of the route was posted at the egress points of the Site. All trucks loaded with Site materials exited the vicinity of the Site using the approved truck routes. The identified route was selected to limit transport through residential areas and past sensitive sites and comply with City-mapped truck routes.
- **Materials Disposal Off-Site** - All D008 Hazardous Lead Soil and historic fill material was treated as a contaminated and regulated material and was disposed in accordance with all local, State and Federal regulations. Hazardous waste manifests were used to track and document the off-Site movement of soil characterized as D008-hazardous lead soil. Non-hazardous waste manifests were used to track and document the off-Site movement of non-hazardous soil/fill material. Waste characterization was performed for off-Site disposal in accordance with the requirements of the receiving facility and in conformance with applicable permits. Waste characterization data was provided to the receiving facility and approved in writing by the facility prior to off-Site shipment. A summary of off-Site disposal is provided in Table 2. A summary of waste characterization sampling results is provided in Tables 4 through 8. Waste disposal manifests are provided in Appendix I (D008 Lead Hazardous Soil), Appendix J (D008 Lead Hazardous Soil), and Appendix K (Historic Fill Material).
- **Fluids Management** - Construction wastewater generated from surface runoff was minimized and directed back toward the interior of the Site and the excavation.
- **Backfill from Off-Site Sources** - Virgin-mined ¾" blue stone was imported to the Site to backfill over excavated areas below the mat slab. In accordance with DER-10, this material was exempt from chemical analysis. All materials proposed for import onto the Site were previously approved by the Remedial Engineer and the NYSDEC in accordance with the S/MMP. See Appendix O for documentation on this material.
- **After the completion of soil removal and other invasive remedial activities and prior to backfilling**, a land survey was performed by a New York State licensed surveyor. See Figure 3.
- **Contingency Plan** - The contingency plan specified procedures to document and notify

the NYSDEC in the event that underground tanks or other previously unidentified contaminant sources were found during on-Site remedial excavation or development related construction.

- Community Air Monitoring - The S/MMP specified air monitoring during implementation of each component of the Remedial Action to provide a measure of protection for the downwind community from potential airborne contaminant releases as a direct result of investigative or remedial work activities. As described in Section 4.1.6, the project QEP performed daily monitoring around the perimeter of the property for volatile organic compounds and dust particulates. No exceedances in CAMP action levels were recorded during the remedial action. CAMP logs are presented in Appendix C.
- Odor, Dust and Nuisance Control - Dust control was accomplished by spraying water on exposed soil surfaces to ensure that perimeter action levels established in the CAMP were not exceeded. No work zone or perimeter action level exceedances were detected. Nuisance odors, primarily related to temporarily stockpiled soils and loading operations, were minimized by spraying odor suppressant foam to cover excavated/stockpiled soil.

4.1.5 Storm-Water Pollution Prevention Plan (SWPPP)

This document addressed requirements of New York State Storm-Water Management Regulations including physical methods to control and/or divert surface water flows and to limit the potential for erosion and migration of Site soils, via wind or water.

The erosion and sediment controls for all remedial construction were performed in conformance with requirements presented in the New York State Guidelines for Urban Erosion and Sediment Control and the site-specific Storm Water Pollution Prevention Plan.

Typical measures that were utilized at various stages of the project to limit the potential for erosion and migration of soil included the use of temporary stabilized construction entrances/exits and dust control measures. Shoring consisting of wood lagging, extended around the perimeter of the property allowed for excavation of the entire footprint of the Site, and eliminated erosion and migration of soil off-Site. Construction entrances were stabilized with a RCA base and sloped back toward the interior of the lot. Therefore, all storm water was retained on Site and directed toward the interior of the Site to be pumped into the dewatering system.

4.1.6 Community Air Monitoring Plan (CAMP)

The Community Air Monitoring Plan (CAMP) provided measures for the protection of the surrounding and downwind community (i.e., off-Site receptors including residences, businesses, and on-Site workers not directly involved in the remedial work) from potential airborne contaminant releases resulting from remedial activities. The action levels specified required increased monitoring, corrective actions to abate emissions, and/or work shutdown. The CAMP helps to confirm that the remedial work did not spread contamination off-Site through the air. The primary concerns for this Site were VOC vapors, nuisance odors and dust particulates.

To comply with the requirements of the CAMP, the project QEP performed daily monitoring around the perimeter of the property for volatile organic compounds and dust particulates. Instruments used for CAMP monitoring was performed by two CAMP stations (upwind, and downwind) which included a DustTrack™ II Aerosol Monitor 8530, and a RAE Systems MiniRAE 3000 photoionization detector. No exceedances in CAMP action levels were recorded during the remedial action. Daily CAMP monitoring data sheets are included in Appendix C.

4.1.7 Site Operations Plan (SOP)

The Remedial Engineer reviewed all plans and submittals for this remedial project (i.e. those listed above plus contractor and subcontractor submittals) and confirmed that they were in compliance with the RAWP. All remedial documents were submitted to NYSDEC and NYSDOH in a timely manner and prior to the start of work.

4.1.8 Citizen Participation Plan (CPP)

The approved Citizen Participation Plan for this project specified the following document repositories for all applicable project documents for the duration of the project:

Brooklyn Public Library – Greenpoint Branch

107 Norman Street
Brooklyn, New York 11222
Telephone (718) 349-8504

NYSDEC Region 2 Office

Hunter's Point Plaza

47-40 21st Street

Long Island City, NY 11101

(718) 482-4900

Fact sheets notifying the public of project milestones and of the availability of documents for review and comment were sent to the site contact list in accordance with the Citizen Participation requirements of the NYS Brownfield Cleanup Program. Remaining citizen participation elements will include the distribution of a fact sheet to the site contact list when the Certificate of Completion (COC) is issued.

4.2 REMEDIAL PROGRAM ELEMENTS

4.2.1 Contractors and Consultants

- All Island Construction
 - General Contractor
 - Perform all excavation work
 - Supervise, schedule and coordinate subcontractors
 - Project Budgeting

- Environmental Business Consultants
 - Environmental Consultant
 - Qualified Environmental Professional
 - Perform health and safety and CAMP monitoring
 - Performed soil screening and waste characterization sampling
 - Document remedial program
 - Reporting (Daily, Monthly)

- AMC Engineering
 - Remedial Engineer
 - Performed periodic inspections of work / methods
 - Certified Compliance with RAWP and associated plans
 - Certified Compliance with FER and associated plans

4.2.2 Site Preparation

The Remedial Action Work Plan was formally approved by the NYSDEC by letter dated May 11, 2016. Documentation of NYSDEC approvals is included in Appendix F. Other non-agency permits relating to the remediation project are provided in Appendix G. The following permits were issued for this project.

Appendix E IDs	Permit	Permit Number	Originating Agency	Issued	Expires
1	Alteration – Type 3 Shed	340531008-01-EQ-SH	NYCDOB	08/08/2018	08/08/2018
2	Alteration – Type 2 SOE	321583087-01-EW-OT	NYCDOB	06/29/2017	06/29/2018
3	Alteration – Type 1 Plumbing	320934058-03-PL	NYCDOB	05/05/2017	05/05/2018
4	Extension	320934058-01-AL	NYCDOB	07/14/2017	03/26/2018
5	Alteration – Type 1 Fence	320934058-01-EQ-FN	NYCDOB	11/21/2016	11/21/2017

All SEQRA/CEQR requirements and all substantive compliance requirements for attainment of applicable permits were achieved during this Remedial Action.

Site preparation began with excavating and capping the sewer lines and water lines in the sidewalks adjacent to the property and erection of a construction fence in preparation for demolition work. A preconstruction meeting/ conference call was held with the NYSDEC on May 19, 2016, which included the RE, Environmental Project Manager and Field Manager, Construction Manager, GC, and the excavation contractor.

Mobilization for remedial work occurred during the week of May 23, 2016, and included the delivery and set-up of a foam machine, set up of the SWPP protective measures, installation of stabilized construction entrance, and the delivery of heavy equipment and jobsite tools. A NYSDEC-approved project sign was erected at the project entrance and remained in place during all phases of the Remedial Action. Excavation was completed in May of 2017.

4.2.3 General Site Controls

Security of the Site was maintained by a construction fence erected around the perimeter of the Site, and a gate at the front entrance/egress point which was locked at the end of each work day. Job Site record keeping included a daily sign-in sheet, daily air monitoring logs, waste manifests, accident reports, field notes and photographic documentation. All project forms, logs and receipts were filed on-Site in dedicated binders kept in the construction trailer. Field notes and observations were recorded in a project-dedicated field book which remained on-Site in the

construction trailer. Photographic documentation was up-loaded on a daily basis to a laptop computer which remained in the possession of the QEP.

Erosion and sediment controls included a silt fence stapled to the inside of the construction fence and the truck pads located at the entrance of the Site. The truck pad was inspected following usage and storm events and regraded and maintained as needed.

Bulk contamination on equipment (excavators, trucks, trailers) used on the Site was removed on the Site, and the equipment was further decontaminated (if necessary) on the truck pad. Trucks delivering materials and transporting soil from the property did not enter the Site beyond the truck pad. All trucks were inspected and dry-brushed as needed before leaving the truck pad.

Soil screening was performed by the project QEP during excavation of all on-Site soil to identify and delineate the lead hot-spot, potential petroleum contamination, historic fill material and native soil to allow for segregation of soil into appropriate stockpiles for off-Site disposal at the appropriate/designated facilities. Soil stockpiles were covered with appropriately anchored tarps until disposal facility arrangements were made and soil load out occurred. Soil stockpile covers were inspected daily and after each storm event.

4.2.4 Odor, Dust and Nuisance Control Plan

The S/MMP specified that dust would be controlled by wetting the work area and use of RCA roadways. Dust generation was minimal during most excavation work.

The stabilized construction entrance/egress was maintained by regrading and adding RCA as needed to maintain a clean condition. Since trucks delivering materials to the Site and transporting excavated materials from the Site remained on the truck pad, very little tracking of on-Site soil to the truck pads or to street in front of the Site occurred. Nevertheless, these areas were inspected following truck departure and broom swept as needed to maintain a clean condition.

Nuisance odors, primarily related to temporarily stockpiled soils and loading operations, were minimized by spraying odor suppressant foam to cover excavated and stockpiled soil, and spraying Biosolve Pinkwater with a fine mist spraying power washer.

The selected truck route minimized traffic on neighborhood streets, and followed the NYCDOT-approved truck routes. The truck route map was enlarged and mounted at both Site access gates to notify all drivers.

4.2.5 CAMP Results

Air monitoring was performed on a daily basis at the site boundaries and the work zone for dust and VOCs in accordance with the Community Air Monitoring Plan. No exceedances of the CAMP action levels for either dust or VOCs were reported.

Copies of all field data sheets relating to the CAMP are provided in electronic format in **Appendix C**.

4.2.6 Reporting

In accordance with the approved RAWP, daily status reports were prepared and submitted to the NYSDEC and the project team. Daily reports included a listing of contractors, personnel and equipment on-Site, description of activities performed by contractors, CAMP monitoring results, materials imported/exported to/from the Site and planned activities for the following day.

Monthly project status reports were prepared by the EBC Project Manager and distributed to the NYSDEC and project team. Monthly reports included a summary of the activities performed during the month and those anticipated during the next month, a summary of materials transported on to and off the Site during the month, sampling results and delays in the schedule. All daily status reports are included in electronic format in Appendix D and all monthly status reports are included in electronic format in Appendix E. The digital photo log required by the RAWP is included in electronic format in Appendix H.

4.3 MATERIALS REMOVAL

Materials removed from the Site during the remediation project included D008 Hazardous Lead soil and non-hazardous historic fill material from the building's cellar footprint.

The approved Track 1 cleanup included remediation of all soil to Unrestricted Use SCOs. The implemented remedy included the following:

- Excavation of soil/fill exceeding Track 1 Unrestricted Use SCOs as listed in Table 1 to a

depth of 15 feet below sidewalk grade across the entire Site;

- Screening for indications of contamination (by visual means, odor, and monitoring with PID) of all excavated soil during any intrusive Site work;
- Collection and analysis of end-point samples across the entire Site to evaluate the performance of the remedy with respect to attainment of Track 1 SCOs;
- Appropriate off-Site disposal of all material removed from the Site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal; and
- Dewatering and treatment of petroleum impacted groundwater before discharging to the NYC sewer system under a NYCDEP sewer discharge permit.
- Import of materials for use as backfill in compliance with: (1) chemical limits and other specifications included in Table 1, (2) all Federal, State and local rules and regulations for handling and transport of material.

A list of the Track 1 Unrestricted Use Soil Cleanup Objectives (SCOs) for the contaminants of concern for this project is provided in Table 1. A figure (final excavation survey) depicting the location of original sources and areas where excavations were performed is provided as Figure 3.

Excavation of the historic fill material began on May 24, 2016. Excavation and off-Site disposal of both D008 Hazardous Lead soil/fill and non-hazardous soil/fill for construction of the new building began on March 6, 2017 and was completed by May 2017.

4.3.1 Waste Characterization Sampling – Test Pits and Soil Borings

4.3.1.1 Grid Sections A, and B (0-3')

In order to collect waste characterization soil samples to obtain soil disposal approval at the proposed disposal facilities, the Site was initially divided into two Grid Sections; Grid Section A, and Grid Section B (**Figure 4**). Four test pits were excavated within each of the two Grid Sections on September 3, 2015. Each test pit was excavated to a depth of 3 feet below the building slab using a track mounted excavator. One 4-point composite soil sample and one grab soil sample was collected from the four test pits. A qualified environmental professional (QEP) was on-site to supervise the test pit installation and to collect the samples.

Soil samples collected for waste characterization were placed in pre-cleaned laboratory supplied glassware and Encore samplers, and placed in a cooler packed with ice for transport to the

laboratory. Analysis of the waste characterization samples was provided by Phoenix Environmental Laboratories, Inc. (Phoenix) located at 587 East Middle Turnpike, in Manchester, CT 06040 (NYS ELAP Certification No. 11301). Waste characterization sample analysis consisted of one or more of the following:

Analysis	Method	Frequency
Volatile Organic Compounds (VOCs)	EPA Method 8260	1 every 800 yd ³
Semi-Volatile Organic Compounds (SVOCs)	EPA Method 8270	1 every 800 yd ³
Target Analyte Metals	EPA Method 1311 / 6010	1 every 800 yd ³
TCLP Metals	EPA Method 6010	1 every 800 yd ³
PCBs/Pesticides	EPA Method 8082/8081	1 every 800 yd ³
RCRA Characteristics		1 every 800 yd ³
Total Petroleum Hydrocarbons	EPA Method 8015	1 every 800 yd ³

The analytical reports for the waste characterization soil samples are provided in **Appendix L** (Grid Sections A and B (0-3')). A summary of the waste characterization sampling for each Grid Section is provided in **Table 3**.

Lead was detected at a concentration of 5,480 ppm within the 4-point composite waste characterization soil sample collected from Grid Section A from the interval 0 to 3 feet below grade. In addition, TCLP lead was reported at a concentration of 28.3 mg/L, which is above the regulatory hazardous threshold of 5.0 mg/L. Based on the waste characterization soil samples, Clean Earth of North Jersey (CENJ) accepted all D008 Hazardous Lead soil/fill to be excavated at the Site. Clean Earth of North Jersey is located at 115 Jacobus Avenue, Kearny, NJ 07032. The facility is a RCRA Part B permitted transfer, storage and disposal facility (TSDF) that accepts hazardous and industrial waste under New Jersey Permit No. NJD991291105. A copy of the formal soil disposal request letter prepared by EBC, and a copy of the formal soil disposal acceptance letter prepared by Clean Earth is included in Appendix I.

4.3.1.2 Grid Sections A, B, C and D (4-16ft)

On September 17, 2015, an additional four test pits were excavated at the Site using a track mounted excavator to collect composite waste characterization samples for use in classifying deeper soils for off-Site disposal during remediation activity. The Site was divided into four Grid

Sections (A, B, C, and D) and one test pit was excavated within each of the Grid Sections to a depth of approximately 16 feet below the existing building slab (Figure 5). One 5-point composite waste characterization soil sample was formed from each test pit representing the following intervals; 4 to 8 ft, 8 to 12 ft below grade, and 12 to 16 ft below the existing building slab. One 5-point composite soil sample was collected from the four test pits. Grab samples were collected from the 12-16 foot interval. A qualified environmental professional (QEP) was on-site to supervise the test pit installation and to collect the samples. Historic fill material was present below the slab at a depth of 13 feet below sidewalk grade.

Each of the 5-point composite waste characterization samples and the grab soil samples were placed in pre-cleaned laboratory supplied glassware, and placed in a cooler packed with ice for transport to the laboratory. Analysis of the waste characterization samples was provided by Phoenix. Waste characterization sample analysis consisted of one or more of the following:

Analysis	Method	Frequency
Volatile Organic Compounds (VOCs)	EPA Method 8260	1 every 800 yd ³
Semi-Volatile Organic Compounds (SVOCs)	EPA Method 8270	1 every 800 yd ³
Target Analyte Metals	EPA Method 1311 / 6010	1 every 800 yd ³
TCLP Metals	EPA Method 6010	1 every 800 yd ³
PCBs/Pesticides	EPA Method 8082/8081	1 every 800 yd ³
Herbicides	EPA Method 8151A	1 every 800 yd ³
RCRA Characteristics		1 every 800 yd ³
Extractable Petroleum Hydrocarbons	NJEPH 10-08 R3	1 every 800 yd ³
Total Petroleum Hydrocarbons	EPA Method 8015	1 every 800 yd ³

The analytical reports for the waste characterization soil samples are provided in Appendix L (Grid Sections A, B, C and D (4-16')). A summary of the waste characterization sampling for each Grid Section is provided in Table 3.

Based on the waste characterization soil samples, Clean Earth of North Jersey (CENJ) accepted D008 Hazardous Lead soil from Grid Section A from the interval 4 to 8 feet below grade (TCLP lead reported at 14.9 mg/L), Grid Section A from the interval 12 to 16 feet below grade (TCLP lead reported at 5.84 mg/L) and Grid Section B from the interval 8 to 12 feet below grade (TCLP

lead reported at 14.4 mg/L). Clean Earth of North Jersey is located at 115 Jacobus Avenue, Kearny, NJ 07032. The facility is a RCRA Part B permitted transfer, storage and disposal facility (TSDF) that accepts hazardous and industrial waste under New Jersey Permit No. NJD991291105. A copy of the formal soil disposal request letter prepared by EBC, and a copy of the formal soil disposal acceptance letter prepared by Clean Earth is included in Appendix I.

Based on the laboratory results of the waste characterization soil samples, Bayshore Soil Management, LLC approved the import of the historic fill material from Grid Sections C and D at a depth interval of 4 to 8 feet below grade. Bayshore Soil Management, LLC is a Site located at 75 Crows Mill Road, Keasbey, NJ 08832. Bayshore Soil Management, LLC is registered as a NJDEP Recycling Center for Class B Materials, including petroleum contaminated soil (Permit No. CBG110004). A copy of the formal soil disposal request letter prepared by EBC, and a copy of the formal soil disposal acceptance letter prepared by Bayshore Soil Management, LLC is included in Appendix J.

Based on the laboratory results of the waste characterization soil samples, Clean Earth of Carteret accepted non-hazardous petroleum contaminated soil/urban fill present in Grid Sections C and D at the depth interval of 4 to 16 feet. Clean Earth of Carteret is located at 24 Middlesex Avenue, Carteret, NJ. The Clean Earth of Carteret facility (ID# 13231) is a Class B Recycling Center operating under permit No. CBG060003 issued by the New Jersey Department of Environmental Protection (NJDEP). A copy of the formal soil disposal request letter prepared by EBC, and a copy of the formal soil disposal acceptance letter prepared by Clean Earth Carteret are attached in Appendix K.

4.3.2 Excavation and Disposal of D008 Lead Hazardous Waste

Excavation of the D008 Hazardous Lead soil/fill began on May 24, 2016 and was completed on March 2, 2017. In accordance with the approved RAWP, a stabilized construction entrance was constructed where trucks/equipment entered the Site from North 13th Street. The stabilized construction entrance was constructed of 2-4" RCA and was maintained, as needed, to the edge of the excavation / load-out area to minimize dust generation and the off-Site tracking of Site soil. Two laborers inspected and brushed off the wheels and undercarriage of each truck before it exited the Site and periodically swept the street and the site ingress/egress. All soil excavation

and truck loading was performed by the excavation contractor (All Island Construction) using a track mounted excavator. Hazardous soil was excavated and loaded directly into 10-wheel dump trucks provided by Clean Earth and transported as D008 Hazardous Lead soil to Clean Earth of North Jersey.

4.3.2.1 Disposal Details – D008 Lead Hazardous Waste

A total of 6,088.21 tons of D008 Hazardous Lead soil was excavated and loaded into NYSDEC Part 364 Waste Transporter Permitted 10-wheel dump trucks dispatched by Clean Earth to Clean Earth of North Jersey. Hazardous disposal manifests and associated scale tickets for each truck load are provided as a digital file in **Appendix I**. A summary of the waste streams and their destination is provided in **Table 2**.

4.3.3 Excavation and Disposal of Non-Hazardous Contaminated Soil/Fill

Non-Hazardous historic fill material that required excavation for construction of the new building was removed from the Site in accordance with the procedures outlined under the approved Remedial Action Work Plan. The stabilized construction entrance was constructed of 2-4" RCA which was maintained, as needed, to the edge of the excavation / load-out area to minimize dust generation and the off-Site tracking of Site soil. Two laborers inspected each truck before it exited, and used a power washer and/or hose to remove any remaining soil stuck to the wheels and undercarriage of each truck. In addition, the laborers periodically swept the street and the site ingress/egress. All soil/fill excavation and truck loading was performed by the excavation contractor (All Island Construction) using one or more track mounted excavators.

Non-hazardous historic fill material was excavated to an approximate depth of 13 feet below sidewalk grade across the entire Site from June 28, 2016, to September 13, 2016. Additional deeper excavation was performed to a depth of 15 feet below sidewalk grade across the entire Site to meet Unrestricted Use SCOs.

4.3.3.1 Disposal Details – Non-Hazardous Contaminated Soil/Fill

A total of 3,613.50 tons of non-hazardous historic fill/soil was excavated for construction of the building and loaded into NYSDEC Part 364 Waste Transporter Permitted 10-wheel dump trucks dispatched by Clean Earth as non-hazardous waste at either Clean Earth of Carteret or Bayshore Soil Management, LLC. Formal soil disposal request letters, soil disposal acceptance letters,

facility permits, and non-hazardous manifests for each facility are included in Appendix I (CENJ), Appendix J (Bayshore), and Appendix K (CEC). A summary of the waste streams and their destination is provided in Table 2.

4.3.4 Excavation Dewatering

With groundwater present at approximately 7 feet below sidewalk grade, dewatering was required to facilitate excavate below this depth and also to manage the accumulation of water from rain and snow. Dewatering was accomplished by pumping groundwater from well points installed across the center of the Site. Additional dewatering was performed using trash pumps installed within areas flooded after rain events. The approximate combined pumping rate for surface and groundwater was 1,400 gallons per day and was performed from May 2016 to October 2017.

4.3.4.1 Disposal Details

A sewer discharge permit was issued by the New York City Department of Environmental Protection (NYCDEP) on January 19, 2016, to allow the discharge of up to 900,000 gallons. Dewatering operations consisted of pumping groundwater and surface water into an 8,400 gallon frac tank to remove fine suspended materials through settling, one 5-micron duplex bag filter unit to remove suspended solids, and a pH treatment unit. Approximately 740,000 gallons of water were treated and discharged to the sewer system from February 2016 to September 30, 2017. A copy of the NYCDEP sewer discharge permit and treatment system design specifications are provided in Appendix P.

EBC collected a waste characterization sample from the sediment that had accumulated within the frac tank on June 2, 2016. A formal disposal request letter was forwarded to Cycle Chem, Inc. on June 9, 2016, that documented how the sediment/sludge was generated, how the waste characterization sample was collected, and included a copy of the laboratory report for the waste characterization sample. A formal acceptance letter was issued by Cycle Chem, Inc. on June 20, 2016. On June 10, 2016, the sediment was removed from the frac tank by Clean Venture, Inc. utilizing a Vactor truck, and transported to Cycle Chem, Inc. located at 217 South First Street, Elizabeth, New Jersey 07026. A copy of the disposal request and acceptance letters is included in Appendix Q. A copy of the manifest/scale ticket for the sediment/sludge removed from the frac

tank is also included in Appendix Q. A final cleaning of the frac tank will be required upon termination of the dewatering system.

4.3.5 Disposal Summary

The table provided below shows the total quantities of each category of material removed from the Site and the disposal location.

Table 2. Off-Site Disposal Summary

Disposal Facility	D008 Hazardous Lead Soil (Tons)	Historic Fill Material (Tons)
Clean Earth of North Jersey 115 Jacobus Avenue, Kearny, NJ 07032	6,088.21	-
Bayshore Soil Management, LLC 75 Crows Mill Road, Keasbey, NJ 08832	-	635.75
Clean Earth of Carteret 24 Middlesex Avenue, Carteret, NJ 07008	-	2,977.75

4.4 REMEDIAL PERFORMANCE SAMPLING

4.4.1 Site-Wide Endpoint Sampling

The RAWP specified the collection and laboratory analysis of 16 endpoint samples (EP1 through EP16) following excavation to verify that remedial goals had been achieved. Each of the endpoint verification soil samples were collected at the final excavation depth required for building construction to verify that remedial goals had been achieved. The collection location of each of the endpoint verification soil samples is shown on Figure 6. In accordance with DER-10, the sixteen endpoint verification soil samples meet the sampling frequency of one per 900 ft². Each of the endpoint soil samples were submitted to Phoenix for laboratory for analysis of TCL VOCs and SVOCs according to EPA methods 8260 and 8270, chlorinated herbicides, organophosphate pesticides, pesticides/PCBs by EPA Method 8081/ 8082 and TAL metals with Category B Deliverables.

Some VOCs were detected slightly above Unrestricted Use SCOs within endpoint soil samples EP12 (benzene 260 µg/Kg, ethylbenzene 3,700 µg/Kg, m&p xylenes 900 µg/Kg, o-xylene 910 µg/Kg) and EP16 (benzene 66 µg/Kg). In addition, some metals were detected slightly above Unrestricted Use SCOs within endpoint soil samples EP3 (chromium 46.3 mg/kg, zinc 156

mg/kg), EP8 (Zinc 150 mg/kg), and EP15 (mercury 0.21 mg/kg). Approximately 6 to 12 inches of soil was removed from each of the endpoint soil sample collection locations, and the endpoint soil samples were recollected and submitted for laboratory analysis. The results of the 16 endpoint soil samples collected after the removal of clean native soil for construction of new building (and the follow-up endpoint samples) confirms that all soil remaining at the Site meets Unrestricted Use SCOs.

A copy of each of the laboratory reports is attached in Appendix M. The results are summarized and compared to NYSDEC Part 375.6 Unrestricted Use SCOs and Restricted Residential Use SCOs in Tables 9 through 14. Data Usability Summary Reports (DUSRs) were prepared for all data generated in this remedial performance evaluation program. These DUSRs are included in Appendix N.

4.5 IMPORTED BACKFILL

Approximately 120 cubic yards of ¾” limestone (ASTM #57) was imported to the Site for use as backfill the over excavated areas. This material was purchased from New York Sand & Stone, Inc. located at 75 25th Street, Brooklyn, New York 11232. The source of the ¾” limestone is the Lafarge Ravena Plant located in Ravena, New York. A formal request for use of the ¾” limestone was sent to the NYSDEC, and a written approval was issued. Copies of each of the truck tickets and each of the facility receipts are attached in Appendix O. No other material was imported to the Site for use as permanent backfill within the boundaries of the Site. A table of all sources of imported backfill with quantities for each source is provided in the table below.

Source	Material Type	Quantity	Area Used
New York Sand & Stone, LLC Source: Lafarge Ravena Plant in Ravena, New York	¾” Limestone	120 yd ³	Backfill over excavated areas

4.6 CONTAMINATION REMAINING AT THE SITE

4.6.1 Soil

The results of endpoint samples collected after excavation was completed confirms that all soil at the Site meets Track 1 Unrestricted Use Soil Cleanup Objectives and no residual contamination remains at the Site.

4.6.2 Soil Vapor

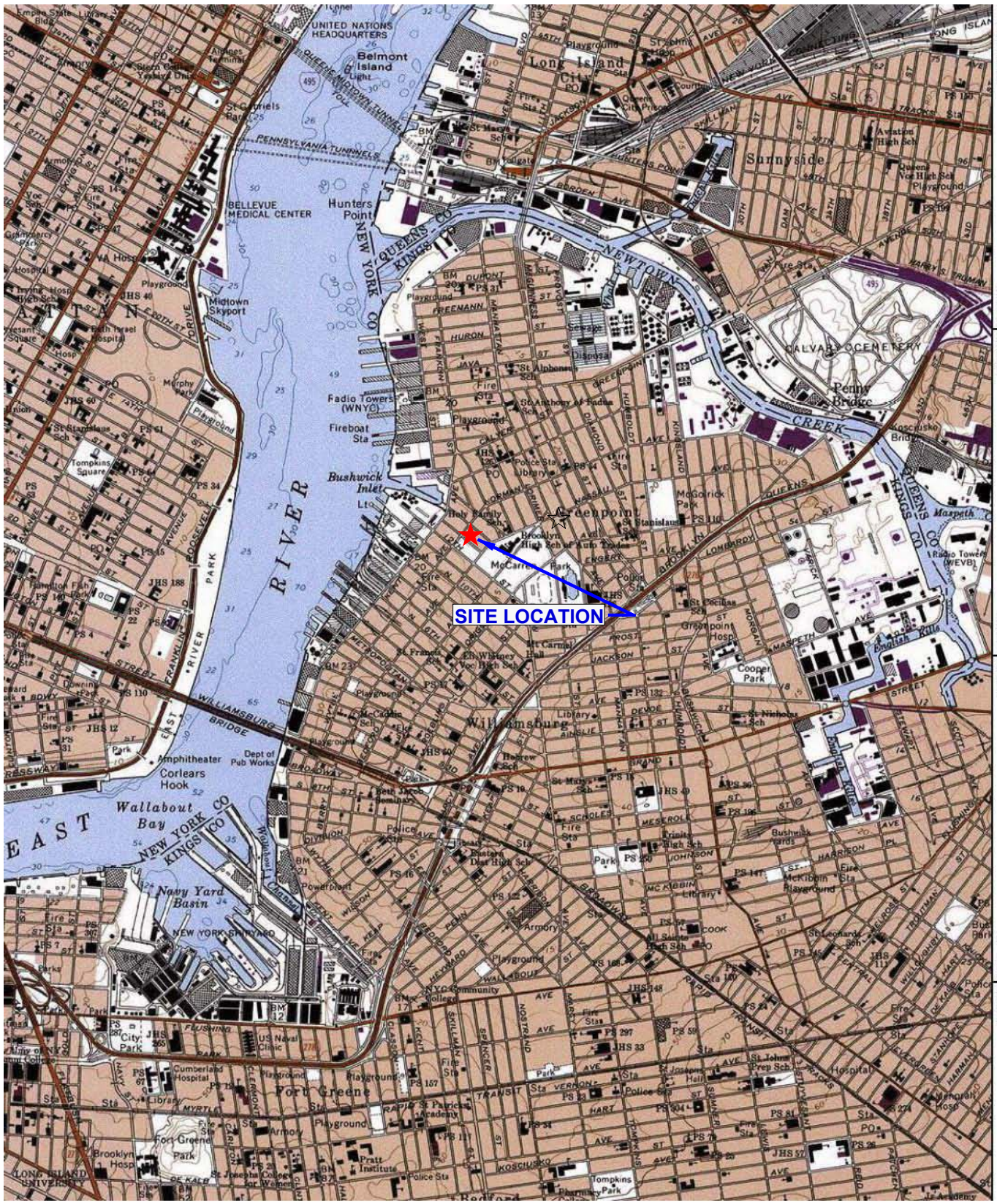
A soil vapor intrusion evaluation was completed and based on that evaluation, no additional actions are need to address soil vapor intrusion at the Site. All contaminated soil at the Site has been removed and the construction methods used for the new building have reduced the potential for soil vapor intrusion. As part of construction, a 47-mil waterproofing membrane (Grace Preprufe[®] 300R) was installed below the new building's 2 ft thick mat slab and a 32-mil waterproofing membrane (Grace Preprufe[®] 160R) was installed behind all cellar foundation walls to grade. No further action is needed to address soil vapor intrusion as a result of the Site remediation and construction elements of the new building.

4.7 DEVIATIONS FROM THE REMEDIAL ACTION WORK PLAN

- Additional “hotspot excavations were performed across each of the 900 ft² endpoint Grid Sections for EP3, EP8, EP12, and EP16 based on the results of the initial samples at these locations which indicated exceedances of Unrestricted Use SCOs.

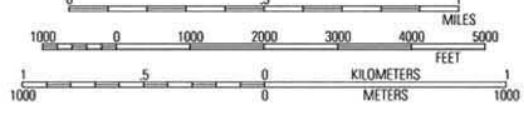
No other significant deviations from the NYSDEC approved Remedial Action Work Plan were performed.

FIGURES

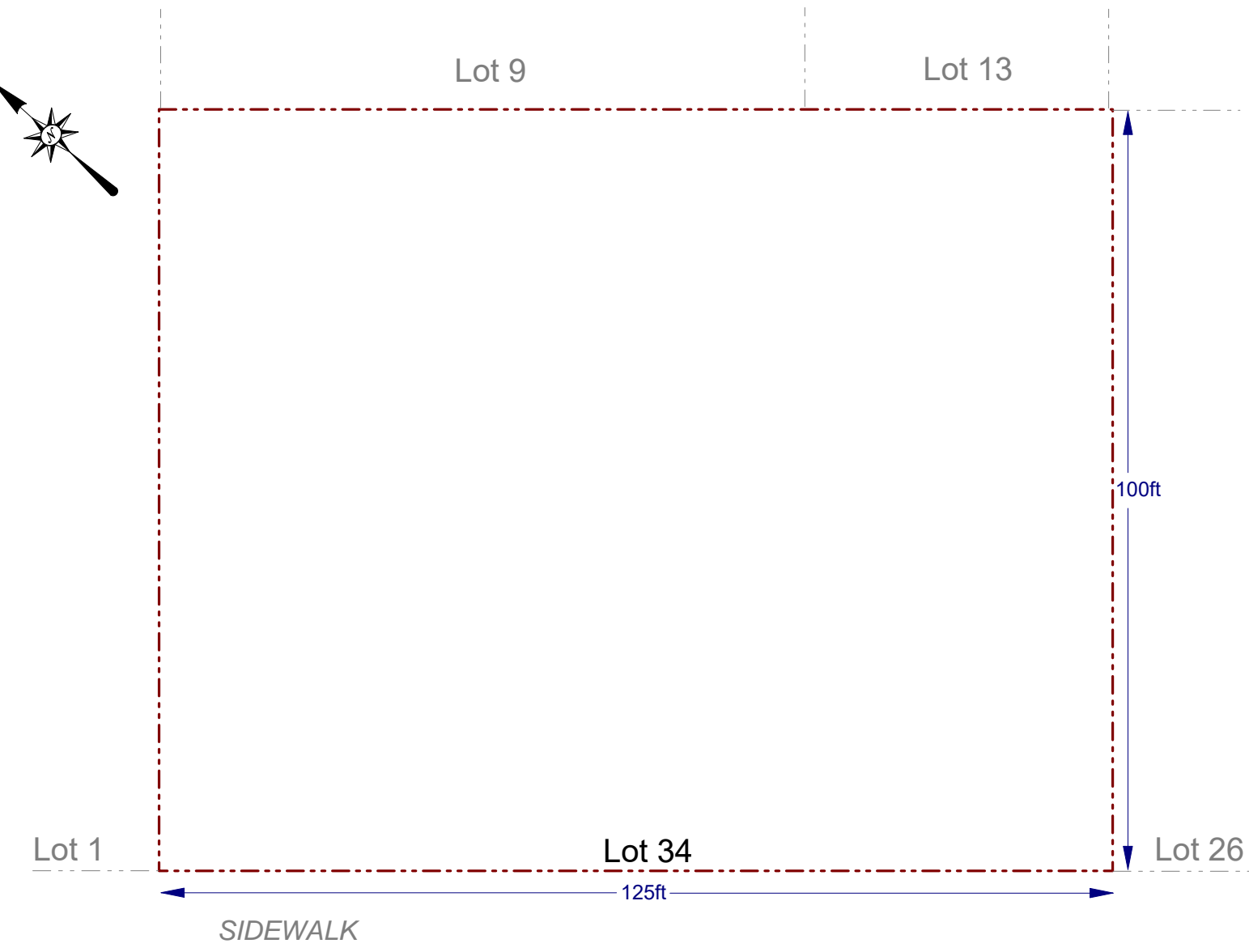
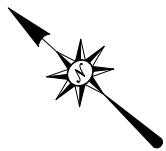


40°45.000' N
40°44.000' N
40°43.000' N
40°42.000' N

73°59.000' W 73°58.000' W 73°57.000' W WGS84 73°56.000' W



MN ↑ TN
13°
06/04/11



NORTH 13TH STREET

KEY:

 Property Boundary

SCALE:

0 10 20

Scale: 1 inch = 20 feet



ENVIRONMENTAL BUSINESS CONSULTANTS

Phone 631.504.6000
Fax 631.924.2870

Figure No.

2

Site Name: **FORMER F&S CENTRAL MANUFACTURING SITE**

Site Address: **103 NORTH 13TH STREET, BROOKLYN, NY**

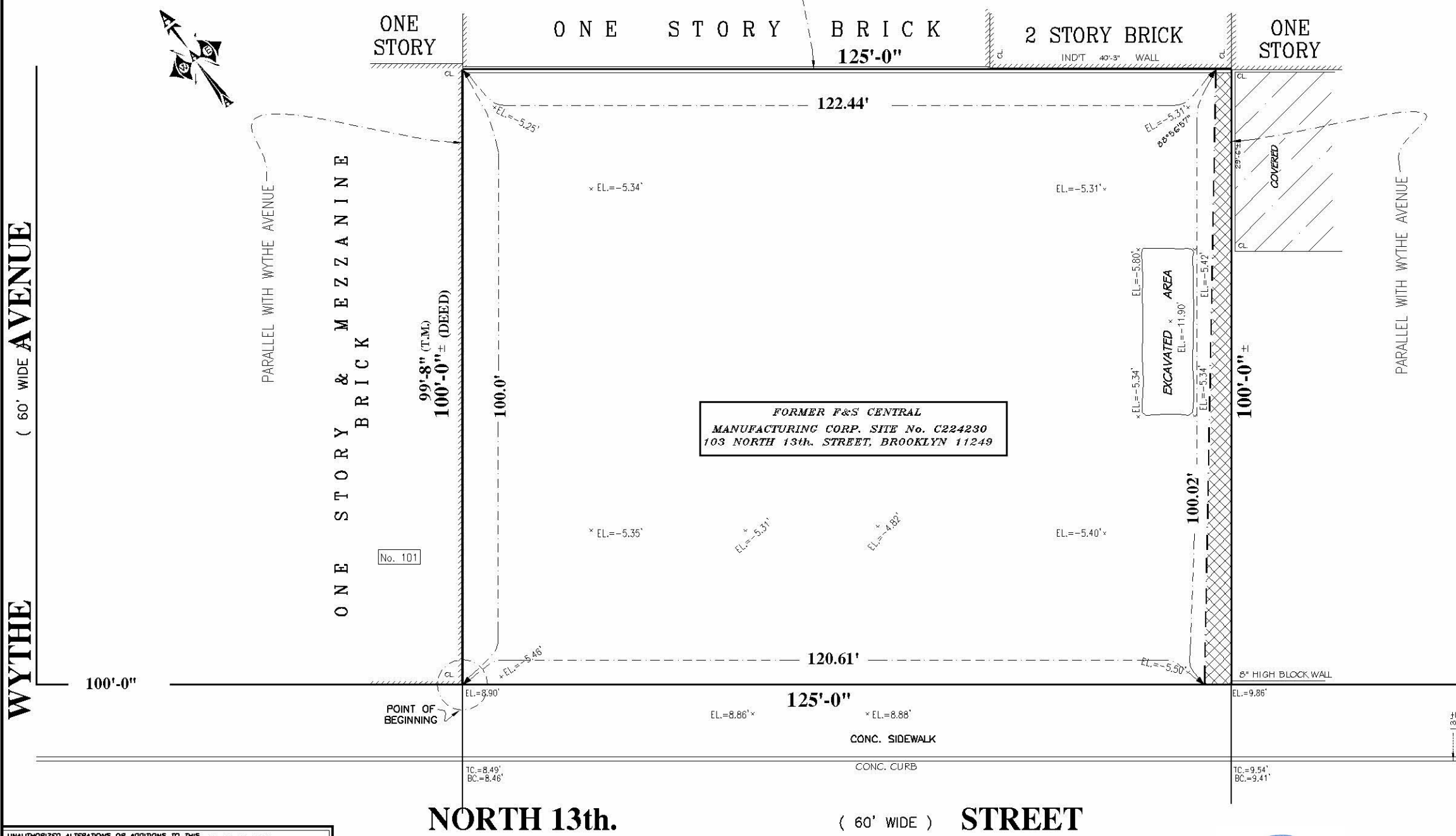
Drawing Title: **SITE BOUNDARY MAP**

LEGEND
(NOT FOR TITLE PURPOSES)
JOB # 2279K34 easement

CL CLEAR | L.A. LOW AREA | W.W. WINDOW WELL | C.D. CELLAR DOOR | LEGEND | F.E. FIRE ESCAPE | ENT.UND. ENT. UNDER | A. AREAWAY | RT. RIGHT

UTILITY POLE | PHONE TEL. | WATER VALVE | S.W.S. WATER | TEL. MANHOLE | SENSOR MANHOLE | ELECTRIC MANHOLE

DEED LOT AREA 12,500 SQ. Ft	C224230 SITE AREA 12,152.34 SQ. Ft	EXCLUDED AREA 347.66 SQ.FT
---------------------------------------	----------------------------------------------	--------------------------------------



Schedule A
Legal Description for Section 8 Block 2279 Lot34,

All that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the northwesterly side of North 13th. Street distant 100 feet easterly from the corner formed by the intersection of the northerly side of North 13th. Street and the easterly side of White Avenue;

RUNNING THENCE Northerly parallel with White Avenue 100 feet more or less to the center line of a party wall erected partly on the premises herein described and partly on the premises adjoining on the north;

THENCE Easterly parallel with North 13th. Street and part of the distance through said party wall 125 feet;

THENCE Southerly again parallel with White Avenue 100 feet more or less to the northerly side of North 13th. Street and;

THENCE westerly along the northerly side of North 13th. Street 125 feet to the point or place of BEGINNING.

AREA OF LOT = 12,500 SQ. Ft = 0.28696 ACRES

METES AND BOUNDS DESCRIPTION
SCHEDULE 'B' C224230 SITE AREA

All that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the northwesterly side of North 13th. Street, distant 100.00 feet easterly from the corner formed by the intersection of North 13th. Street and White Avenue;

RUNNING THENCE Northerly parallel with White Avenue, 100.00 feet;

THENCE Easterly parallel with North 13th. Street, 122.44 feet;

THENCE Southerly with a line forming interior angle of 88° 56' 57" with the last course, 100.02 feet to the northerly side of North 13th. Street and;

THENCE westerly along the northerly side of North 13th. Street 120.61 feet to the point or place of BEGINNING.

AREA = 12,152.34 SQ. Ft = 0.2790 ACRES

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS SURVEY IS A VIOLATION OF SECTION 7208 OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY. GUARANTEES OR CERTIFICATIONS INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON, AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. GUARANTEES OR CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

SURVEYED : SEPTEMBER 14, 2017
AMENDED: 09-26-17
UPDATED :
SCALE: 1"=20'
BLOCK: 2279
LOT(S): 34
SECTION: 8
COUNTY: KINGS
DWG BY: AAA.J

AAA GROUP
LAND SURVEYORS SERVICES
139 LORIMER STREET
BROOKLYN, N.Y. 11206
TEL (718) 387-9800, FAX 384-5050



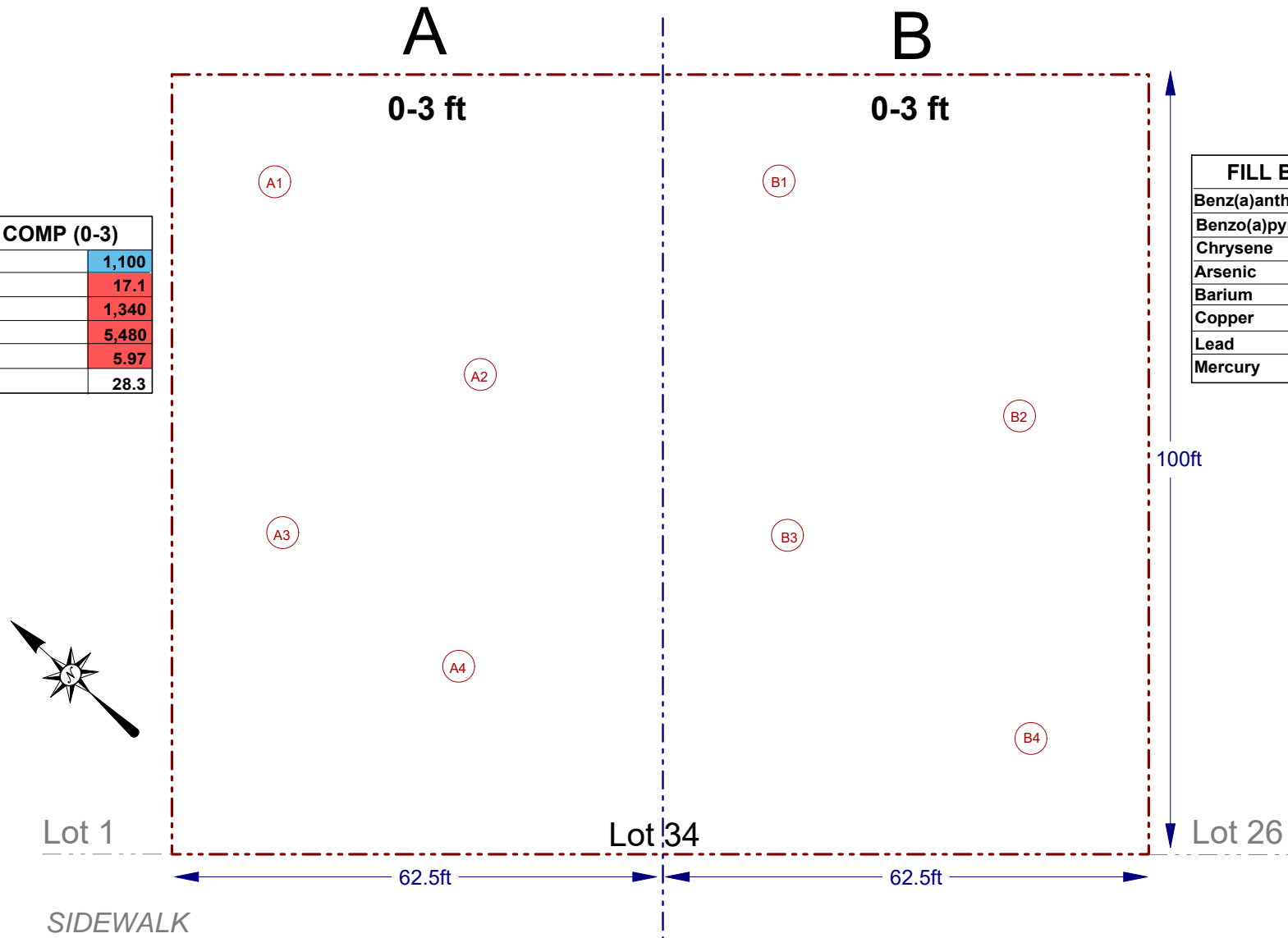
Certified Only To: NYSDEC

FIGURE 3

GRAPHIC SCALE
0' 10' 20' 30' 40'

FILL A COMP (0-3)	
Chrysene	1,100
Arsenic	17.1
Barium	1,340
Lead*	5,480
Mercury	5.97
TCLP Lead*	28.3

FILL B COMP (0-3)	
Benz(a)anthracene	1,700
Benzo(a)pyrene	1,700
Chrysene	1,900
Arsenic	18
Barium	979
Copper	278
Lead	4,160
Mercury	4.47






SIDEWALK

NORTH 13TH STREET

SVOCs Reported in PPB
Metals Reported in PPM

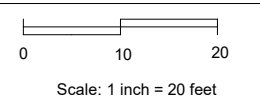
Waste Characterization Soil Samples representing 0-3ft
were collected on 9/3/2015 and 9/4/2015

KEY:

-  Property Boundary
-  Commercial SCO Exceedance
-  Protection of Groundwater SCO exceedance

* TCLP Lead Concentration Greater than 5.0 mg/L

SCALE:



FILL A (4-8)	
Arsenic	21.5
Barium	1,750
Copper	405
Lead	9,490
Mercury	902
TCLP Lead (HAZ)*	14.9

FILL A (8-12)	
Benz(a)anthracene	1,200
Benzo(a)pyrene	1,100
Chrysene	1,300
Mercury	3.47

FILL A (12-16)	
Benz(a)anthracene	5,100
Benzo(b)fluoranthene	4,700
Benzo(k)fluoranthene	4,600
Chrysene	6,900
Dibenzo(a,h)anthracene	750
Lead	1,050
Mercury	16.8
TCLP Lead (HAZ)*	5.84

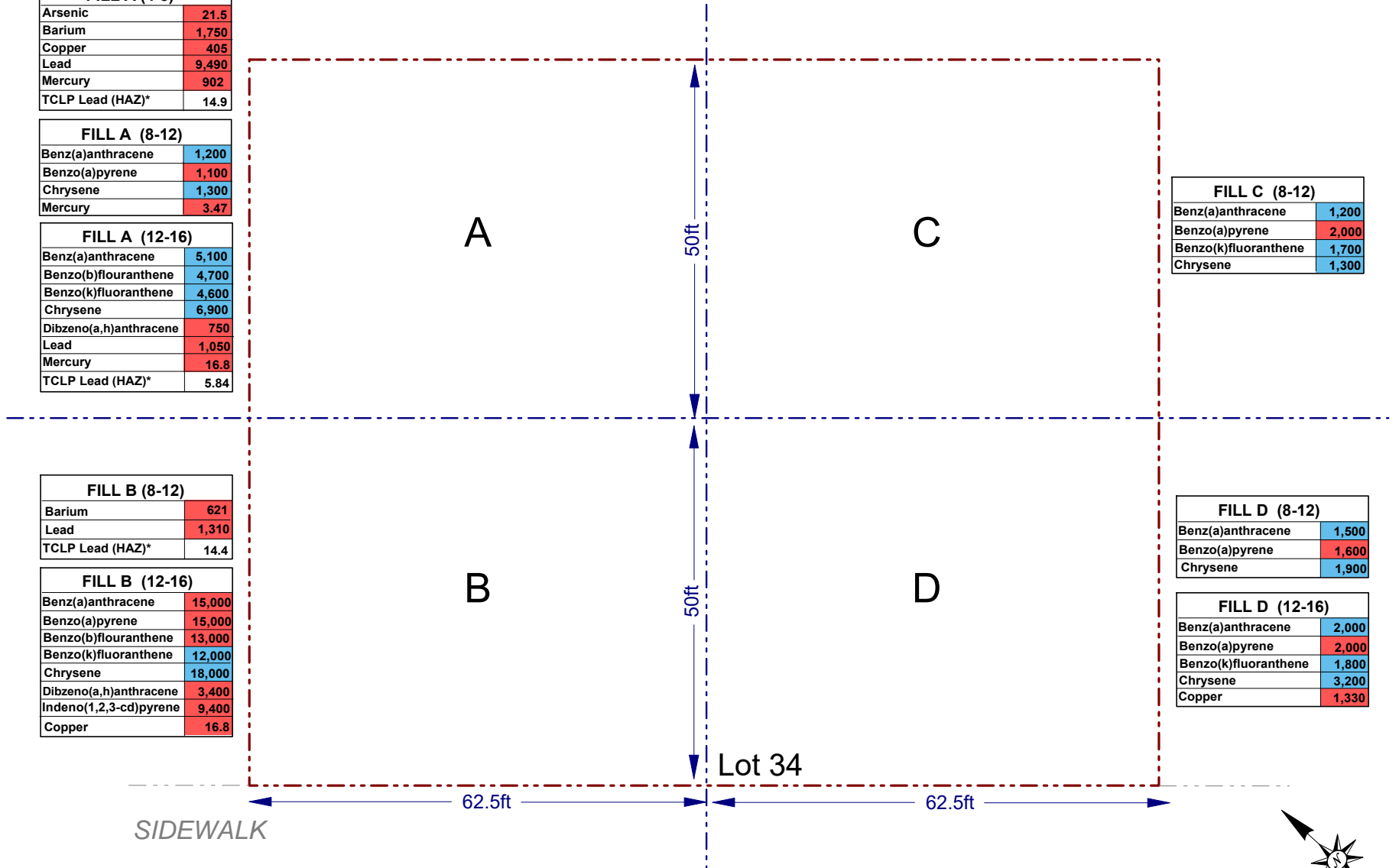
FILL B (8-12)	
Barium	621
Lead	1,310
TCLP Lead (HAZ)*	14.4

FILL B (12-16)	
Benz(a)anthracene	15,000
Benzo(a)pyrene	15,000
Benzo(b)fluoranthene	13,000
Benzo(k)fluoranthene	12,000
Chrysene	18,000
Dibenzo(a,h)anthracene	3,400
Indeno(1,2,3-cd)pyrene	9,400
Copper	16.8

FILL C (8-12)	
Benz(a)anthracene	1,200
Benzo(a)pyrene	2,000
Benzo(k)fluoranthene	1,700
Chrysene	1,300

FILL D (8-12)	
Benz(a)anthracene	1,500
Benzo(a)pyrene	1,600
Chrysene	1,900

FILL D (12-16)	
Benz(a)anthracene	2,000
Benzo(a)pyrene	2,000
Benzo(k)fluoranthene	1,800
Chrysene	3,200
Copper	1,330



NORTH 13TH STREET

SVOCs Reported in PPB
Metals Reported in PPM

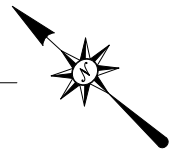
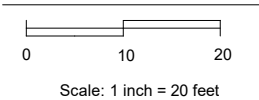
Waste Characterization Soil Samples representing 0-4ft
4-8ft, 8-12ft, and 12-16ft were collected on 9/17/2015

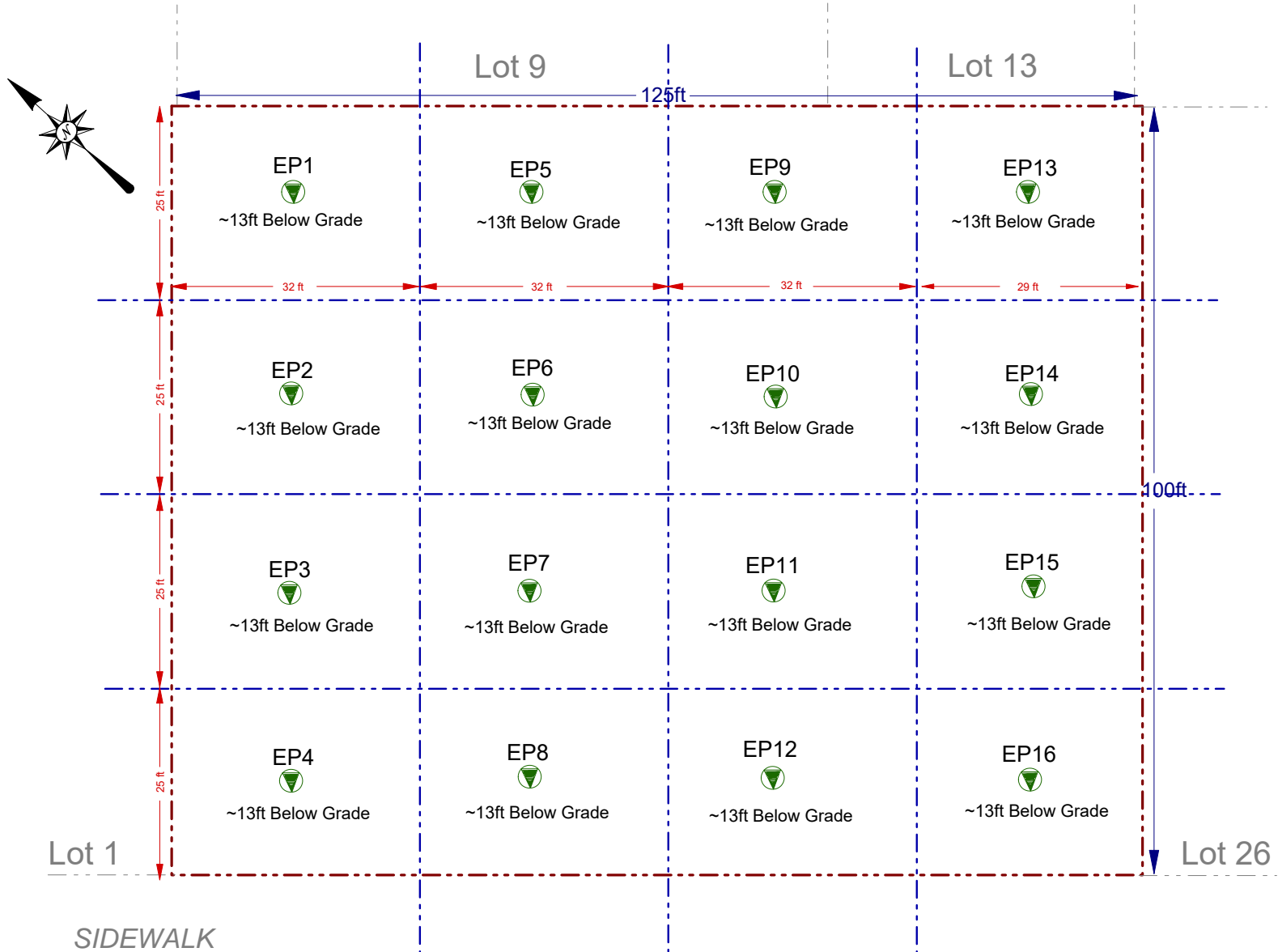
KEY:

- Property Boundary
- Commercial SCO Exceedance
- Protection of Groundwater SCO exceedance

* TCLP Lead Concentration Greater than 5.0 mg/L

SCALE:

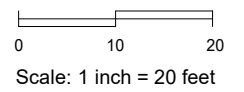




KEY:

- Property Boundary
- Endpoint Sampling Location

SCALE:



<p>ENVIRONMENTAL BUSINESS CONSULTANTS</p> <p>Phone 631.504.6000 Fax 631.924.2870</p>	<p>Figure No.</p> <p>6</p>	<p>Site Name: FORMER F&S CENTRAL MANUFACTURING SITE</p>
	<p>Site Address: 103 NORTH 13TH STREET, BROOKLYN, NY</p>	
	<p>Drawing Title: ENDPOINT SAMPLING LOCATIONS</p>	

TABLES

TABLE 1
Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health		Unrestricted Use
		Restricted-Residential	Commercial	
METALS				
Arsenic	7440-38 -2	16f	16f	13 ^c
Barium	7440-39 -3	400	400	350 ^c
Beryllium	7440-41 -7	72	590	7.2
Cadmium	7440-43 -9	4.3	9.3	2.5 ^c
Chromium, hexavalent ^h	18540-29-9	110	400	1 ^b
Chromium, trivalent ^h	16085-83-1	180	1,500	30 ^c
Copper	7440-50 -8	270	270	50
Total Cyanide ^h		27	27	27
Lead	7439-92 -1	400	1,000	63 ^c
Manganese	7439-96 -5	2,000f	10,000 d	1600 ^c
Total Mercury		0.81j	2.8j	0.18 ^c
Nickel	7440-02 -0	310	310	30
Selenium	7782-49 -2	180	1,500	3.9 ^f
Silver	7440-22 -4	180	1,500	2
Zinc	7440-66 -6	10,000 d	10,000 d	109 ^c
PESTICIDES / PCBs				
2,4,5-TP Acid (Silvex)	93-72-1	100a	500b	3.8
4,4'-DDE	72-55-9	8.9	62	0.0033 ^b
4,4'-DDT	50-29-3	7.9	47	0.0033 ^b
4,4'-DDD	72-54-8	13	92	0.0033 ^b
Aldrin	309-00-2	0.097	0.68	0.005 ^c
alpha-BHC	319-84-6	0.48	3.4	0.02
beta-BHC	319-85-7	0.36	3	0.036
Chlordane (alpha)	5103-71 -9	4.2	24	0.094
delta-BHC	319-86-8	100a	500b	0.04
Dibenzofuran	132-64-9	59	350	7
Dieldrin	60-57-1	0.2	1.4	0.005 ^c
Endosulfan I	959-98-8	24i	200i	2.4
Endosulfan II	33213-65-9	24i	200i	2.4
Endosulfan sulfate	1031-07 -8	24i	200i	2.4
Endrin	72-20-8	11	89	0.014
Heptachlor	76-44-8	2.1	15	0.042
Lindane	58-89-9	1.3	9.2	0.1
Polychlorinated biphenyls	1338-36 -3	1	1	0.1
SEMI-VOLATILES				
Acenaphthene	83-32-9	100a	500b	20
Acenaphthylene	208-96-8	100a	500b	100 ^a
Anthracene	120-12-7	100a	500b	100 ^a
Benzo(a)anthracene	56-55-3	1f	5.6	1 ^c
Benzo(a)pyrene	50-32-8	1f	1f	1 ^c
Benzo(b) fluoranthene	205-99-2	1f	5.6	1 ^c
Benzo(g,h,i) perylene	191-24-2	100a	500b	100
Benzo(k) fluoranthene	207-08-9	3.9	56	0.8 ^c
Chrysene	218-01-9	3.9	56	1 ^c
Dibenz(a,h) anthracene	53-70-3	0.33e	0.56	0.33 ^b
Fluoranthene	206-44-0	100a	500b	100 ^a
Fluorene	86-73-7	100a	500b	30
Indeno(1,2,3-cd) pyrene	193-39-5	0.5f	5.6	0.5 ^c
m-Cresol	108-39-4	100a	500b	0.33 ^b
Naphthalene	91-20-3	100a	500b	12
o-Cresol	95-48-7	100a	500b	0.33 ^b
p-Cresol	106-44-5	100a	500b	0.33 ^b
Pentachlorophenol	87-86-5	6.7	6.7	0.8 ^b
Phenanthrene	85-01-8	100a	500b	100
Phenol	108-95-2	100a	500b	0.33 ^b
Pyrene	129-00-0	100a	500b	100

Contaminant	CAS Number	Protection of Public Health		Unrestricted Use
		Restricted-Residential	Commercial	
VOLATILES				
1,1,1-Trichloroethane	71-55-6	100a	500b	0.68
1,1-Dichloroethane	75-34-3	26	240	0.27
1,1-Dichloroethene	75-35-4	100a	500b	0.33
1,2-Dichlorobenzene	95-50-1	100a	500b	1.1
1,2-Dichloroethane	107-06-2	3.1	30	0.02 ^c
cis-1,2-Dichloroethene	156-59-2	100a	500b	0.25
trans-1,2-Dichloroethene	156-60-5	100a	500b	0.19
1,3-Dichlorobenzene	541-73-1	49	280	2.4
1,4-Dichlorobenzene	106-46-7	13	130	1.8
1,4-Dioxane	123-91-1	13	130	0.1 ^b
Acetone	67-64-1	100b	500b	0.05
Benzene	71-43-2	4.8	44	0.06
Butylbenzene	104-51-8	100a	500b	12
Carbon tetrachloride	56-23-5	2.4	22	0.76
Chlorobenzene	108-90-7	100a	500b	1.1
Chloroform	67-66-3	49	350	0.37
Ethylbenzene	100-41-4	41	390	1
Hexachlorobenzene	118-74-1	1.2	6	0.33 ^b
Methyl ethyl ketone	78-93-3	100a	500b	0.12
Methyl tert-butyl ether	1634-04 -4	100a	500b	0.93
Methylene chloride	75-09-2	100a	500b	0.05
n-Propylbenzene	103-65-1	100a	500b	3.9
sec-Butylbenzene	135-98-8	100a	500b	11
tert-Butylbenzene	98-06-6	100a	500b	5.9
Tetrachloroethene	127-18-4	19	150	1.3
Toluene	108-88-3	100a	500b	0.7
Trichloroethene	79-01-6	21	200	0.47
1,2,4-Trimethylbenzene	95-63-6	52	190	3.6
1,3,5-Trimethylbenzene	108-67-8	52	190	8.4
Vinyl chloride	75-01-4	0.9	13	0.02
Xylene (mixed)	1330-20 -7	100a	500b	0.26

All soil cleanup objectives (SCOs) are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD). Footnotes
a The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.
b The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.
c The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.
d The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.
e For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

TABLE 3
 103 North 13th Street
 Brooklyn, New York
 Waste Characterization
 Sampling Summary

Matrix	Location	Number of Samples	Rationale for Sampling	Laboratory Analysis
Surface soil (0 to 3 feet bgs)	4 test pits on the northwestern half of the Site and 4 test pits on the southeastern half of the Site (Grid Sections A & B).	2	To evaluate soil quality of urban fill materials and native soil across the Site.	SVOCs EPA Method 8270, pesticide / PCBs EPA Method 8081/8082, TPH, GRH, TAL metals, hexavalent chromium, TCLP metals, RCRA characteristics.
Surface soil (0 to 3 feet bgs)	1 grab sample from the test pit with the highest PID reading on the northwestern half of the Site and 1 grab sample from the test pit with the highest PID reading on the southeastern half of the Site (Grid Sections A & B).	2	To evaluate soil quality of urban fill materials and native soil across the Site.	VOCs EPA Method 8260B
Subsurface soil (4 to 8 feet bgs)	Composite sample from 5 test pits within each Grid Section on the Site (A, B, C, and D).	4	To evaluate soil quality of urban fill materials and native soil across the Site.	SVOCs EPA Method 8270, pesticide / PCBs EPA Method 8081/8082, Herbicides, TAL metals, hexavalent chromium, TCLP metals, total EPH, RCRA characteristics.
Subsurface soil (8 to 12 feet bgs)	Composite sample from 5 test pits within each Grid Section on the Site (A, B, C, and D).	4	To evaluate soil quality of urban fill materials and native soil across the Site.	SVOCs EPA Method 8270, pesticide / PCBs EPA Method 8081/8082, Herbicides, TAL metals, hexavalent chromium, TCLP metals, total EPH, RCRA characteristics.
Subsurface soil (12 to 16 feet bgs)	Composite sample from 5 test pits within each Grid Section on the Site (A, B, C, and D).	4	To determine whether there was contamination present in the soil at the final excavation depth.	SVOCs EPA Method 8270, pesticide / PCBs EPA Method 8081/8082, Herbicides, TAL metals, hexavalent chromium, TCLP metals, total EPH, RCRA characteristics.
Grid Section Grab (12 to 16 feet bgs)	1 grab sample from the test pit with the highest PID reading from each Grid Section (A, B, C, and D) on Site at the final excavation depth.	4	To determine whether there was contamination present in the soil at the final excavation depth.	TPH, GRH, VOCs EPA Method 8260
Total (Soils)		20		

TABLE 4
105 North 13th Street
Brooklyn, New York
Waste Characterization Soil Sample Analytical Results
Fill Material
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	Fill A Grab (0-3)		Fill B Grab (0-3)		Fill A Grab (12-16)		Fill B Grab (12-16)		Fill C Grab (12-16)		Fill D Grab (12-16)	
			9/4/2015		9/3/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane			< 23	23	< 24	24	< 57	57	< 1300	1,300	< 1200	1,200	< 28	28
1,1,1-Trichloroethane	680	100,000	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,1,2,2-Tetrachloroethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,1,2-Trichloroethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,1-Dichloroethane	270	26,000	< 5.7	5.7	< 6.0	6.0	< 250	250	< 25	25	< 250	250	< 6.9	6.9
1,1-Dichloroethylene	330	100,000	< 5.7	5.7	< 6.0	6.0	< 300	300	< 320	320	< 300	300	< 6.9	6.9
1,1-Dichloropropene			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,2,3-Trichlorobenzene			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,2,3-Trichloropropane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,2,4-Trichlorobenzene			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,2,4-Trimethylbenzene	3,600	52,000	< 5.7	5.7	< 6.0	6.0	99	390	51	320	< 300	300	< 6.9	6.9
1,2-Dibromo-3-chloropropane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,2-Dibromoethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,2-Dichlorobenzene	1,100	100,000	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,2-Dichloroethane	20	3,100	< 5.7	5.7	< 6.0	6.0	< 39	39	< 32	32	< 30	30	< 6.9	6.9
1,2-Dichloropropane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,3,5-Trimethylbenzene	8,400	52,000	< 5.7	5.7	< 6.0	6.0	< 390	390	58	320	< 300	300	< 6.9	6.9
1,3-Dichlorobenzene	2,400	49,000	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,3-Dichloropropane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,4-Dichlorobenzene	1,800	13,000	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
1,4-Dioxane			< 100	100	< 100	100	< 280	280	< 6500	6,500	< 6000	6,000	< 100	100
2,2-Dichloropropane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
2-Chlorotoluene			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
2-Hexanone			< 28	28	< 30	30	< 2000	2,000	< 1600	1,600	< 1500	1,500	< 35	35
2-Isopropyltoluene			< 5.7	5.7	< 6.0	6.0	150	390	64	320	66	300	< 6.9	6.9
4-Chlorotoluene			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
4-Methyl-2-pentanone			< 28	28	< 30	30	< 2000	2,000	< 1600	1,600	< 1500	1,500	< 35	35
Acetone	50	100,000	< 50	50	< 50	50	< 390	390	< 320	320	< 300	300	75	50
Acrolein			< 23	23	< 24	24	< 57	57	< 1300	1,300	< 1200	1,200	< 28	28
Acrylonitrile			< 23	23	< 24	24	< 57	57	< 1300	1,300	< 1200	1,200	< 28	28
Benzene	60	4,800	< 5.7	5.7	< 6.0	6.0	< 60	60	< 60	60	< 60	60	< 6.9	6.9
Bromobenzene			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Bromochloromethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Bromodichloromethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Bromoform			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Bromomethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Carbon disulfide			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	3.1	6.9
Carbon tetrachloride	760	2,400	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Chlorobenzene	1,100	100,000	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Chloroethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Chloroform	370	49,000	< 5.7	5.7	< 6.0	6.0	< 350	350	< 320	320	< 300	300	< 6.9	6.9
Chloromethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
cis-1,2-Dichloroethylene	250	100,000	< 5.7	5.7	< 6.0	6.0	< 250	250	< 250	250	< 250	250	< 6.9	6.9
cis-1,3-Dichloropropylene			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Dibromochloromethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Dibromomethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Dichlorodifluoromethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Ethyl Benzene	1,000	41,000	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Hexachlorobutadiene			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Isopropylbenzene			< 5.7	5.7	< 6.0	6.0	53	390	150	320	150	300	< 6.9	6.9
m&p Xylenes	260	100,000	< 5.7	5.7	< 6.0	6.0	< 390	390	110	320	< 300	300	< 6.9	6.9
Methyl Ethyl Ketone	120	100,000	< 34	34	< 36	36	< 390	390	< 320	320	< 300	300	< 41	41
Methyl tert-butyl ether (MTBE)	930	100,000	< 11	11	< 12	12	< 780	780	< 650	650	< 600	600	< 14	14
Methylene chloride	50	100,000	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Naphthalene	12,000	100,000	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	130	300	< 6.9	6.9
n-Butylbenzene	12,000	100,000	< 5.7	5.7	< 6.0	6.0	< 390	390	97	320	67	300	< 6.9	6.9
n-Propylbenzene	3,900	100,000	< 5.7	5.7	< 6.0	6.0	< 390	390	180	320	230	300	< 6.9	6.9
o-Xylene	260	100,000	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
p-Isopropyltoluene			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
sec-Butylbenzene	11,000	100,000	< 5.7	5.7	< 6.0	6.0	120	390	140	320	170	300	< 6.9	6.9
Styrene			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
tert-Butyl alcohol (TBA)			< 110	110	< 120	120	< 280	280	< 6500	6,500	< 6000	6,000	< 140	140
tert-Butylbenzene	5,900	100,000	< 5.7	5.7	< 6.0	6.0	54	390	36	320	36	300	4.2	6.9
Tetrachloroethylene	1,300	19,000	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Tetrahydrofuran (THF)			< 11	11	< 12	12	< 780	780	< 650	650	< 600	600	< 14	14
Toluene	700	100,000	< 5.7	5.7	< 6.0	6.0	< 390	390	43	320	< 300	300	< 6.9	6.9
trans-1,2-Dichloroethylene	190	100,000	< 5.7	5.7	< 6.0	6.0	< 150	150	< 150	150	< 150	150	< 6.9	6.9
trans-1,3-Dichloropropylene			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
trans-1,4-dichloro-2-butene			< 11	11	< 12	12	< 780	780	< 650	650	< 600	600	< 14	14
Trichloroethylene	470	21,000	< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Trichlorofluoromethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Trichlorotrifluoroethane			< 5.7	5.7	< 6.0	6.0	< 390	390	< 320	320	< 300	300	< 6.9	6.9
Vinyl Chloride	20	900	< 5.7	5.7	< 6.0	6.0	< 390	390	< 32	32	< 30	30	< 6.9	6.9
Total BTEX Concentration			0		0		0		153		0		<	

TABLE 5
105 North 13th Street
Brooklyn, New York
Waste Characterization Soil Sample Analytical Results
Fill Material
Semi-Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	Fill A Comp (0-3)		Fill B Comp (0-3)		Fill A (4-8)		Fill A (8-12)		Fill A (12-16)		Fill B (4-8)		Fill B (8-12)		Fill B (12-16)		Fill C (4-8)		Fill C (8-12)		Fill C (12-16)		Fill D (4-8)		Fill D (8-12)		Fill D (12-16)	
			9/4/2015		9/3/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1'-Biphenyl			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2900	2,900	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
1,2,4-Trichlorobenzene			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
1,2,4,5-Tetrachlorobenzene			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
1,2-Dichlorobenzene			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
1,2-Diphenyldiazine (as Azobenzene)			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
1,3-Dichlorobenzene			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
1,4-Dichlorobenzene			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2,3,4,6-Tetrachlorophenol			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2,4,5-Trichlorophenol			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2,4,6-Trichlorophenol			< 160	160	< 160	160	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2,4-Dichlorophenol			< 160	160	< 160	160	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2,4-Dimethylphenol			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2,4-Dinitrophenol			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2,6-Dinitrotoluene			< 160	160	< 160	160	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2-Chloronaphthalene			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2-Chlorophenol			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2-Methylnaphthalene			< 270	270	< 270	270	< 310	310	< 270	270	300	310	< 260	260	170	270	< 2800	2,800	< 270	270	< 270	270	440	270	< 260	260	120	270	< 300	300
2-Methylphenol (o-Cresol)	330	100,000	< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2-Nitroanisole			< 200	200	< 190	190	< 880	880	< 770	770	< 800	900	< 730	730	< 770	770	< 8100	8,100	< 770	770	< 760	760	< 780	780	< 750	750	< 770	770	< 860	860
2-Nitrophenol			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.345)																														
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.351)			34,000	4	< 19,000	4																								
3- & 4-Methylphenols	330	100,000	< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
3,3'-Dichlorobenzidine			< 160	160	< 160	160	< 880	880	< 770	770	< 800	900	< 730	730	< 770	770	< 8100	8,100	< 770	770	< 760	760	< 780	780	< 750	750	< 770	770	< 860	860
3-Nitroanisole			< 200	200	< 190	190	< 880	880	< 770	770	< 800	900	< 730	730	< 770	770	< 8100	8,100	< 770	770	< 760	760	< 780	780	< 750	750	< 770	770	< 860	860
3-Penteno-2-one, 4-methyl- (RT 2.133)			520																											
4,6-Dinitro-2-methylphenol			< 270	270	< 270	270	< 310	310	< 2200	2,200	< 1900	1,900	< 2200	2,200	< 1800	1,800	< 2000	2,000	< 1900	1,900	< 1900	1,900	< 1900	1,900	< 1900	1,900	< 1900	1,900	< 2200	2,200
4-Bromophenyl phenyl ether			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
4-Chloro-3-methylphenol			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
4-Chloroanisole			< 760	760	< 760	760	< 350	350	< 310	310	< 360	360	< 290	290	< 310	310	< 3200	3,200	< 310	310	< 300	300	< 310	310	< 300	300	< 310	310	< 350	350
4-Chlorophenyl phenyl ether			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
4-Nitroanisole			< 2000	2,000	< 1900	1,900	< 880	880	< 770	770	< 800	900	< 730	730	< 770	770	< 8100	8,100	< 770	770	< 760	760	< 780	780	< 750	750	< 770	770	< 860	860
4-Nitrophenol			< 270	270	< 270	270	< 310	310	< 350	350	< 360	360	< 290	290	< 310	310	< 3200	3,200	< 310	310	< 300	300	< 310	310	< 300	300	< 310	310	< 350	350
Acenaphthene	20,000	100,000	< 270	270	170	270	< 440	440	< 390	390	< 450	450	< 360	360	< 380	380	< 4100	4,100	< 360	360	< 360	360	< 360	360	< 370	370	< 390	390	< 430	430
Acenaphthylene	100,000	100,000	< 160	160	200	160	< 310	310	< 270	270	210	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
Acetophenone			< 270	270	< 270	270	< 310	310	< 270	270	< 310	310	< 260	260	< 270	270	< 2800	2,800	< 270	270	< 270	270	< 270	270	< 260	260	< 270	270	< 300	300
Aniline			< 270	270	< 270	270	< 310	310	< 360	360	< 360	360	< 290	290	< 310	310	< 3200	3,200	< 310	310	< 300	300	< 310	310	< 300	300	< 310	310	< 350	350
Anthracene	100,000	100,000	320	270	530	270	290	310	560	270	1,900	310	< 260	260	430	270	4,600	2,800	< 270	270	280	270	< 270	270	< 260	260	310	270	740	300
Anthracene, 2-methyl- (RT 7.552)					530	4																								
Atrazine			< 160	160	< 160	160																								
Benzaldehyde			< 270	270	< 270	270																								
Benzidine			910	270	1,700	270</																								

TABLE 6
105 North 13th Street
Brooklyn, New York
Waste Characterization Soil Sample Analytical Results
Fill Material
Pesticides/PCBs/Chlorinated Herbicides

	PCBs	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	Fill A Comp (0-3)		Fill B Comp (0-3)		Fill A (4-8)		Fill A (8-12)		Fill A (12-16)		Fill B (4-8)		Fill B (8-12)		Fill B (12-16)		Fill C (4-8)		Fill C (8-12)		Fill C (12-16)		Fill D (4-8)		Fill D (8-12)		Fill D (12-16)					
				9/4/2015 ug/Kg		9/3/2015 ug/Kg		9/17/2015 ug/Kg		9/17/2015 ug/Kg		9/17/2015 ug/Kg		9/17/2015 ug/Kg		9/17/2015 ug/Kg		9/17/2015 ug/Kg		9/17/2015 ug/Kg		9/17/2015 ug/Kg		9/17/2015 ug/Kg		9/17/2015 ug/Kg		9/17/2015 ug/Kg		9/17/2015 ug/Kg					
				Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Pesticides	4,4'-DDD	3.3	13,000	<5.0	5.0	<2.6	2.6	<2.3	2.3	<2.2	2.2	<2.2	2.2	<2.2	2.2	<2.2	2.2	<2.1	2.1	<2.3	2.3	<5.0	5.0	<2.2	2.2	<2.3	2.3	<2.2	2.2	<2.3	2.3	<2.6	2.6		
	4,4'-DDE	3.3	8,900	<2.3	2.3	<5.0	5.0	<2.6	2.6	<2.3	2.3	<2.2	2.2	<2.2	2.2	<2.2	2.2	<2.2	2.2	<2.3	2.3	<8.0	8.0	<2.3	2.3	<2.2	2.2	<2.3	2.3	<2.6	2.6	<2.6	2.6		
	4,4'-DDT	3.3	7,900	<10	10	<10	10	<2.6	2.6	<2.3	2.3	<2.2	2.2	<2.2	2.2	<2.2	2.2	<2.1	2.1	<2.3	2.3	<2.3	2.3	<2.3	2.3	<2.2	2.2	<2.3	2.3	<2.2	2.2	<2.6	2.6		
	Aldrin	5	97	<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<13	13	<3.7	3.7	<3.7	3.7	<12	12	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4		
	alpha-BHC	20	480	<7.8	7.8	<7.9	7.9	<8.6	8.6	<7.7	7.7	<45	45	<7.3	7.3	<7.4	7.4	<41	41	<7.6	7.6	<7.6	7.6	<7.7	7.7	<7.4	7.4	<7.8	7.8	<8.8	8.8	<8.8	8.8		
	alpha-Chlordane	94	4,200	<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<45	45	<3.7	3.7	<3.7	3.7	<41	41	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4		
	beta-BHC	36	360	<7.8	7.8	<7.9	7.9	<8.6	8.6	<7.7	7.7	<45	45	<7.3	7.3	<7.4	7.4	<41	41	<7.6	7.6	<7.6	7.6	<7.7	7.7	<7.4	7.4	<7.8	7.8	<8.8	8.8	<8.8	8.8		
	Chlordane, total			<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<450	450	<3.7	3.7	<3.7	3.7	<410	410	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4		
	delta-BHC	40	100,000	<7.8	7.8	<7.9	7.9	<8.6	8.6	<7.7	7.7	<45	45	<7.3	7.3	<7.4	7.4	<41	41	<7.6	7.6	<7.6	7.6	<7.7	7.7	<7.4	7.4	<7.8	7.8	<8.8	8.8	<8.8	8.8		
	Dieldrin	5	200	<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<13	13	<3.7	3.7	<3.7	3.7	<12	12	<3.8	3.8	<5.0	5.0	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4		
	Endosulfan I	2,400	24,000	<7.8	7.8	<7.9	7.9	<8.6	8.6	<7.7	7.7	<89	89	<7.3	7.3	<7.4	7.4	<82	82	<7.6	7.6	<7.6	7.6	<7.7	7.7	<7.4	7.4	<7.8	7.8	<8.8	8.8	<8.8	8.8		
	Endosulfan II	2,400	24,000	<7.8	7.8	<7.9	7.9	<8.6	8.6	<7.7	7.7	<89	89	<7.3	7.3	<7.4	7.4	<82	82	<7.6	7.6	<7.6	7.6	<7.7	7.7	<7.4	7.4	<7.8	7.8	<8.8	8.8	<8.8	8.8		
	Endosulfan sulfate	2,400	24,000	<7.8	7.8	<7.9	7.9	<8.6	8.6	<7.7	7.7	<89	89	<7.3	7.3	<7.4	7.4	<82	82	<7.6	7.6	<7.6	7.6	<7.7	7.7	<7.4	7.4	<7.8	7.8	<8.8	8.8	<8.8	8.8		
	Endrin	14	11,000	<7.8	7.8	<7.9	7.9	<8.6	8.6	<7.7	7.7	<45	45	<7.3	7.3	<7.4	7.4	<41	41	<7.6	7.6	<7.6	7.6	<7.7	7.7	<7.4	7.4	<7.8	7.8	<8.8	8.8	<8.8	8.8		
	Endrin aldehyde			<7.8	7.8	<7.9	7.9	<8.6	8.6	<7.7	7.7	<89	89	<7.3	7.3	<7.4	7.4	<82	82	<7.6	7.6	<7.6	7.6	<7.7	7.7	<7.4	7.4	<7.8	7.8	<8.8	8.8	<8.8	8.8		
	Endrin ketone			<7.8	7.8	<7.9	7.9	<8.6	8.6	<7.7	7.7	<89	89	<7.3	7.3	<7.4	7.4	<82	82	<7.6	7.6	<7.6	7.6	<7.7	7.7	<7.4	7.4	<7.8	7.8	<8.8	8.8	<8.8	8.8		
	gamma-BHC (Lindane)			<1.6	1.6	<1.6	1.6	<1.7	1.7	<1.5	1.5	<18	18	<1.5	1.5	<1.5	1.5	<16	16	<1.5	1.5	<3.0	3.0	<1.5	1.5	<1.5	1.5	<1.6	1.6	<1.8	1.8	<1.8	1.8		
	gamma-Chlordane			<3.9	3.9	<5.0	5.0	<4.3	4.3	<3.8	3.8	<45	45	<3.7	3.7	<3.7	3.7	<41	41	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4		
	Heptachlor	42	2,100	<7.8	7.8	<7.9	7.9	<8.6	8.6	<7.7	7.7	<45	45	<7.3	7.3	<7.4	7.4	<41	41	<7.6	7.6	<7.6	7.6	<7.7	7.7	<7.4	7.4	<7.8	7.8	<8.8	8.8	<8.8	8.8		
	Heptachlor epoxide			<7.8	7.8	<7.9	7.9	<8.6	8.6	<7.7	7.7	<89	89	<7.3	7.3	<7.4	7.4	<82	82	<7.6	7.6	<7.6	7.6	<7.7	7.7	<7.4	7.4	<7.8	7.8	<8.8	8.8	<8.8	8.8		
	Methoxychlor			<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<450	450	<3.7	3.7	<3.7	3.7	<410	410	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4		
	Toxaphene			<160	160	<160	160	<170	170	<150	150	<1800	1,800	<150	150	<150	150	<1600	1,600	<150	150	<150	150	<150	150	<150	150	<150	150	<160	160	<180	180	<180	180
	PCBs	Aroclor 1016			<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<45	45	<3.7	3.7	<3.7	3.7	<41	41	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4	
		Aroclor 1221			<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<45	45	<3.7	3.7	<3.7	3.7	<41	41	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4	
		Aroclor 1232			<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<45	45	<3.7	3.7	<3.7	3.7	<41	41	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4	
		Aroclor 1242			<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<45	45	<3.7	3.7	<3.7	3.7	<41	41	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4	
Aroclor 1248				<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<45	45	<3.7	3.7	<3.7	3.7	<41	41	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4		
Aroclor 1254				<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<45	45	<3.7	3.7	<3.7	3.7	<41	41	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4		
Aroclor 1260				<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<45	45	<3.7	3.7	<3.7	3.7	<41	41	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4		
Aroclor 1262				<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<45	45	<3.7	3.7	<3.7	3.7	<41	41	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4		
Aroclor 1268			<3.9	3.9	<3.9	3.9	<4.3	4.3	<3.8	3.8	<45	45	<3.7	3.7	<3.7	3.7	<41	41	<3.8	3.8	<3.8	3.8	<3.8	3.8	<3.7	3.7	<3.9	3.9	<4.4	4.4	<4.4	4.4			
Chlorinated Herbicides	2,4,5-T			-	-	-	-	<55	55	<48	48	<56	56	<46	46	<48	48	<51	51	<49	49	<48	48	<48	48	<47	47	<48	48	<50	50	<50	50		
	2,4,5-TP (Silvex)		100	-	-	-	-	<55	55	<48	48	<56	56	<46	46	<48	48	<51	51	<49	49	<48	48	<48	48	<47	47	<48	48	<50	50	<50	50		
	2,4-D			-	-	-	-	<55	55	<48	48	<56	56	<46	46	<48	48	<51	51	<49	49	<48	48	<48	48	<47	47	<48	48	<50	50	<50	50		
	2,4-DB			-	-	-	-	<550	550	<480	480	<580	580	<460	460	<480	480	<510	510	<490	490	<480	480	<480	480	<470	470	<480	480	<5500	5,500	<5,500	5,500		
	Dalapon			-	-	-	-	<95	95	<48	48	<56	56	<46	46	<48	48	<51	51	<49	49	<48	48	<48	48	<47	47	<48	48	<50	50	<50	50		
	Dicamba			-	-	-	-	<110	110	<95	95	<110	110	<93	93	<95	95	<100	100	<98	98	<97	97	<9											

TABLE 7
 105 North 13th Street
 Brooklyn, New York
 Waste Characterization Soil Sample Analytical Results
 Fill Material
 Metals TCLP Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	NYDEC Part 375.6 Commercial Soil Cleanup Objectives*	Fill A Comp (0-3)		Fill B Comp (0-3)		Fill A (4-8)		Fill A (8-12)		Fill A (12-16)		Fill B (4-8)		Fill B (8-12)		Fill B (12-16)		Fill C (4-8)		Fill C (8-12)		Fill C (12-16)		Fill D (4-8)		Fill D (8-12)		Fill D (12-16)			
				9/4/2015		9/3/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015	
				Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Aluminum				5,650	38	6,360	39	5,920	41	5,880	38	6,810	42	9,960	35	8,050	35	6,110	40	3,540	37	3,530	38	7,260	36	1,720	3.5	5,410	38	7,290	43		
Antimony				21.9	1.9	13.3	1.9	27.3	2.0	<1.9	1.9	5.7	2.1	<1.8	1.8	2.9	1.8	9.5	2.0	<1.8	1.8	<1.9	1.9	<1.8	1.8	<1.8	1.8	6.9	1.9	5.4	2.2		
Arsenic	13	16	16	17.1	0.8	18	0.8	21.5	0.8	6.2	0.8	7.7	0.8	5.5	0.7	6.9	0.7	11.3	0.8	4.7	0.7	2.9	0.8	1.8	0.7	1.7	0.7	8.8	0.8	8.4	0.9		
Barium	350	400	400	1,340	0.8	979	0.8	1,750	8.1	184	0.8	275	0.8	140	0.7	621	0.7	286	0.8	57.3	0.7	35.6	0.8	48.4	0.7	19.2	0.7	94	0.8	106	0.9		
Beryllium	7.2	72	590	0.48	0.30	0.43	0.31	0.52	0.32	0.34	0.31	0.39	0.34	0.59	0.28	0.47	0.28	0.38	0.32	0.32	0.29	0.18	0.31	0.4	0.29	<0.28	0.28	0.37	0.30	0.38	0.35		
Cadmium	2.5	4.3	9.3	3.86	0.38	3.55	0.39	4.17	0.41	0.66	0.38	1.05	0.42	0.42	0.35	0.82	0.35	0.71	0.40	0.17	0.37	0.2	0.38	0.18	0.36	<0.35	0.35	0.69	0.38	0.26	0.43		
Calcium				6,590	3.8	12,100	39	16,200	41	29,800	38	12,300	4.2	3,530	3.5	6,310	3.5	10,400	4.0	1,670	3.7	1,800	3.8	1,430	3.6	1,730	3.5	2,050	3.8	1,780	4.3		
Chromium	30	180	1,500	49.2	0.38	34.3	0.39	50.3	0.41	17.8	0.38	18.5	0.42	23.9	0.35	26.4	0.35	19.7	0.40	11.5	0.37	7.93	0.38	15.9	0.36	4.62	0.35	13.3	0.38	23.9	0.43		
Chromium Hexavalent	1	110	400	<0.45	0.45	<0.48	0.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Cobalt				11.7	0.38	9.57	0.39	8.62	0.41	6.39	0.38	7.42	0.42	8.31	0.35	7.33	0.35	9.19	0.40	7.98	0.37	2.99	0.38	6.84	0.36	2.73	0.35	7.88	0.38	6.88	0.43		
Copper	50	270	270	223	3.8	278	3.9	405	4.1	79.9	0.38	194	4.2	43.2	0.35	101	0.35	988	4.0	37.2	0.37	27.8	0.38	14.8	0.36	5.64	0.35	56.5	0.38	1,330	4.3		
Iron				70,100	38	67,500	39	56,900	41	22,400	38	30,400	42	34,200	35	32,200	35	22,300	40	9,730	37	9,520	38	19,200	36	9,010	35	17,600	38	24,400	43		
Lead	63	400	1,000	5,480	75	4,160	77	9,490	81	687	7.7	1,050	8.4	267	7.0	1,310	7.1	942	7.9	84.2	0.7	252	7.7	6.7	0.7	27.3	0.7	176	7.5	369	8.7		
Magnesium				1,220	3.8	1,620	3.9	1,130	4.1	1,580	3.8	1,900	4.2	1,890	3.5	1,310	3.5	1,740	4.0	907	3.7	966	3.8	1,940	3.6	1,070	3.5	1,220	3.8	1,860	4.3		
Manganese	1800	2000	10,000	480	3.8	569	3.9	590	4.1	438	3.8	293	4.2	440	3.5	692	3.5	201	4.0	205	3.7	80.4	0.38	480	3.6	223	3.5	302	3.8	97.2	0.43		
Mercury	0.18	0.81	2.8	5.97	0.29	4.47	0.32	9.2	0.35	3.47	0.27	16.8	0.33	0.08	0.03	0.3	0.03	1.11	0.03	0.19	0.03	0.61	0.03	<0.03	0.03	0.03	0.03	0.6	0.03	1.26	0.03		
Molybdenum				1.54	0.38	1.1	0.39	1.53	0.41	0.53	0.38	0.75	0.42	0.53	0.35	0.69	0.35	1.29	0.40	1.29	0.37	<0.38	0.38	<0.36	0.36	0.39	0.35	1.37	0.38	1.03	0.43		
Nickel	30	310	310	22.5	0.38	17.5	0.39	17.7	0.41	14.1	0.38	14	0.42	14.8	0.35	13.1	0.35	15.6	0.40	15.5	0.37	7.19	0.38	11.8	0.36	3.71	0.35	15.4	0.38	11.7	0.43		
Potassium				1,240	8	1,260	8	1,180	8.1	1,050	7.7	1,230	8.4	1,510	7.0	1,110	7.1	1,210	7.9	731	7.4	688	7.7	1,270	7.3	371	7.1	939	7.5	1,350	8.7		
Selenium	3.9	36	1,500	<1.5	1.5	<1.5	1.5	<1.6	1.6	<1.5	1.5	<1.7	1.7	<1.4	1.4	<1.4	1.4	<1.6	1.6	<1.5	1.5	<1.5	1.5	<1.5	1.5	<1.4	1.4	<1.5	1.5	<1.7	1.7		
Silver	2	36	1,500	0.84	0.38	0.8	0.39	1.42	0.41	<0.38	0.38	<0.42	0.42	<0.35	0.35	<0.35	0.35	0.58	0.40	<0.37	0.37	<0.38	0.38	<0.36	0.36	<0.35	0.35	<0.38	0.38	0.78	0.43		
Sodium				491	8	421	8	1,310	8	503	8	480	8	184	7	525	7	191	8	214	7	191	8	124	7	43	7	235	8	273	9		
Thallium				<1.5	1.5	<1.5	1.5	<1.6	1.6	<1.5	1.5	<1.7	1.7	<1.4	1.4	<1.4	1.4	<1.6	1.6	<1.5	1.5	<1.5	1.5	<1.5	1.5	<1.4	1.4	<1.5	1.5	<1.7	1.7		
Vanadium				26.1	0.4	22.3	0.4	21.6	0.4	22.3	0.4	26.1	0.4	38.5	0.4	27.3	0.4	25.3	0.4	23.1	0.4	12	0.4	29.5	0.4	9.9	0.4	23.7	0.4	26.2	0.4		
Zinc	109	10,000	10,000	1,990	75	1,610	77	2,590	81	386	7.7	615	8.4	103	0.7	426	7.1	554	7.9	48.5	0.7	178	7.7	26.5	0.7	7.9	0.7	285	7.5	155	0.9		

TCLP METALS	TCLP Regulatory Limit* (mg/L)	Fill A Comp (0-3)		Fill B Comp (0-3)		Fill A (4-8)		Fill A (8-12)		Fill A (12-16)		Fill B (4-8)		Fill B (8-12)		Fill B (12-16)		Fill C (4-8)		Fill C (8-12)		Fill C (12-16)		Fill D (4-8)		Fill D (8-12)		Fill D (12-16)			
		9/4/2015		9/3/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015			
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Arsenic	5	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10
Barium	100	1.09	0.10	1.02	0.10	0.68	0.10	0.66	0.10	0.69	0.10	1.12	0.10	1.84	0.10	1.26	0.10	0.2	0.10	0.38	0.10	0.64	0.10	0.3	0.10	0.69	0.10	0.75	0.10	0.75	0.10
Cadmium	1	0.049	0.050	0.017	0.050	0.019	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050
Chromium	5	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10
Lead	5	28.3	1.0	3.38	1.0	14.9	1.0	0.38	1.0	5.84	1.0	0.24	1.0	14.4	1.0	4.59	1.0	0.04	1.0	1.48	1.0	<0.10	1.0	<0.10	1.0	<0.10	1.0	0.04	1.0	1.01	1.0
Mercury	0.20	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002
Selenium	1	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10
Silver	5	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10

Notes:
 ** - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives
 BRL - Below Reporting Limit
 Bold/highlighted - Indicated exceedance of the NYSDEC Unrestricted Use SCO
 Bold/highlighted - Indicated exceedance of the NYSDEC Restricted Residential SCO
 Bold/highlighted - Indicated exceedance of the NYSDEC Commercial SCO
 Bold/highlighted - Indicated exceedance of the TCLP Threshold

TABLE 8
 105 North 13th Street
 Brooklyn, New York
 Waste Characterization Soil Sample Analytical Results
 Fill Material
 RCRA Characteristics

Test/Procedure	Hazardous Levels	Units	Fill A Comp (0-3)		Fill B Comp (0-3)		Fill BPP4		Fill A (4-8)		Fill A (8-12)		Fill A (12-16)		Fill B (4-8)		Fill B (8-12)		Fill B (12-16)		Fill C (4-8)			
			9/4/2015		9/3/2015		9/4/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015	
			mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chromium, Hexavalent		mg/Kg	-	-	-	-	-	-	< 0.55	0.55	< 0.47	0.47	< 0.56	0.56	< 0.43	0.43	< 0.46	0.46	< 0.49	0.49	< 0.45	0.45		
Corrosivity		Pos/Neg	Negative	-	Negative	-	-	-	Negative	-	Negative	-	Negative	-	Negative	-	Negative	-	Negative	-	Negative	-		
>C28-C40		mg/kg	-	-	-	-	-	-	70	66	< 57	57	770	67	< 55	55	< 56	56	3,800	610	< 58	58		
C9-C28		mg/kg	-	-	-	-	-	-	230	66	90	57	1,900	67	< 55	55	110	56	10,000	610	< 58	58		
Total EPH		mg/kg	-	-	-	-	-	-	300	66	90	57	2,700	67	< 55	55	110	56	14,000	610	< 58	58		
Extractable Organic Halogens		mg/kg	-	-	-	-	-	-	< 10	10	< 10	10	< 10	10	< 10	10	< 10	10	< 10	10	< 10	10		
Flash Point		Degree F	>200	200	>200	200	-	-	>200	200	>200	200	>200	200	>200	200	>200	200	>200	200	>200	200		
GRO (C6-C10)		mg/Kg	-	-	-	-	< 0.42	0.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Ignitability	<140	degree F	Passed	140	Passed	140	-	-	Passed	140	Passed	140	Passed	140	Passed	140	Passed	140	Passed	140	Passed	140		
Percent Solid		%	85	-	84	-	83	-	76	-	86	-	74	-	89	-	87	-	81	-	85	-		
pH - Soil	≤2.0 or ≥12.5	pH Units	8.09	0.10	8.05	0.10	-	-	8.2	0.10	8.12	0.10	7.87	0.10	8.4	0.10	8.18	0.10	8.16	0.10	7.62	0.10		
Reactivity Cyanide	<250	mg/Kg	< 5.8	5.8	< 6.0	6.0	-	-	< 6.6	6.6	< 5.7	5.7	< 6.6	6.6	< 5.5	5.5	< 5.5	5.5	< 6.2	6.2	< 5.9	5.9		
Reactivity Sulfide	<500	mg/Kg	< 20	20	< 20	20	-	-	< 20	20	< 20	20	< 20	20	< 20	20	< 20	20	< 20	20	< 20	20		
Reactivity		Pos/Neg	Negative	-	Negative	-	-	-	Negative	-	Negative	-	Negative	-	Negative	-	Negative	-	Negative	-	Negative	-		
Redox Potential		mV	190	1.0	380	1.0	-	-	270	1.0	230	1.0	240	1.0	260	1.0	400	1.0	150	1.0	200	1.0		
Total Cyanide (SW9010C Distill.)		mg/Kg	2.87	0.59	6.37	0.60	-	-	6.07	0.66	0.988	0.58	< 0.68	0.68	0.363	0.56	0.462	0.57	< 0.62	0.62	< 0.59	0.59		
TPH to C44		mg/Kg	-	-	-	-	420	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Test/Procedure	Hazardous Levels	Units	Fill C (8-12)		Fill C (12-16)		Fill D (4-8)		Fill D (8-12)		Fill D (12-16)		Fill A Grab (12-16)		Fill B Grab (12-16)		Fill C Grab (12-16)		Fill D Grab (12-16)		
			9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		9/17/2015		
			mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg
Chromium, Hexavalent		mg/Kg	< 0.48	0.48	< 0.45	0.45	< 0.46	0.46	< 0.45	0.45	< 0.56	0.56	-	-	-	-	-	-	-	-	-
Corrosivity		Pos/Neg	Negative	-	Negative	-	Negative	-	Negative	-	Negative	-	-	-	-	-	-	-	-	-	-
>C28-C40		mg/kg	96	58	< 59	59	< 56	56	280	57	1,300	660	-	-	-	-	-	-	-	-	-
C9-C28		mg/kg	70	58	1,800	59	< 56	56	250	57	3,700	660	-	-	-	-	-	-	-	-	-
Total EPH		mg/kg	180	58	1,800	59	< 56	56	530	57	5,000	660	-	-	-	-	-	-	-	-	-
Extractable Organic Halogens		mg/kg	< 10	10	< 10	10	< 10	10	< 10	10	< 10	10	-	-	-	-	-	-	-	-	-
Flash Point		Degree F	>200	200	>200	200	>200	200	>200	200	>200	200	-	-	-	-	-	-	-	-	-
GRO (C6-C10)		mg/Kg	-	-	-	-	-	-	-	-	-	-	< 0.078	0.078	73	0.065	250	0.60	9.5	0.059	-
Ignitability	<140	degree F	Passed	140	Passed	140	Passed	140	Passed	140	Passed	140	-	-	-	-	-	-	-	-	-
Percent Solid		%	86	-	85	-	87	-	85	-	75	-	64	-	77	-	83	-	84	-	-
pH - Soil	≤2.0 or ≥12.5	pH Units	8.12	0.10	7.15	0.10	8.48	0.10	7.65	0.10	8.12	0.10	-	-	-	-	-	-	-	-	-
Reactivity Cyanide	<250	mg/Kg	< 5.8	5.8	< 5.6	5.6	< 5.6	5.6	< 5.8	5.8	< 6.7	6.7	-	-	-	-	-	-	-	-	-
Reactivity Sulfide	<500	mg/Kg	< 20	20	< 20	20	< 20	20	< 20	20	< 20	20	-	-	-	-	-	-	-	-	-
Reactivity		Pos/Neg	Negative	-	Negative	-	Negative	-	Negative	-	Negative	-	-	-	-	-	-	-	-	-	-
Redox Potential		mV	180	1.0	-46	1.0	-22	1.0	530	1.0	48	1.0	-	-	-	-	-	-	-	-	-
Total Cyanide (SW9010C Distill.)		mg/Kg	< 0.58	0.58	< 0.53	0.53	< 0.57	0.57	0.317	0.59	< 0.67	0.67	-	-	-	-	-	-	-	-	-
TPH to C44		mg/Kg	-	-	-	-	-	-	-	-	-	-	2,800	500	31,000	4,300	860	79	2,300	160	-

TABLE 11
103 North 13th Street
Brooklyn, New York
Soil Analytical Results
Semi-Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	EP1		EP2		EP3		EP4		EP5		EP6		EP7		EP8		EP9		EP10		EP11		EP12		EP13		EP14		EP14A		EP15		EP16			
			(13')		(13')		(13')		(13')		(13')		(13')		(13')		(13')		(13')		(13')		(13')		(13')		(13')		(13')		(13')		(13')		(13')			
			7/6/2016		7/20/2016		7/20/2016		7/20/2016		7/6/2016		7/6/2016		7/6/2016		7/20/2016		7/20/2016		7/20/2016		7/20/2016		7/20/2016		7/20/2016		7/6/2016		7/6/2016		7/19/2016		7/20/2016		7/20/2016	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,2,4,5-Tetrachlorobenzene			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
1,2,4-Trichlorobenzene			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
1,2-Dichlorobenzene			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
1,2-Diphenylhydrazine			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
1,3-Dichlorobenzene			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
1,4-Dichlorobenzene			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
2,4,5-Trichlorophenol			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
2,4,6-Trichlorophenol			<190	190	<330	330	<320	320	<190	190	<190	190	<190	190	<300	200	<190	190	<190	190	<190	190	<190	190	<210	210	<210	210	<200	200	<320	320	<190	190	<310	310		
2,4-Dichlorophenol			<190	190	<330	330	<320	320	<190	190	<190	190	<190	190	<300	200	<190	190	<190	190	<190	190	<190	190	<210	210	<210	210	<200	200	<320	320	<190	190	<310	310		
2,4-Dimethylphenol			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
2,4-Dinitrophenol			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
2,4-Dinitrotoluene			<190	190	<330	330	<320	320	<190	190	<190	190	<190	190	<300	200	<190	190	<190	190	<190	190	<190	190	<210	210	<210	210	<200	200	<320	320	<190	190	<310	310		
2,6-Dinitrotoluene			<190	190	<330	330	<320	320	<190	190	<190	190	<190	190	<300	200	<190	190	<190	190	<190	190	<190	190	<210	210	<210	210	<200	200	<320	320	<190	190	<310	310		
2-Chloronaphthalene			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
2-Chlorophenol			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
2-Methylnaphthalene			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
2-Methylphenol (o-cresol)	330	100,000	<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
2-Nitroaniline			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
2-Nitrophenol			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
3,4-Methylphenol (m&p-cresol)	330	100,000	<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
3,3'-Dichlorodiphenyl ether			<190	190	<330	330	<320	320	<190	190	<190	190	<190	190	<300	200	<190	190	<190	190	<190	190	<190	190	<210	210	<210	210	<200	200	<320	320	<190	190	<310	310		
3-Nitroaniline			<390	390	<650	650	<640	640	<380	380	<380	380	<380	380	<400	400	<380	380	<380	380	<390	390	<430	430	<410	410	<410	410	<400	400	<640	640	<380	380	<610	610		
4,6-Dinitro-2-methylphenol			<230	230	<390	390	<380	380	<230	230	<230	230	<230	230	<340	240	<230	230	<230	230	<230	230	<280	280	<250	250	<240	240	<600	600	<230	230	<370	370				
4-Bromophenyl phenyl ether			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
4-Chloro-3-methylphenol			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
4-Chloroaniline			<310	310	<520	520	<510	510	<300	300	<300	300	<310	310	<520	520	<300	300	<300	300	<310	310	<340	340	<330	330	<320	320	<510	510	<300	300	<480	480				
4-Chlorophenyl phenyl ether			<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
4-Nitroaniline			<390	390	<650	650	<640	640	<380	380	<380	380	<380	380	<400	400	<380	380	<380	380	<390	390	<430	430	<410	410	<410	410	<400	400	<640	640	<380	380	<610	610		
4-Nitrophenol			<390	390	<650	650	<640	640	<380	380	<380	380	<380	380	<400	400	<380	380	<380	380	<390	390	<430	430	<410	410	<410	410	<400	400	<640	640	<380	380	<610	610		
Acenaphthene	20,000	100,000	<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
Acenaphthylene	100,000	100,000	<270	270	<450	450	<450	450	<260	260	<270	270	<270	270	<260	260	<260	260	<270	270	<300	300	<290	290	<290	290	<280	280	<450	450	<270	270	<450	450				
Acetophenone			<270	270	<450	450	<450	450	<260																													

TABLE 14
103 North 13th Street
Brooklyn, New York
Soil Analytical Results
Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	EP1		EP2		EP3		EP3A		EP4		EP5		EP6		EP7		EP8		EP8A		EP9		EP10		EP11		EP12		EP13		EP14		EP15		EP16				
			(13') 7/6/2016	(13') 7/20/2016	(13') 7/20/2016	(13.5') 7/25/2016	(13') 7/20/2016	(13') 7/6/2016	(13') 7/6/2016	(13') 7/6/2016	(13.5') 8/2/2016	(13') 7/6/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13.5') 7/25/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016	(13') 7/20/2016			
			mg/Kg	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	
Aluminum			9,570	36	8,280	38	17,600	67	-	-	13,600	60	8,710	39	9,080	39	6,520	36	11,000	43	-	-	7,380	38	10,400	38	8,000	37	10,300	44	9,580	45	8,050	37	9,310	38	-	-	14,600	58	
Antimony			<2.0	2.0	<1.9	1.9	<3.3	3.3	-	-	<3.0	3.0	<2.0	2.0	<2.0	2.0	<1.8	1.8	<2.1	2.1	-	-	<1.9	1.9	<1.8	1.8	<1.8	1.8	<2.2	2.2	<2.2	2.2	<1.9	1.9	<1.9	1.9	<2.9	2.9			
Arsenic	13	16	4.02	0.80	2.26	0.76	4.5	1.3	-	-	5.9	1.2	3.13	0.79	3.03	0.79	1.92	0.73	2.19	0.86	-	-	1.47	0.76	2.29	0.73	2.63	0.74	1.95	0.89	2.65	0.89	3.14	0.74	1.98	0.76	-	-	5.7	1.2	
Barium	350	350	52.8	0.8	47.5	0.8	73	1.3	-	-	42.2	1.2	54.8	0.8	56	0.8	39.7	0.7	32.8	0.9	-	-	44.9	0.8	51.2	0.7	39.8	0.7	14.5	0.9	39.7	0.9	54.2	0.7	47.8	0.8	-	-	29.5	1.2	
Beryllium	7.2	14	0.52	0.32	0.56	0.31	0.98	0.53	-	-	0.65	0.46	0.52	0.32	0.5	0.31	0.29	0.29	0.59	0.34	-	-	0.44	0.31	0.49	0.29	0.33	0.29	0.3	0.36	0.45	0.36	0.49	0.39	0.42	0.31	-	-	0.92	0.46	
Cadmium	2.5	2.5	<0.40	0.40	0.19	0.38	<0.67	0.67	-	-	<0.60	0.60	<0.39	0.39	<0.39	0.39	<0.36	0.36	<0.43	0.43	-	-	<0.38	0.38	0.16	0.36	<0.37	0.37	<0.44	0.44	<0.45	0.45	0.19	0.37	<0.38	0.38	-	-	<0.58	0.58	
Calcium			831	4.0	1,450	3.9	1,440	6.7	-	-	3,360	6.0	1,930	3.9	1,030	3.9	1,210	3.6	1,170	4.3	-	-	949	3.8	1,480	3.6	1,080	3.7	548	4.4	693	4.5	1,810	3.7	1,160	3.9	-	-	5,880	5.8	
Chromium	30	180	21.9	0.40	20.7	0.38	46.3	0.67	16.8	0.41	24.7	0.60	22.2	0.39	20.6	0.39	18.3	0.36	22.1	0.43	-	-	15.8	0.38	21.9	0.36	17.8	0.37	15.1	0.44	20.1	0.45	19.7	0.37	20.3	0.38	-	-	24.1	0.58	
Cobalt			10.3	0.40	9.37	0.38	14	0.67	-	-	8.98	0.60	9.6	0.39	8.66	0.39	7.92	0.36	8.84	0.43	-	-	8.6	0.38	11.5	0.36	7.51	0.37	4.96	0.44	11.6	0.45	9.57	0.37	8.57	0.38	-	-	7.71	0.58	
Copper	50	270	16.4	0.40	20	0.38	27.5	0.67	-	-	18.6	0.60	24.7	0.39	22.1	0.39	14.8	0.36	11.4	0.43	-	-	19.8	0.38	19.8	0.36	15.9	0.37	5.11	0.44	16.2	0.45	24.1	0.37	16.9	0.38	-	-	15.5	0.58	
Iron			21,600	36	24,700	38	32,400	67	-	-	27,200	60	20,300	39	22,000	39	17,100	36	8,640	4.3	-	-	17,000	38	26,900	36	21,500	37	11,000	4.4	18,000	45	23,200	37	18,000	38	-	-	23,000	58	
Lead	63	400	8	0.8	6	0.8	9.8	1.3	-	-	35.4	1.2	15.6	0.8	15.2	0.8	4.6	0.7	1.5	0.9	-	-	8.6	0.8	5.1	0.7	4.5	0.7	2.6	0.9	10.5	0.9	24.1	0.7	4.9	0.8	-	-	7.5	1.2	
Magnesium			2,370	4.0	2,280	3.8	4,230	6.7	-	-	4,440	6.0	2,440	3.9	2,350	3.9	1,780	3.6	1,510	4.3	-	-	2,240	3.8	3,210	3.6	2,040	3.7	1,950	4.4	2,470	4.5	2,300	3.7	2,560	3.8	-	-	4,270	5.8	
Manganese	1,600	2,000	383	3.6	289	3.8	220	0.67	-	-	341	6.0	377	3.9	222	3.9	260	3.6	72.1	0.43	-	-	229	3.8	1,010	3.7	73.8	0.44	346	4.5	394	3.7	225	3.8	-	-	184	0.58			
Mercury	0.18	0.81	<0.03	0.03	<0.03	0.03	<0.05	0.05	-	-	0.1	0.05	0.03	0.03	0.1	0.03	<0.03	0.03	<0.03	0.03	-	-	<0.03	0.03	<0.03	0.03	0.03	0.03	<0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Nickel	30	140	14.2	0.40	12.6	0.38	30	0.67	-	-	19	0.60	13.8	0.39	13.2	0.39	11.8	0.36	15.2	0.43	-	-	12.9	0.38	15.1	0.36	12.2	0.37	13.2	0.44	13.6	0.45	13.6	0.37	11.8	0.38	-	-	16.7	0.58	
Potassium			1,270	8	1,370	8	2,800	13	-	-	2,580	12	1,560	8	1,470	8	1,220	7	929	9	-	-	1,480	8	1,720	7	1,320	7	677	9	1,340	9	1,520	7	1,380	8	-	-	2,270	12	
Selenium	3.9	36	<1.6	1.6	<1.5	1.5	<2.7	2.7	-	-	<2.4	2.4	<1.6	1.6	<1.5	1.5	<1.5	1.5	<1.7	1.7	-	-	<1.5	1.5	<1.5	1.5	<1.5	1.5	<1.8	1.8	<1.8	1.8	<1.5	1.5	<1.5	1.5	<1.5	1.5	<2.3	2.3	
Silver	2	36	<0.40	0.40	<0.38	0.38	<0.67	0.67	-	-	<0.60	0.60	<0.39	0.39	<0.39	0.39	<0.36	0.36	<0.43	0.43	-	-	<0.38	0.38	<0.36	0.36	<0.37	0.37	<0.44	0.44	<0.45	0.45	<0.37	0.37	<0.38	0.38	-	-	<0.58	0.58	
Sodium			227	8	231	8	319	13	-	-	721	12	228	8	184	8	207	7	327	9	-	-	236	8	238	7	174	7	210	9	247	9	235	7	229	8	-	-	507	12	
Thallium			<1.6	1.6	<1.5	1.5	<2.7	2.7	-	-	<2.4	2.4	<1.6	1.6	<1.5	1.5	<1.5	1.5	<1.7	1.7	-	-	<1.5	1.5	<1.5	1.5	<1.5	1.5	<1.8	1.8	<1.8	1.8	<1.5	1.5	<1.5	1.5	<1.5	1.5	<2.3	2.3	
Vanadium			34.3	0.40	42.4	0.38	59.8	0.67	-	-	40.6	0.60	36.2	0.39	34.3	0.39	30.5	0.36	27.1	0.43	-	-	26.3	0.38	41.8	0.38	29	0.37	17.3	0.44	29.5	0.45	30.2	0.37	32	0.38	-	-	35.1	0.58	
Zinc	109	2,200	35.2	0.8	36.7	0.8	156	1.3	22.4	0.41	64.7	1.2	43.5	0.8	38.1	0.8	29	0.7	150	0.9	67.7	0.78	36.7	0.8	39.3	0.7	34	0.7	27.3	0.9	36	0.9	46.8	0.7	29.7	0.8	-	-	38.7	1.2	

Notes:
* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives
RL - Reporting Limit
Boldhighlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value
Boldhighlighted- Indicated exceedance of the NYSDEC RRSO Guidance Value