2477 Third Avenue

BRONX, NEW YORK

Site Management Plan

NYSDEC Site Number: C203047

Prepared for:
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Revisions to Final Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

OCTOBER 2015

CERTIFICATION STATEMENT

I, Michelle Lapin, certify that I am currently a NYS registered professional engineer and that this Site Management Plan 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).

Michelle Lapin
Name

073834-01
NYS PE License Number

Signature

10/19/15
Date

EXECUTIVE SUMMARY

Jiten LLC entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) to remediate a 0.214-acre property located in the Bronx, New York. This BCA required the Remedial Party, Jiten LLC, to investigate and remediate contaminated media at the Site. After completion of the remedial work described in the Remedial Action Work Plan, some contamination was left in the subsurface at this Site. To manage the remaining contamination and address the potential for future exposure to any residual contamination, Institutional Controls (ICs) in the form of a deed restriction have been placed on the property.

This Site Management Plan (SMP) was prepared to manage future activities at the Site, and specifies the methods to ensure compliance with all the ICs and Engineering Controls (ECs) that are or may be required by the deed restriction. This plan has been approved by the NYSDEC, in consultation with the New York State Department of Health (NYSDOH), and compliance with this plan by the property owner (as well as successors and assigns) is required per the aforementioned deed restriction. This SMP may only be revised with the approval of the NYSDEC.

Before any activities are undertaken at the property, all parties should be aware of the following restrictions:

- Any development or change of use of the property must be preceded by a "Change of Use" notification to the NYSDEC as required by regulation, currently found at 6NYCRR Part 375-1.11(d). (Note that transfer of ownership of all or part of the property is considered a "change of use." Procedures for this notification can be found on the NYSDEC's internet web page. The property may only be used for commercial or industrial purposes, currently defined in regulation at 6NYCRR Part375-1.8(g)(2), unless an express written waiver is obtained from the NYSDEC or Relevant Agency.
- Any person responsible for construction or excavation activities at the Site must follow the prior notification procedures detailed in Section 2.4 and Appendix A of this SMP. Any excavation work will be expected to adhere to the details found in the Excavation Work Plan, which is part of this SMP (Appendix A).

- Use of the groundwater underlying the Property is prohibited unless the user first obtains permission from the NYSDEC or Relevant Agency.
- Periodic certification to the NYSDEC will be required to certify that the controls put in place are unchanged from the previous certification, and that there is continued compliance with this SMP. Certification procedures are found in Section 5.0 of this SMP.

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SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 Introduction

This document is required as an element of the remedial program at 2477 Third Avenue in the Bronx (hereinafter referred to as the "Site") under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index# C203047-11-09, Site # C203047, which was executed on October 22, 2009.

1.1.1 General

Jiten LLC entered into a BCA with the NYSDEC to remediate a 0.214-acre property located in the Bronx, New York. This BCA required the Remedial Party, Jiten LLC, to investigate and remediate contaminated media at the Site. A figure showing the Site location and boundaries of this 0.214-acre Site is provided in Figure 1. The boundaries of the Site are more fully described in the metes and bounds site description that is part of the Environmental Easement.

After completion of the remedial work described in the Remedial Action Work Plan, some contamination was left in the subsurface at this Site, which is hereafter referred to as 'remaining contamination." This Site Management Plan (SMP) was prepared to manage remaining contamination at the Site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by AKRF, Inc., on behalf of Jiten LLC, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May, 2010, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Environmental Easement for the Site.

1.1.2 Purpose

The Site contains contamination left after completion of the remedial action. Engineering Controls have been incorporated into the Site remedy to control exposure to

remaining contamination during the use of the Site to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Bronx County Clerk, will require compliance with this SMP and all ECs and ICs placed on the Site. The ICs place restrictions on site use, and mandate maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary to ensure compliance with all ECs and ICs required by the Environmental Easement for contamination that remains at the Site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) media monitoring; (3) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports; and (4) defining criteria for termination of treatment system operations.

To address these needs, this SMP includes three plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; and (2) a Monitoring Plan for implementation of Site Monitoring.

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the environmental easement, which is grounds for revocation of the Certificate of Completion (COC);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the BCA (Index #C203047-11-09; Site #C203047) for the Site, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Environmental Easement for the Site, the NYSDEC

will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.2 Site Background

1.2.1 Site Location and Description

The Site is located in the County of the Bronx, New York and is identified as a portion of Block 2320 and Lot 11 on the Bronx Tax Map. The Site is an approximately 0.214-acre area bounded by 136th Street to the north, 135th Street to the south, Third Avenue to the east, and the remainder of Lot 11 to the west (see Figure 2). The boundaries of the Site are more fully described in Appendix B – Metes and Bounds.

1.2.2 Site History

Historic Sanborn maps indicate that the Site was occupied by a Drain Pipes and Fireproof Materials company and was developed with several structures including a store house and stable prior to 1891. A wagon yard occupied the Site in 1908. From 1951 through 1989, the Site comprised a gasoline filling station.

Previous documentation indicated that releases of petroleum were identified in several on-site monitoring wells between 1984 and 1986. A gasoline spill (Spill No. 0230034) was reported to the NYSDEC on January 31, 2002 and analytical data of subsequent investigations between 2002 and 2008 indicated that a plume consisting of gasoline-related hydrocarbons was identified in groundwater migrating southeast from the Site. Regulatory records during initial assessment of the Site identified three 4,000-gallon gasoline underground storage tanks (USTs), one 4,000-gallon diesel UST, and three 12,000-gallon gasoline USTs at the Site. An additional four 550-gallon USTs and one 1,200-gallon UST were identified during the remedial actions conducted.

1.2.3 Geologic Conditions

The surface topography at the Site is generally level. According to a survey performed by Montrose Surveying Co., LLP, the outdoor portions of the Site are generally at an elevation of 8.5 to 10 feet above the Bronx Topographical Bureau datum, which is 2.608 feet above mean sea level. On-site investigations indicated that surficial soil beneath the Site consists of fill materials underlain by sand (possibly native). The water table is approximately 7 to 10 feet below grade and was determined by the

elevation survey conducted as part of AKRF's November 2010 RI to flow in a south-southwesterly direction towards the Harlem River, approximately 800 feet west-southwest of the Site. Water in the Harlem River is tidally influenced and brackish. AKRF's November 2010 RI found presumed bedrock beneath Lot 11 (the Site) at depths ranging from 55 to 150 feet below surface grade.

A geologic section is shown in Figure 3.

A groundwater flow figure is shown in Figure 4.

1.3 Summary of Remedial Investigation Findings

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the Site. The results of the RI are described in detail in AKRF's Remedial Investigation Report (RIR). The investigation included the results of groundwater samples collected in October 2009 from nine previously installed shallow monitoring wells.

Generally, the RI determined that contamination identified for the subject property is predominantly associated with the elevated levels of gasoline-related VOCs detected in the shallow groundwater in the southern half of the Site. The contamination detected appears to be from gasoline tanks located in the southern half of the Site, though the exact source/tank has not been determined. This contamination has resulted in elevated levels of gasoline-related vapors in the soil gas. Some contaminants identified in soil are attributable to the urban fill at the Site.

Below is a summary of site conditions when the RI was performed in 2009 and 2010:

Soil

Volatile Organic Compounds (VOCs) were detected above the NYSDEC Part 375 Unrestricted Soil Cleanup Objectives (SCOs) in only one sample from the southern portion of the Site; only two of those VOCs were detected above the Commercial SCOs. The detections were in soil samples collected from directly above the water table and are attributable to the gasoline-related contamination to groundwater in the southern portion of the Site. The individual concentrations of the elevated VOCs in this sample ranged from 12 parts per million (ppm) to 700 ppm.

Based on their nature, concentrations and distribution, the semivolatile organic compounds (SVOCs), pesticides and metals detected in soil samples analyzed are attributable to the urban fill and not to a specific release or spill. One surface soil sample for laboratory analysis was collected from loose soil stored on the concrete pavement on the eastern portion of the Site. The soil comprised urban fill with sand, silt and gravel, and included fragments of concrete, brick and asphalt. The concentrations of compounds and metals detected in the surficial soil sample are attributable to the urban fill and not to a spill or leak.

Site-Related Groundwater

Shallow Groundwater Analysis

Fourteen VOCs were detected above NYSDEC Class GA standards (drinking water standards), including 1,2,4,5-tetramethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, ethylbenzene, isopropylbenzene, MTBE, naphthalene, n-butylbenzene, n-propylbenzene p-isopropyltoluene, sec-butylbenzene, toluene, and xylenes. All of these compounds are typically associated with gasoline. Concentrations of these compounds ranged from below detection limits to 2,520 parts per billion (ppb). VOC concentrations were generally higher in the samples collected from the southern portion of the Site, which concurs with the results of the previous investigations conducted at the Site.

SVOCs were detected in four groundwater samples at a concentrations ranging from 1.4 parts per billion (ppb) to 9.9 ppb, which in some cases were at concentrations above the Class GA standards. Elevated SVOCs associated with petroleum were detected in the southern portion of the property, which may be attributable to the gasoline related contamination detected in that area of the Site. However, the majority of the SVOC detections are most likely due to the surrounding urban fill. Concentrations of VOCs and SVOCs detected above the Class GA standards presented in AKRF's 2010 RIR on Figure 5.

Low levels of pesticides were detected in shallow groundwater samples and are attributable to past on-site landscaping activities or the urban fill.

Deep Groundwater Analysis

Low levels (below Class GA standards) of gasoline and solvent-related VOCs were detected in the three deep aquifer groundwater monitoring wells installed at the Site, which were likely indicative of general groundwater conditions in this area of the Bronx and are attributable to a long history of industrial/manufacturing activities. Only in the deep well installed in the southern portion of the Site were compound levels above the Class GA standards (i.e., 1,2,4-trimethylbenzene, cis-1,2-dichloroethene, and xylenes). The concentrations of detected VOCs ranged from 0.78 ppb to 19.2 ppb. No SVOCs were detected in the deep groundwater samples. Metals detected in the deep groundwater samples are attributable to the presence of urban fill or are naturally occurring.

Site-Related Soil Vapor Intrusion

Twelve VOCs were detected in the soil gas samples analyzed, ten of which were at concentrations above the EPA and NYSDOH guidance values. VOCs detected were either associated with petroleum/gasoline (2,2,4-trimethylpentane, benzene, methyl tert butyl ether (MTBE), n-hexane, propylene, and toluene) or with solvents (2 butanone, acetone, carbon disulfide, cyclohexane, heptane, and isopropanol). Concentrations of detected petroleum/gasoline-related VOCs ranged from 31.5 micrograms per cubic meter ($\mu g/m^3$) to 31,600 $\mu g/m^3$. Concentrations of detected solvent-related VOCs ranged from 18.2 $\mu g/m^3$ to 4,800 $\mu g/m^3$. The concentrations were observed to be randomly dispersed throughout the subsurface; no specific on-site source area of the vapors could be ascertained from the soil gas data.

The concentrations of detected petroleum/gasoline-related VOCs detected in the soil gas were generally higher than those of other VOCs detected, suggesting an on-site source (i.e., the gasoline contamination detected in the shallow groundwater monitoring well samples analyzed). Solvent-related VOCs were detected at significantly lower concentrations and may be related to past on-site manufacturing operations.

Underground Storage Tanks

Regulatory records identified three 4,000-gallon gasoline underground storage tanks (USTs), one 4,000-gallon diesel UST, and three 12,000-gallon gasoline USTs at the Site. These tanks were registered as closed and removed. Based on Sanborn maps and previous documentation and investigation reports, up to seven additional 550-gallon gasoline USTs were suspected to have been present at the Site; however, a geophysical survey and test pit investigation determined that these tanks were no longer preset at the Site in the location noted on the Sanborns.

An additional five USTs were discovered during the remedial activities conducted at the property in the southern portion of the Site. The tanks included four 550-gallon gasoline USTs and one 1,200-gallon of unknown contents. The locations of all identified USTs are shown on Figure 6.

1.4 Summary of Remedial Actions

The Site was remediated in accordance with AKRF's NYSDEC-approved Remedial Action Work Plan/Remedial Work Plan (RAWP/RWP) dated June 2011.

The selected Remedial Action Objectives (RAOs) were designed to achieve the Track 4 remedial program, in accordance with Part 375-3.8(e) and Title 14 - § 27-1415, which imposes cleanup requirements consistent with the restricted use specific to this Site (i.e., commercial use). The remedial action goals were designed to be protective of public health and the environment given the intended use of the Site; and to remove or eliminate identifiable sources of contamination to the extent feasible. The following is a summary of the Remedial Actions performed at the Site:

1. Removal of the nine on-site USTs and any potential associated contaminated soil;

2. Excavation of a test pit in the former suspected UST area to confirm soil quality;

3. Application of five chemical oxidation product and implementation of four Enhanced Fluid Recovery (EFR) events during Site development and subsequent monitoring for the degradation of gasoline-related hydrocarbons in the groundwater;

4. Excavation and disposal of soil for construction;

5. Installation of a vapor barrier beneath the foundation of the entire building structure at the Site;

6. Site cap in the form of structures and pavement or the importation of two feet of clean fill in landscaped areas; and

7. Implementation of institutional controls, including a Site Management Plan (SMP) and Environmental Easement to ensure continual and proper management of any residual contamination.

A vapor barrier will be installed beneath the entire new building to prevent the potential intrusion of subsurface vapors. Natural ventilation of the driveway/parking area would occur and there would be no threat of significant vapors penetrating into the new construction in these areas. Furthermore, there will be no subgrade levels or ground floor guest rooms on Lot 11. Nonetheless, the vapor barrier will be installed beneath the entire new building foundation and subgrade walls. The selected vapor barrier is able to withstand exposure to gasoline-range volatile organic compounds.

1.4.1 Removal of Contaminated Materials from the Site

Soil remediation entailed the removal of the USTs and any associated soil contamination and also included the excavation of test pits in the area of suspected former USTs and in the location where elevated levels of petroleum-related compounds were detected by the RI. Approximately 700 cubic yards of petroleum-contaminated soil were removed. End-point soil samples were collected following the UST and petroleum-contaminated soil removals.

The soil cleanup objectives (SCOs) for the primary contaminants of concern (COCs) and applicable land use for this Site comprises the Part 375 Protection of Groundwater SCOs.

A figure showing areas where excavation was performed and the locations where the end-point samples were collected is provided as Figure 7.

1.4.2 Site-Related Treatment Systems

Several in-situ chemical oxidation (ISCO) groundwater treatments were conducted in the southern portion of the Site where elevated concentrations of gasoline-related VOCs were detected. Since the removal of the USTs and petroleum-contaminated soil in May 2012, AKRF conducted the following in-situ treatments:

- June 2012: Conducted the application of 70 pounds of Regenesis Oxygen Release Compound (ORC) Advanced® and 200 pounds of Regenox™ treatment via 18 temporary injection wells.

- June 2013: Conducted the application of Chemical Oxidation (CO) treatments consisting of approximately 5,300 gallons of an oxidant slurry solution containing 6% sodium persulfate and 8-9% calcium peroxide (approximately 3,000 pounds of sodium persulfate and 4,000 pounds of calcium peroxide) via 24 temporary injection wells.

- August 2013: Conducted the application of CO treatments consisting of approximately 14,900 gallons of a 6% solution of hydrogen peroxide combined with approximately 2.8% ferrous sulfate and 5.5% sodium citrate via 53 temporary injection wells. An additional 1,500 gallons of an 8% solution of sodium persulfate was injected into 16 of the wells where liquid surfacing was observed.

- December 2013: Supplemental in-situ treatment program via a test pit in the southern corner of the site. Approximately 300 pounds of CO material were applied to the exposed water table and underlying soil. The treatment consisted of sodium persulfate combined with an engineered form of calcium peroxide, which has a "capping" agent that allows oxygen release over a longer time frame.

- May 2015: Injected approximately 4,400 gallons of a CO solution containing 5-7% sodium percarbonate activated with minimal sodium citrate and ferrous sulfate via the on-site injection wells.

Enhanced Fluid Recovery (EFR) was conducted following the groundwater treatment events: three events after the December 2013 ISCO; and one event after the

May 2015 event. EFR was not one of the Remedial Actions outlined in the approved RAWP/RWP and was a modification to the plan. In accordance with the July 14, 2014 Modified RWP, AKRF conducted four rounds of Enhanced Fluid Recovery (EFR) from a combination of temporary and permanent on-site wells using a vac truck to remove the desorbed VOCs. The following EFR events were conducted:

Summary of EFR Events

Date	Total Gallons Removed
May 7, 2014	2,228
November 11, 2014	670
January 16, 2015	1,450
August 11 – 13, 2015	8,215

Following each of the groundwater treatment and EFR activities, groundwater was monitored via four permanent monitoring wells installed in this portion of the Site in accordance with the RAWP/RWP.

No long-term treatment systems were installed as part of the Site remedy.

1.4.3 Remaining Contamination

Remediation at the Site included removal of the four known on-site USTs and five UST encountered during the remedial actions, as noted in Section 1.3. A test pit in the suspected former 550-gallon UST area was also conducted to confirm soil quality in this area. During UST and test pit activities, petroleum-contaminated soil was discovered, which was excavated and removed in accordance with the stockpiling and/or direct-loading procedures presented in AKRF's June 2011 RAWP/RWP. Excavation of petroleum-contaminated soil continued vertically and horizontally until no evidence of contamination was noted in the base or sidewalls of the excavation, or until groundwater was encountered. Soil excavation below the water table was only necessary in the areas

beneath the four 4,000-gallon USTs, where soil was excavated to approximately 12 feet below grade. Excavation in the remainder of the area extended to approximately six to seven feet below grade.

The UST and test pit excavation area extended over the majority of the southern portion of the Site. Fifty-one end-point samples were collected for laboratory analysis to confirm the complete removal of petroleum-contaminated soil. Figure 7 shows the excavation and test pit area and the location of all soil end-point samples collected at the Site after completion of Remedial Action..

Tables 1 through 4 summarize the results of all soil samples remaining at the Site after completion of Remedial Action that exceed the Part 375 Protection of Groundwater SCOs. End-point samples were laboratory analyzed for VOCs, SVOC, TAL Metals, PCBs and pesticides.

For the VOC analysis, only acetone in three soil samples [SS-44EW (3'-4'), SS-45EW (3'-4'), and SS-51NW (3'-4')] and methylene chloride in one sample [SS-37B (5'-6')] were detected above the SCOs. Methylene chloride was detected in the laboratory method blank and the methylene detection in the soil samples was identified as a "J" value, indicating that the concentration was below method detection limits and estimated by the laboratory. Acetone and methylene chloride are common laboratory contaminants and are not likely indicative of a past release or spill. Sample SS-37B (5'-6') was diluted in the laboratory due to the presence of non-target compounds in the sample.

For the SVOC analysis, six samples contained up to four compounds slightly above the SCOs, at concentrations ranging from 1.6 ppm to 5.3 ppm [SS-15SW [3'-4'), SS-17WW (3'-4'), SS-20NW (3'-4'), SS-27B (6'-7'), SS-41NW (3'-4'), and SS-48B (6'-7')]. Samples SS-37B (5'-7') and SS-38SW (3'-4') contained up to six compounds above the SCOs at concentrations ranging from 3.2 ppm to 29 ppm. These two samples were diluted in the laboratory due to the presence of non-target compounds. Furthermore, concentration of analytes in SS-37B (5'-7') exceeded the range of the calibration curve and/or linear range of the instrument. Nonetheless, the SVOC concentrations detected

are attributable to the urban fill and not to a release, particularly since no elevated gasoline-related compounds were detected in these samples.

For the metals analysis, only chromium, lead and mercury in 6 samples [SS-17WW (3-4)] were detected at concentrations above their respective SCOs. Concentrations of chromium above the SCO of 19 ppm ranged from 20 ppm to 22 ppm. Concentrations of lead above the SCO of 450 ppm ranged from 550 ppm to 800 ppm. Concentrations of mercury above the SCO of 0.73 ppm ranged from 0.95 ppm to 2 ppm. These detections are attributable to the urban fill and are not indicative of a release or spill.

One PCB (aroclor 1254) was detected in sample SS-20NW (3-4) at a concentration of 0.0268 ppm, below the SCO of 3.2 ppm. This concentration was identified as a "J" value, indicating that the concentration was below method detection limits and was estimated by the laboratory. The PCBs are attributable to the urban fill.

Pesticides lindane delta-BHC and alpha-BHC were detected in samples SS-5NW (5'-6'), SS-36B (5'-6), SS-44EW (3'-4'), and SS-45EW (3'-4'), at concentrations ranging between 0.000546 ppm to 0.00171 ppm. These concentrations were well below the SCOs and some of the concentrations were identified as "J" values. The pesticides are attributable to either past on-site landscaping activities or the urban fill.

Since the entire area will be capped, no exposure to any of the detected metals and compounds will occur following construction of the proposed project.

Despite some rebound, quarterly groundwater monitoring conducted thus far suggests that both the ISCO and EFR events have had a positive effect towards achieving the Remedial Objectives of the RAWP/RWP and if continued, will be effective in achieving the remedial goals over time. Water quality parameters measured in the field during the monitoring events [dissolved oxygen (DO), oxidation reduction potential (ORP), and pH] are indicative of sustained desorption and oxidation, suggesting that additional ISCO and/or EFR events would be effective in further reducing contaminant levels. Based on these conditions, ISCO and EFR treatments will be continued as necessary, as described in Section 3.3.2.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 Introduction

2.1.1 General

Since remaining contaminated groundwater and soil vapor exists beneath the Site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the Site. The EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

2.1.2 Purpose

This plan provides:

- A description of all EC/ICs on the Site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the Site remedy, as determined by the NYSDEC.

2.2 Engineering Controls

2.2.1 Engineering Control Systems

2.2.1.1. Composite Cover

Exposure to remaining contamination in soil/fill at the Site is prevented by a composite cover system placed over the Site. This cover system is composed of concrete-covered sidewalks and concrete building slabs. The Excavation Work Plan that appears in Appendix A outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 4 of this SMP.

As a precaution to prevent potential vapors from entering new construction, a vapor barrier will be installed as part of the waterproofing system beneath the proposed building at the Site. The vapor barrier will consist of Grace Preprufe 300R below the foundation slab, which is capable of withstanding exposure to the gasoline-range VOCs at the Site. The barrier will be installed in accordance with the manufacturer's specifications, including sealing of any penetrations through the foundations. Proof of installation of the vapor barrier will be included in the Professional Engineer (P.E.)-certified Final Engineering Report (FER).

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

2.2.2.1. Composite Cover System

The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

2.2.2.2. Monitored Natural Attenuation

Groundwater will be monitored via four new, post-construction monitoring wells installed in this portion of the Site to evaluate the effectiveness of the in-situ groundwater treatment. The monitoring wells will be screened across the water table and installed in accordance with the QAPP provided in Appendix F. The wells will be installed at the locations shown on Figure 8.

The analytical results of a general chemistry analysis conducted on shallow groundwater samples during AKRF's November 2010 RIR, supported with the field measurements for dissolved oxygen, oxygen reduction potential (ORP), and pH, suggest that reducing conditions exist at the Site that are favorable for the natural biodegradation of the gasoline-related hydrocarbons in groundwater. Therefore, based on the Site conditions delineated by the RI, in-situ treatment is expected to reduce the contaminant levels in the shallow groundwater.

Should long term monitoring of the groundwater reveal that a reduction in the target hydrocarbon levels is not occurring, a revised chemical oxidation injection/treatment plan would be developed for the Site and submitted to the NYSDEC for review and approval.

Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional treatment and/or control measures will be evaluated.

2.3 Institutional Controls

A series of Institutional Controls is required by the RAWP to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Site to restricted commercial uses only.

Adherence to these Institutional Controls on the Site is required by the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater monitoring must be performed as defined in this SMP; and
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP.

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The Site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for restricted commercial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted and restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- Vegetable gardens and farming on the property are prohibited; and
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the

Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

2.3.1 Excavation Work Plan

The Site was remediated for restricted commercial use. Any future intrusive work that will penetrate the soil cover or cap, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix A to this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the Site. A sample HASP is attached as Appendix C to this SMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on future changes to State and federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section A-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5).

The Site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). The Site owner will ensure that Site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in this SMP.

2.4 Inspections and Notifications

2.4.1 Inspections

Inspections of all remedial components installed at the Site will be conducted at the frequency specified in the SMP Monitoring Plan schedule. A comprehensive site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether Engineering Controls continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system;

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

2.4.2 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the Brownfield Cleanup Agreement (BCA), 6NYCRR Part 375, and/or Environmental Conservation Law.
- 7-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.

- Notice within 48-hours of any damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of other Engineering Controls and likewise any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the Site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the Brownfield Cleanup Agreement (BCA), and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing.

2.5 Contingency Plan

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to Axel Schwendt of AKRF, Inc., the Qualified Environmental Professional (QEP). These emergency contact lists must be maintained in an easily accessible location at the Site.

Table A: Emergency Contact Numbers

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

Table B: Contact Numbers

Axel Schwendt (QEP) – AKRF, Inc.	(646) 388-9529
BL Patel – Jiten LLC	(516) 316-7070
Daniele Cervino – Golub & Isabel, P.C.	(973) 703-6578

* Note: Contact numbers subject to change and should be updated as necessary

2.5.2 Map and Directions to Nearest Health Facility

Directions to the hospital are provided below, and a hospital route map is provided as Figure 9.

Hospital Name: Lincoln Medical and Mental Health Center

Phone Number: 718-579-5000

Address/Location: 234 East 149th Street – Bronx, New York

(East 149th Street between Morris and Park Avenues)

Directions:

- Go EAST (RIGHT) on East 136th Street
- LEFT onto Lincoln Avenue
- Lincoln Avenue merges with Morris Avenue
- LEFT onto East 149th Street

- The hospital will be on the left

Total Distance: ½-mile

Total Estimated Time: 10 minutes

2.5.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table B). The list will also posted prominently at the Site and made readily available to all personnel at all times.

3.0 SITE MONITORING PLAN

3.1 Introduction

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the soil cover system, and all affected site media identified below. Monitoring of other Engineering Controls is described in Chapter 4, Operation, Monitoring and Maintenance Plan. This Monitoring Plan may only be revised with the approval of NYSDEC.

3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil;
- Assessing achievement of the remedial performance criteria.
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, this Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Quarterly groundwater monitoring and annual site inspections of the performance of the remedy and overall reduction in contamination on-site will be conducted for the first year. The frequency thereafter will be determined by NYSDEC. Trends in contaminant levels in air, soil, and/or groundwater in the affected areas, will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring programs are summarized in Table C and outlined in detail in Sections 3.2 and 3.3 below.

Table C: Monitoring/Inspection Schedule

Monitoring Program	Frequency*	Matrix	Analysis
1	Quarterly	Groundwater	VOCs, SVOCs
2	Annual	Site Cover	Visual and paperwork inspection
3	Annual	Site-Wide Inspection	Visual and paperwork inspection

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

3.2 Composite Cover System Monitoring

A visual inspection of the composite cover system will be performed by a QEP or person under their supervision on an annual basis to ensure that it continues to effectively prevent direct exposure to residual contamination below the cover. If minor cracking or damage is observed to the composite cover system over less than 25 percent of the paved areas, cracks and/or holes will be patched or repaired as required. If cracking and/or other damage is observed over greater than 25 percent of the paved areas, the area will be repaved with asphalt or concrete to restore its original intended thickness.

An example Site Cover Inspection Form is included in Appendix E. Inspection logs and records of any repairs made to the Site Cover will be included in the Site Management Report.

3.3 Media Monitoring Program

3.3.1 Groundwater Monitoring

Groundwater monitoring will be performed on a periodic basis to assess the performance of the remedy. Groundwater quality parameters were evaluated to determine whether the subsurface environment was likely to sustain natural attenuation. Groundwater analysis indicated that the oxidation-reduction potential (ORP) ranged from -55 millivolts (mV) to -148 mV, the dissolved oxygen (DO) ranged from not detected (ND) to 2.55 milligrams per liter (mg/L), and the pH ranged from 6.38 to 6.76. The combination of an ORP below -50mV and a pH between 5 and 9 are typically acceptable ranges for a natural attenuation environment. Levels of dissolved oxygen can suggest the presence of anaerobic degradation (<1.0 mg/L) or aerobic degradation (>1.0 to 2.0 mg/L). These additional parameters were analyzed and compared to the following ranges to determine whether site conditions are favorable to support anaerobic biodegradation of petroleum-related hydrocarbons and its breakdown compounds:

- Nitrate < 1 mg/L, as it may compete with the reductive pathway;
- Sulfate < 20 mg/L, as it may compete with the reductive pathway;
- Sulfide > 1 mg/L indicating reductive pathway possible; and
- Methane > 0.1 mg/L when sulfate is not elevated, indicating oxidation of VOCs.

The analytical results showed that nitrate, sulfate, and methane were within the favorable criteria for all five groundwater samples selected for analysis of natural attenuation indicator parameters. Since sulfate was present at levels below 20 mg/L (ranging from ND to 19 mg/L) and methane was above 0.1 mg/L (ranging from 0.61 mg/L to 5.37 mg/L), the conditions are even more favorable to reduction. Natural attenuation is further enhanced by relatively high natural alkalinity (66 mg/L to 160 mg/L) detected in the analyzed samples in combination with the suitable natural pH range. This data, supported with the field measurement for dissolved oxygen, ORP, and pH, suggests that reducing conditions exist that will naturally biodegrade the petroleum-related hydrocarbons in groundwater.

The network of monitoring wells has been installed to monitor both up-gradient and down-gradient groundwater conditions at the Site. Groundwater will be monitored via four, post-construction monitoring wells installed to evaluate the effectiveness of the in-situ groundwater treatment and natural attenuation. The monitoring wells were screened across the water table and installed in accordance with the QAPP provided in

Appendix F. The location of the monitoring wells is provided on Figure 8. The Monitoring well construction logs are provided in Appendix G. The network of on-site wells has been designed based on the location of the contaminant plume and groundwater flow direction. The wells will be sampled on a quarterly basis for one year in accordance with the QAPP. The sampling frequency may be modified with the approval NYSDEC. The SMP will be modified to reflect changes in sampling plans approved by NYSDEC.

Deliverables for the groundwater monitoring program are specified below.

3.3.1.1. Sampling Protocol

All monitoring well sampling activities will be recorded in a field book and a groundwater-sampling log presented in Appendix D. Other observations (e.g., well integrity, etc.) will be noted on the well sampling log. The well sampling log will serve as the inspection form for the groundwater monitoring well network.

Prior to collecting the samples, each well will be screened for the presence of VOCs using a PID after removing the well cap. The depth to groundwater will then be measured in the wells using an electronic oil/water interface probe attached to a measuring tape accurate to 0.01 feet; this will also be used to gauge potential measurable product on the surface of the water table. For the deep wells, the oil/water interface probe will also be lowered through the water column until it reaches the bottom of the well to test for DNAPL (sinking product). The water level data, well diameter and depth will be used to calculate the volume of water in each well and any free-phase product will be documented, if present. The wells that do not contain free-phase product will then be purged using low-flow purging techniques, as described in the QAPP.

Groundwater samples will be collected using dedicated pump tubing and placed directly into laboratory-supplied sample bottles. The samples will be analyzed in a laboratory following NYSDEC ASP Category A deliverables. Groundwater samples will be analyzed for volatile organic compounds (VOCs) using EPA Method 8260 and semi-volatile organic compounds (SVOCs) using EPA Method 8270. For wells that contain free-phase product, a sample of the product will be collected and analyzed for flashpoint. All non-dedicated sampling equipment (e.g., submersible pumps and oil/water interface

probe) will be decontaminated between sampling locations using the following procedure:

1. Scrub equipment with a bristle brush using a tap water/Simple Green® solution.
2. Rinse with tap water.
3. Scrub again with a bristle brush using a tap water/Simple Green® solution.
4. Rinse with tap water.
5. Rinse with distilled water.
6. Air-dry the equipment.

3.3.1.2. Monitoring Well Repairs, Replacement And Decommissioning

If biofouling or silt accumulation occurs in the on-site and/or off-site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced (as per the Monitoring Plan), if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of monitoring wells for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent periodic report. Well decommissioning without replacement will be done only with the prior approval of NYSDEC. Well abandonment will be performed in accordance with NYSDEC's "Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be reinstalled in the nearest available location, unless otherwise approved by the NYSDEC.

3.3.2 Continued Monitoring and Treatment Plan

Despite some rebound, quarterly groundwater monitoring conducted thus far suggests that both the ISCO and EFR events have had a positive effect towards achieving the Remedial Objectives of the RAWP/RWP and if continued, will be effective in

achieving the remedial goals over time. Water quality parameters measured in the field during the monitoring events [dissolved oxygen (DO), oxidation reduction potential (ORP), and pH] are indicative of sustained desorption and oxidation, suggesting that additional ISCO and/or EFR events would be effective in further reducing contaminant levels. Based on these conditions, ISCO and EFR treatments will be continued as necessary, as outlined in Section 1.4.3 of this SMP.

In an effort to ensure that ISCO treatments could be applied following redevelopment of the property, five 2-inch injection wells were installed in the area of residual groundwater contamination at the locations shown on Figure 8. Prior to conducting any future ISCO treatment and/or EFR event, the details of such activities will be provided to the NYSDEC for review and approval. Notice will be made seven (7) calendar days prior to actual start of any such field activities.

3.4 Site-Wide Inspection

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. Site-wide inspections will also be performed after all severe weather conditions that may affect Engineering Controls or monitoring devices. During these inspections, an inspection form will be completed (Appendix H). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General Site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- Confirm that site records are up to date.

3.5 Monitoring Quality Assurance/Quality Control

All sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the Site (Appendix H). Main Components of the QAPP include:

- QA/QC Objectives for Data Measurement;

- Sampling Program:
    - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
    - Sample holding times will be in accordance with the NYSDEC ASP requirements.
    - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Custody;
- Calibration Procedures:
    - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.
    - The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures;
- Internal QC and Checks;
- QA Performance and System Audits;
- Preventative Maintenance Procedures and Schedules; and
- Corrective Action Measures.

3.6 Monitoring Reporting Requirements

Forms and any other information generated during regular monitoring events and inspections will be kept on file on-site. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. A letter report will also be prepared, if required by NYSDEC, subsequent to each sampling event. The report (or letter) will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (o be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether groundwater conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the monitoring program deliverables are summarized in Table D below.

Table D: Schedule of Monitoring/Inspection Reports

Task	Reporting Frequency*
Soil Cap Inspection	Annually
Site-Wide Inspection	Annually
Periodic Review Report	Every five years
Quarterly Monitoring Reports	Quarterly, if requested

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC

4.0 OPERATION AND MAINTENANCE PLAN

The site remedy does not rely on any mechanical systems, such as sub-slab depressurization systems or air sparge/ soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP.

5.0 INSPECTIONS, REPORTING AND CERTIFICATIONS

5.1 Site Inspections

5.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan of this SMP. At a minimum, a site-wide inspection will be conducted annually. Inspections of remedial components will also be conducted when a breakdown of any treatment system component has occurred or whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

All inspections and monitoring events will be recorded on the appropriate forms for their respective system which are contained in Appendix E (Soil Cap Inspection Form). Additionally, a general site-wide inspection form will be completed during the site-wide inspection (see Appendix H). These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including all media sampling data and system maintenance reports, generated for the Site during the reporting period will be provided in electronic format in the Periodic Review Report.

5.1.3 Evaluation of Records and Reporting

The results of the inspection and site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;
- Operation and maintenance activities are being conducted properly; and, based on the above items; and
- The Site remedy continues to be protective of public health and the environment and is performing as designed in the RAWP and FER.

5.2 Certification of Engineering and Institutional Controls

The engineering control employed for the Site included the installation of a vapor barrier. Institutional controls employed included: 1) this SMP, 2) an Environmental Easement; and 3) the requirement for annual certification. After the last inspection of the reporting period, a qualified environmental professional to practice in New York State will prepare the following certification:

For each institutional and engineering control identified for the Site, I certify that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- Based on the visual inspection of the composite cover system performed by a QEP as described in Section 3.2, the institutional controls and engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- Based on the visual inspection of the composite cover system performed, nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- Use of the Site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program and generally accepted engineering practices;
- The information presented in this report is accurate and complete;

- 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, Michelle Lapin, of AKRF, Inc., am certifying as Owner's Designated Site Representative for the Site;
- No new information has come to my attention, including groundwater monitoring data from wells located at the Site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid; and

  Every five years the following certification will be added:

- The assumptions made in the qualitative exposure assessment remain valid.

The signed certification will be included in the Periodic Review Report described below.

5.3 Periodic Review Report

A Periodic Review Report will be submitted to the Department every year, beginning eighteen months after the Certificate of Completion is issued, unless less frequent reporting is approved by the NYSDEC. In the event that the Site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Site described in Appendix B (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 45 days of the end of each certification period. Media sampling results will also incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site;
- Results of the required annual site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the Site during the reporting period in electronic format;

- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables and graphical representations of contaminants of concern by media (groundwater), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format; and
- A Site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the site-specific RAWP;
    - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
    - Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
    - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
    - The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted, in hard-copy format and electronic format, to the NYSDEC Central Office.

5.4 Corrective Measures Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a corrective measures plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the NYSDEC.

TABLES

Table 1
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Volatile Organic Compounds

Client ID	NYSDEC	SS-1-SW (5'-6')	SS-2-SW (4'-5')	SS-3-WW (6'-7')	SS-4-WW (6'-7')	SS-5-NW (5'-6')	SS-6-NW (6'-7')	SS-7-B (12')
Lab Sample ID	Part 375	L1209484-01	L1209484-02	L1209484-03	L1209484-04	L1209484-05	L1209484-06	L1209484-07
Date Sampled	Groundwater	5/25/2012	5/25/2012	5/25/2012	5/25/2012	5/25/2012	5/25/2012	5/25/2012
Dilution	SCO	1	1	1	1	1	1	1
mg/kg	mg/kg							
1,1,1,2-Tetrachloroethane	NS	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
1,1,1-Trichloroethane	0.68	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
1,1,2,2-Tetrachloroethane	0.6	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
1,1,2-Trichloroethane	NS	0.0039 U	0.0039 U	0.0043 U	0.0042 U	0.004 U	0.004 U	0.0051 U
1,1-Dichloroethane	0.27	0.0039 U	0.0039 U	0.0043 U	0.0042 U	0.004 U	0.004 U	0.0051 U
1,1-Dichloroethene	0.33	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
1,1-Dichloropropene	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
1,2,3-Trichlorobenzene	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
1,2,3-Trichloropropane	0.34	0.026 U	0.026 U	0.028 U	0.028 U	0.027 U	0.026 U	0.034 U
1,2,4,5-Tetramethylbenzene	NS	0.01 U	0.01 U	0.011 U	0.011 U	0.011 U	0.011 U	0.014 U
1,2,4-Trichlorobenzene	3.4	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
1,2,4-Trimethylbenzene	3.6	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
1,2-Dibromo-3-chloropropane	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
1,2-Dibromoethane	NS	0.01 U	0.01 U	0.011 U	0.011 U	0.011 U	0.011 U	0.014 U
1,2-Dichlorobenzene	1.1	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
1,2-Dichloroethane	0.02	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
1,2-Dichloropropane	NS	0.009 U	0.0091 U	0.0099 U	0.0097 U	0.0094 U	0.0093 U	0.012 U
1,3,5-Trimethylbenzene	8.4	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
1,3-Dichlorobenzene	2.4	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
1,3-Dichloropropane	0.3	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
1,4-Dichlorobenzene	1.8	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
1,4-Diethylbenzene	NS	0.01 U	0.01 U	0.011 U	0.011 U	0.011 U	0.011 U	0.014 U
2,2-Dichloropropane	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
2-Butanone	0.3	0.026 U	0.026 U	0.028 U	0.028 U	0.027 U	0.026 U	0.034 U
2-Hexanone	NS	0.026 U	0.026 U	0.028 U	0.028 U	0.027 U	0.026 U	0.034 U
4-Ethyltoluene	NS	0.01 U	0.01 U	0.011 U	0.011 U	0.011 U	0.011 U	0.014 U
4-Methyl-2-pentanone	1	0.026 U	0.026 U	0.028 U	0.028 U	0.027 U	0.026 U	0.034 U
Acetone	0.05	0.026 U	0.026 U	0.028 U	0.028 U	0.027 U	0.026 U	0.034 U
Acrylonitrile	NS	0.026 U	0.026 U	0.028 U	0.028 U	0.027 U	0.026 U	0.034 U
Benzene	0.06	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
Bromobenzene	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
Bromochloromethane	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
Bromodichloromethane	NS	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
Bromoform	NS	0.01 U	0.01 U	0.011 U	0.011 U	0.011 U	0.011 U	0.014 U
Bromomethane	NS	0.0052 U	0.0052 U	0.0057 U	0.0056 U	0.0054 U	0.0053 U	0.0068 U
Carbon disulfide	2.7	0.026 U	0.026 U	0.028 U	0.028 U	0.027 U	0.026 U	0.034 U
Carbon tetrachloride	0.76	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
Chlorobenzene	1.1	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
Chloroethane	1.9	0.0052 U	0.0052 U	0.0057 U	0.0056 U	0.0054 U	0.0053 U	0.0068 U
Chloroform	0.37	0.0039 U	0.0039 U	0.0043 U	0.0042 U	0.004 U	0.004 U	0.0051 U
Chloromethane	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
cis-1,2-Dichloroethene	0.25	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
cis-1,3-Dichloropropene	NS	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
Dibromochloromethane	NS	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
Dibromomethane	NS	0.026 U	0.026 U	0.028 U	0.028 U	0.027 U	0.026 U	0.034 U
Dichlorodifluoromethane	NS	0.026 U	0.026 U	0.028 U	0.028 U	0.027 U	0.026 U	0.034 U
Ethyl ether	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
Ethylbenzene	1	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
Hexachlorobutadiene	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
Isopropylbenzene	2.3	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
Methyl tert butyl ether	0.93	0.0052 U	0.0052 U	0.0034 J	0.0026 J	0.0054 U	0.0023 J	0.0077
Methylene chloride	0.05	0.026 U	0.0026 J	0.028 U	0.0027 J	0.027 U	0.0022 J	0.0028 J
Naphthalene	12	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
n-Butylbenzene	12	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
n-Propylbenzene	3.9	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
o-Chlorotoluene	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
o-Xylene	1.6	0.0052 U	0.0052 U	0.0057 U	0.0056 U	0.0054 U	0.0053 U	0.0068 U
p/m-Xylene	1.6	0.0052 U	0.0052 U	0.0057 U	0.0056 U	0.0054 U	0.0053 U	0.0068 U
p-Chlorotoluene	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
p-Isopropyltoluene	10	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
sec-Butylbenzene	11	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
Styrene	NS	0.0052 U	0.0052 U	0.0057 U	0.0056 U	0.0054 U	0.0053 U	0.0068 U
tert-Butylbenzene	5.9	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
Tetrachloroethene	1.3	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
Toluene	0.7	0.0039 U	0.0039 U	0.0043 U	0.0042 U	0.004 U	0.004 U	0.0051 U
trans-1,2-Dichloroethene	0.19	0.0039 U	0.0039 U	0.0043 U	0.0042 U	0.004 U	0.004 U	0.0051 U
trans-1,3-Dichloropropene	NS	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
trans-1,4-Dichloro-2-butene	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
Trichloroethene	0.47	0.0026 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0034 U
Trichlorofluoromethane	NS	0.013 U	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U
Vinyl acetate	NS	0.026 U	0.026 U	0.028 U	0.028 U	0.027 U	0.026 U	0.034 U
Vinyl chloride	0.02	0.0052 U	0.0052 U	0.0057 U	0.0056 U	0.0054 U	0.0053 U	0.0068 U

Table 1
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Volatile Organic Compounds

Client ID	NYSDEC	SS-8-B (12')	SS-9-B (12')	SS-10-B (12')	SS-11-B (12')	SS-12-B (13')	SS-13-B (12')	SS-14-B (13')	SS-16SW (3-4)
Lab Sample ID	Part 375	L1209484-08	L1209484-09	L1209484-10	L1209484-11	L1209484-12	L1209484-13	L1209484-14	L1209806-02
Date Sampled	Groundwater	5/25/2012	5/25/2012	5/25/2012	5/25/2012	5/25/2012	5/25/2012	5/25/2012	6/1/2012
Dilution	SCO	1	1	1	1	1	1	1	1
mg/kg	mg/kg								
1,1,1,2-Tetrachloroethane	NS	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
1,1,1-Trichloroethane	0.68	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
1,1,2,2-Tetrachloroethane	0.6	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
1,1,2-Trichloroethane	NS	0.0051 U	0.0051 U	0.0051 U	0.0051 U	0.0051 U	0.0049 U	0.005 U	0.0043 U
1,1-Dichloroethane	0.27	0.0051 U	0.0051 U	0.0051 U	0.0051 U	0.0051 U	0.0049 U	0.005 U	0.0043 U
1,1-Dichloroethene	0.33	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
1,1-Dichloropropene	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
1,2,3-Trichlorobenzene	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
1,2,3-Trichloropropane	0.34	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.032 U	0.033 U	0.029 U
1,2,4,5-Tetramethylbenzene	NS	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.013 U	0.013 U	0.011 U
1,2,4-Trichlorobenzene	3.4	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
1,2,4-Trimethylbenzene	3.6	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
1,2-Dibromo-3-chloropropane	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
1,2-Dibromoethane	NS	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.013 U	0.013 U	0.011 U
1,2-Dichlorobenzene	1.1	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
1,2-Dichloroethane	0.02	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
1,2-Dichloropropane	NS	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.011 U	0.012 U	0.01 U
1,3,5-Trimethylbenzene	8.4	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
1,3-Dichlorobenzene	2.4	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
1,3-Dichloropropane	0.3	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
1,4-Dichlorobenzene	1.8	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
1,4-Diethylbenzene	NS	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.013 U	0.013 U	0.011 U
2,2-Dichloropropane	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
2-Butanone	0.3	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.032 U	0.033 U	0.029 U
2-Hexanone	NS	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.032 U	0.033 U	0.029 U
4-Ethyltoluene	NS	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.013 U	0.013 U	0.011 U
4-Methyl-2-pentanone	1	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.032 U	0.033 U	0.029 U
Acetone	0.05	0.034 U	0.034 U	0.016 J	0.034 U	0.034 U	0.032 U	0.033 U	0.029 U
Acrylonitrile	NS	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.032 U	0.033 U	0.029 U
Benzene	0.06	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
Bromobenzene	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
Bromochloromethane	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
Bromodichloromethane	NS	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
Bromoform	NS	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.013 U	0.013 U	0.011 U
Bromomethane	NS	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0065 U	0.0067 U	0.0057 U
Carbon disulfide	2.7	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.032 U	0.033 U	0.029 U
Carbon tetrachloride	0.76	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
Chlorobenzene	1.1	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
Chloroethane	1.9	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0065 U	0.0067 U	0.0057 U
Chloroform	0.37	0.0051 U	0.0051 U	0.0051 U	0.0051 U	0.0051 U	0.0049 U	0.005 U	0.0043 U
Chloromethane	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
cis-1,2-Dichloroethene	0.25	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
cis-1,3-Dichloropropene	NS	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
Dibromochloromethane	NS	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
Dibromomethane	NS	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.032 U	0.033 U	0.029 U
Dichlorodifluoromethane	NS	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.032 U	0.033 U	0.029 U
Ethyl ether	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
Ethylbenzene	1	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
Hexachlorobutadiene	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
Isopropylbenzene	2.3	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
Methyl tert butyl ether	0.93	0.0081	0.0068 U	0.0057 J	0.0067 J	0.0083	0.0064 J	0.0067 U	0.0057 U
Methylene chloride	0.05	0.034 U	0.034 U	0.003 J	0.0038 J	0.0028 J	0.0026 J	0.0034 J	0.029 U
Naphthalene	12	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
n-Butylbenzene	12	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
n-Propylbenzene	3.9	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
o-Chlorotoluene	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
o-Xylene	1.6	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0065 U	0.0067 U	0.0057 U
p/m-Xylene	1.6	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0065 U	0.0067 U	0.0057 U
p-Chlorotoluene	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
p-Isopropyltoluene	10	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
sec-Butylbenzene	11	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
Styrene	NS	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0065 U	0.0067 U	0.0057 U
tert-Butylbenzene	5.9	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
Tetrachloroethene	1.3	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
Toluene	0.7	0.0051 U	0.0051 U	0.0051 U	0.0051 U	0.0051 U	0.0049 U	0.005 U	0.0043 U
trans-1,2-Dichloroethene	0.19	0.0051 U	0.0051 U	0.0051 U	0.0051 U	0.0051 U	0.0049 U	0.005 U	0.0043 U
trans-1,3-Dichloropropene	NS	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
trans-1,4-Dichloro-2-butene	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
Trichloroethene	0.47	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U	0.0032 U	0.0033 U	0.0029 U
Trichlorofluoromethane	NS	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.014 U
Vinyl acetate	NS	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.032 U	0.033 U	0.029 U
Vinyl chloride	0.02	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0065 U	0.0067 U	0.0057 U

Table 1
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Volatile Organic Compounds

Client ID	NYSDEC	SS-17WW (3-4)	SS-15SW (3-4)	SS-18WW (3-4)	SS-19WW (3-4)	SS-20NW (3-4)	SS-21NW (3-4)	SS-22EW (3-4)	SS-23EW (3-4)
Lab Sample ID	Part 375	L1209806-03	L1209806-01	L1209806-04	L1209806-05	L1209806-06	L1209806-07	L1209806-08	L1209806-09
Date Sampled	Groundwater	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012
Dilution	SCO	1	1	1	1	1	1	1	1
			Duplicate						
mg/kg	mg/kg								
1,1,1,2-Tetrachloroethane	NS	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
1,1,1-Trichloroethane	0.68	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
1,1,2,2-Tetrachloroethane	0.6	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
1,1,2-Trichloroethane	NS	0.0042 U	0.004 U	0.0043 U	0.0043 U	0.0042 U	0.0041 U	0.0041 U	0.0042 U
1,1-Dichloroethane	0.27	0.0042 U	0.004 U	0.0043 U	0.0043 U	0.0042 U	0.0041 U	0.0041 U	0.0042 U
1,1-Dichloroethene	0.33	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
1,1-Dichloropropene	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
1,2,3-Trichlorobenzene	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
1,2,3-Trichloropropane	0.34	0.028 U	0.027 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U	0.028 U
1,2,4,5-Tetramethylbenzene	NS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	3.4	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
1,2,4-Trimethylbenzene	3.6	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
1,2-Dibromo-3-chloropropane	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
1,2-Dibromoethane	NS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2-Dichlorobenzene	1.1	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
1,2-Dichloroethane	0.02	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
1,2-Dichloropropane	NS	0.0097 U	0.0094 U	0.0099 U	0.0099 U	0.0098 U	0.0096 U	0.0095 U	0.0098 U
1,3,5-Trimethylbenzene	8.4	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
1,3-Dichlorobenzene	2.4	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
1,3-Dichloropropane	0.3	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
1,4-Dichlorobenzene	1.8	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
1,4-Diethylbenzene	NS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
2,2-Dichloropropane	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
2-Butanone	0.3	0.028 U	0.027 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U	0.028 U
2-Hexanone	NS	0.028 U	0.027 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U	0.028 U
4-Ethyltoluene	NS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
4-Methyl-2-pentanone	1	0.028 U	0.027 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U	0.028 U
Acetone	0.05	0.028 U	0.027 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U	0.028 U
Acrylonitrile	NS	0.028 U	0.027 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U	0.028 U
Benzene	0.06	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
Bromobenzene	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
Bromochloromethane	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
Bromodichloromethane	NS	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
Bromoform	NS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
Bromomethane	NS	0.0056 U	0.0054 U	0.0057 U	0.0057 U	0.0056 U	0.0055 U	0.0054 U	0.0056 U
Carbon disulfide	2.7	0.028 U	0.027 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U	0.028 U
Carbon tetrachloride	0.76	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
Chlorobenzene	1.1	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
Chloroethane	1.9	0.0056 U	0.0054 U	0.0057 U	0.0057 U	0.0056 U	0.0055 U	0.0054 U	0.0056 U
Chloroform	0.37	0.0042 U	0.004 U	0.0043 U	0.0043 U	0.0042 U	0.0041 U	0.0041 U	0.0042 U
Chloromethane	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
cis-1,2-Dichloroethene	0.25	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
cis-1,3-Dichloropropene	NS	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
Dibromochloromethane	NS	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
Dibromomethane	NS	0.028 U	0.027 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U	0.028 U
Dichlorodifluoromethane	NS	0.028 U	0.027 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U	0.028 U
Ethyl ether	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
Ethylbenzene	1	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
Hexachlorobutadiene	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
Isopropylbenzene	2.3	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
Methyl tert butyl ether	0.93	0.0056 U	0.0054 U	0.0057 U	0.0057 U	0.0056 U	0.0055 U	0.0054 U	0.0056 U
Methylene chloride	0.05	0.028 U	0.027 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U	0.028 U
Naphthalene	12	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
n-Butylbenzene	12	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
n-Propylbenzene	3.9	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
o-Chlorotoluene	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
o-Xylene	1.6	0.0056 U	0.0054 U	0.0057 U	0.0057 U	0.0056 U	0.0055 U	0.0054 U	0.0056 U
p/m-Xylene	1.6	0.0056 U	0.0054 U	0.0057 U	0.0057 U	0.0056 U	0.0055 U	0.0054 U	0.0056 U
p-Chlorotoluene	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
p-Isopropyltoluene	10	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
sec-Butylbenzene	11	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
Styrene	NS	0.0056 U	0.0054 U	0.0057 U	0.0057 U	0.0056 U	0.0055 U	0.0054 U	0.0056 U
tert-Butylbenzene	5.9	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
Tetrachloroethene	1.3	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
Toluene	0.7	0.0042 U	0.004 U	0.0043 U	0.0043 U	0.0042 U	0.0041 U	0.0041 U	0.0042 U
trans-1,2-Dichloroethene	0.19	0.0042 U	0.004 U	0.0043 U	0.0043 U	0.0042 U	0.0041 U	0.0041 U	0.0042 U
trans-1,3-Dichloropropene	NS	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
trans-1,4-Dichloro-2-butene	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
Trichloroethene	0.47	0.0028 U	0.0027 U	0.0028 U	0.0028 U	0.0028 U	0.0027 U	0.0027 U	0.0028 U
Trichlorofluoromethane	NS	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
Vinyl acetate	NS	0.028 U	0.027 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U	0.028 U
Vinyl chloride	0.02	0.0056 U	0.0054 U	0.0057 U	0.0057 U	0.0056 U	0.0055 U	0.0054 U	0.0056 U

Table 1
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Volatile Organic Compounds

Client ID	NYSDEC	SS-39EW (3-4)	SS-24EW (3-4)	SS-40EW (3-4)	SS-25B (6-7)	SS-26B (6-7)	SS-27B (6-7)	SS-28B (6-7)	SS-29B (6-7)
Lab Sample ID	Part 375	L1209806-25	L1209806-10	L1209806-26	L1209806-11	L1209806-12	L1209806-13	L1209806-14	L1209806-15
Date Sampled	Groundwater	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012
Dilution	SCO	1	1	1	1	1	1	1	1
		Duplicate		Duplicate					
mg/kg	mg/kg								
1,1,1,2-Tetrachloroethane	NS	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
1,1,1-Trichloroethane	0.68	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
1,1,2,2-Tetrachloroethane	0.6	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
1,1,2-Trichloroethane	NS	0.0041 U	0.0041 U	0.004 U	0.0039 U	0.004 U	0.004 U	0.004 U	0.004 U
1,1-Dichloroethane	0.27	0.0041 U	0.0041 U	0.004 U	0.0039 U	0.004 U	0.004 U	0.004 U	0.004 U
1,1-Dichloroethene	0.33	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
1,1-Dichloropropene	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
1,2,3-Trichlorobenzene	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
1,2,3-Trichloropropane	0.34	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U	0.026 U	0.027 U	0.027 U
1,2,4,5-Tetramethylbenzene	NS	0.011 U	0.011 U	0.011 U	0.01 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	3.4	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
1,2,4-Trimethylbenzene	3.6	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
1,2-Dibromo-3-chloropropane	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
1,2-Dibromoethane	NS	0.011 U	0.011 U	0.011 U	0.01 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2-Dichlorobenzene	1.1	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
1,2-Dichloroethane	0.02	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
1,2-Dichloropropane	NS	0.0096 U	0.0095 U	0.0094 U	0.0092 U	0.0093 U	0.0093 U	0.0094 U	0.0094 U
1,3,5-Trimethylbenzene	8.4	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
1,3-Dichlorobenzene	2.4	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
1,3-Dichloropropane	0.3	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
1,4-Dichlorobenzene	1.8	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
1,4-Diethylbenzene	NS	0.011 U	0.011 U	0.011 U	0.01 U	0.011 U	0.011 U	0.011 U	0.011 U
2,2-Dichloropropane	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
2-Butanone	0.3	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U	0.026 U	0.027 U	0.027 U
2-Hexanone	NS	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U	0.026 U	0.027 U	0.027 U
4-Ethyltoluene	NS	0.011 U	0.011 U	0.011 U	0.01 U	0.011 U	0.011 U	0.011 U	0.011 U
4-Methyl-2-pentanone	1	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U	0.026 U	0.027 U	0.027 U
Acetone	0.05	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U	0.026 U	0.027 U	0.027 U
Acrylonitrile	NS	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U	0.026 U	0.027 U	0.027 U
Benzene	0.06	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
Bromobenzene	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
Bromochloromethane	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
Bromodichloromethane	NS	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
Bromoform	NS	0.011 U	0.011 U	0.011 U	0.01 U	0.011 U	0.011 U	0.011 U	0.011 U
Bromomethane	NS	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U
Carbon disulfide	2.7	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U	0.026 U	0.027 U	0.027 U
Carbon tetrachloride	0.76	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
Chlorobenzene	1.1	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
Chloroethane	1.9	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U
Chloroform	0.37	0.0041 U	0.0041 U	0.004 U	0.0039 U	0.004 U	0.004 U	0.004 U	0.004 U
Chloromethane	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
cis-1,2-Dichloroethene	0.25	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
cis-1,3-Dichloropropene	NS	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
Dibromochloromethane	NS	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
Dibromomethane	NS	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U	0.026 U	0.027 U	0.027 U
Dichlorodifluoromethane	NS	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U	0.026 U	0.027 U	0.027 U
Ethyl ether	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
Ethylbenzene	1	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
Hexachlorobutadiene	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
Isopropylbenzene	2.3	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
Methyl tert butyl ether	0.93	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U
Methylene chloride	0.05	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U	0.026 U	0.027 U	0.027 U
Naphthalene	12	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
n-Butylbenzene	12	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
n-Propylbenzene	3.9	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
o-Chlorotoluene	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
o-Xylene	1.6	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U
p/m-Xylene	1.6	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U
p-Chlorotoluene	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
p-Isopropyltoluene	10	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
sec-Butylbenzene	11	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
Styrene	NS	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U
tert-Butylbenzene	5.9	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
Tetrachloroethene	1.3	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
Toluene	0.7	0.0041 U	0.0041 U	0.004 U	0.0039 U	0.004 U	0.004 U	0.004 U	0.004 U
trans-1,2-Dichloroethene	0.19	0.0041 U	0.0041 U	0.004 U	0.0039 U	0.004 U	0.004 U	0.004 U	0.004 U
trans-1,3-Dichloropropene	NS	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
trans-1,4-Dichloro-2-butene	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
Trichloroethene	0.47	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U
Trichlorofluoromethane	NS	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
Vinyl acetate	NS	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U	0.026 U	0.027 U	0.027 U
Vinyl chloride	0.02	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U

Table 1
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Volatile Organic Compounds

Client ID	NYSDEC	SS-30B (6-7)	SS-31B (6-7)	SS-32B (6-7)	SS-33B (6-7)	SS-34B (6-7)	SS-35B (6-7)	SS-36B (5-6)
Lab Sample ID	Part 375	L1209806-16	L1209806-17	L1209806-18	L1209806-19	L1209806-20	L1209806-21	L1209806-22
Date Sampled	Groundwater	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012
Dilution	SCO	1	1	1	1	1	1	1
mg/kg	mg/kg							
1,1,1,2-Tetrachloroethane	NS	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
1,1,1-Trichloroethane	0.68	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
1,1,2,2-Tetrachloroethane	0.6	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
1,1,2-Trichloroethane	NS	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.0041 U	0.0045 U
1,1-Dichloroethane	0.27	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.0041 U	0.0045 U
1,1-Dichloroethene	0.33	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
1,1-Dichloropropene	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
1,2,3-Trichlorobenzene	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
1,2,3-Trichloropropane	0.34	0.027 U	0.026 U	0.026 U	0.027 U	0.027 U	0.027 U	0.03 U
1,2,4,5-Tetramethylbenzene	NS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.012 U
1,2,4-Trichlorobenzene	3.4	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
1,2,4-Trimethylbenzene	3.6	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
1,2-Dibromo-3-chloropropane	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
1,2-Dibromoethane	NS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.012 U
1,2-Dichlorobenzene	1.1	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
1,2-Dichloroethane	0.02	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
1,2-Dichloropropane	NS	0.0094 U	0.0093 U	0.0093 U	0.0094 U	0.0094 U	0.0095 U	0.01 U
1,3,5-Trimethylbenzene	8.4	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
1,3-Dichlorobenzene	2.4	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
1,3-Dichloropropane	0.3	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
1,4-Dichlorobenzene	1.8	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
1,4-Diethylbenzene	NS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.012 U
2,2-Dichloropropane	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
2-Butanone	0.3	0.027 U	0.026 U	0.026 U	0.027 U	0.027 U	0.027 U	0.03 U
2-Hexanone	NS	0.027 U	0.026 U	0.026 U	0.027 U	0.027 U	0.027 U	0.03 U
4-Ethyltoluene	NS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.012 U
4-Methyl-2-pentanone	1	0.027 U	0.026 U	0.026 U	0.027 U	0.027 U	0.027 U	0.03 U
Acetone	0.05	0.027 U	0.026 U	0.026 U	0.027 U	0.027 U	0.027 U	0.03 U
Acrylonitrile	NS	0.027 U	0.026 U	0.026 U	0.027 U	0.027 U	0.027 U	0.03 U
Benzene	0.06	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
Bromobenzene	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
Bromochloromethane	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
Bromodichloromethane	NS	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
Bromoform	NS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.012 U
Bromomethane	NS	0.0054 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U	0.0054 U	0.006 U
Carbon disulfide	2.7	0.027 U	0.026 U	0.026 U	0.027 U	0.027 U	0.027 U	0.03 U
Carbon tetrachloride	0.76	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
Chlorobenzene	1.1	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
Chloroethane	1.9	0.0054 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U	0.0054 U	0.006 U
Chloroform	0.37	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.0041 U	0.0045 U
Chloromethane	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
cis-1,2-Dichloroethene	0.25	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
cis-1,3-Dichloropropene	NS	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
Dibromochloromethane	NS	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
Dibromomethane	NS	0.027 U	0.026 U	0.026 U	0.027 U	0.027 U	0.027 U	0.03 U
Dichlorodifluoromethane	NS	0.027 U	0.026 U	0.026 U	0.027 U	0.027 U	0.027 U	0.03 U
Ethyl ether	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
Ethylbenzene	1	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
Hexachlorobutadiene	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
Isopropylbenzene	2.3	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
Methyl tert butyl ether	0.93	0.0054 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U	0.0054 U	0.006 U
Methylene chloride	0.05	0.027 U	0.026 U	0.026 U	0.027 U	0.027 U	0.027 U	0.03 U
Naphthalene	12	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
n-Butylbenzene	12	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
n-Propylbenzene	3.9	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
o-Chlorotoluene	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
o-Xylene	1.6	0.0054 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U	0.0054 U	0.006 U
p/m-Xylene	1.6	0.0054 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U	0.0054 U	0.006 U
p-Chlorotoluene	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
p-Isopropyltoluene	10	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
sec-Butylbenzene	11	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
Styrene	NS	0.0054 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U	0.0054 U	0.006 U
tert-Butylbenzene	5.9	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
Tetrachloroethene	1.3	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
Toluene	0.7	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.0041 U	0.0045 U
trans-1,2-Dichloroethene	0.19	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.0041 U	0.0045 U
trans-1,3-Dichloropropene	NS	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
trans-1,4-Dichloro-2-butene	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
Trichloroethene	0.47	0.0027 U	0.0026 U	0.0026 U	0.0027 U	0.0027 U	0.0027 U	0.003 U
Trichlorofluoromethane	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U	0.015 U
Vinyl acetate	NS	0.027 U	0.026 U	0.026 U	0.027 U	0.027 U	0.027 U	0.03 U
Vinyl chloride	0.02	0.0054 U	0.0053 U	0.0053 U	0.0054 U	0.0054 U	0.0054 U	0.006 U

Table 1
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Volatile Organic Compounds

Client ID	NYSDEC	SS-37B (5-6)	SS-38SW (3-4)	SS-41NW (3-4)	SS-42NW (3-4)	SS-43NW (3-4)	SS-44 EW (3-4)	SS-45 EW (3-4)	SS-46 NW (3-4)
Lab Sample ID	Part 375	L1209806-23	L1209806-24	L1209806-27	L1209806-28	L1209806-29	L1209967-01	L1209967-02	L1209967-03
Date Sampled	Groundwater	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/5/2012	6/5/2012	6/4/2012
Dilution	SCO	40	1	1	1	1	1	1	1
mg/kg	mg/kg								
1,1,1,2-Tetrachloroethane	NS	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
1,1,1-Trichloroethane	0.68	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
1,1,2,2-Tetrachloroethane	0.6	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
1,1,2-Trichloroethane	NS	0.17 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0042 U	0.0042 U	0.0041 U
1,1-Dichloroethane	0.27	0.17 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0042 U	0.0042 U	0.0041 U
1,1-Dichloroethene	0.33	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
1,1-Dichloropropene	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
1,2,3-Trichlorobenzene	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
1,2,3-Trichloropropane	0.34	1.1 U	0.027 U	0.027 U	0.027 U	0.026 U	0.028 U	0.028 U	0.027 U
1,2,4,5-Tetramethylbenzene	NS	2.3	0.011 U	0.011 U	0.011 U	0.011 U	0.11	0.066	0.011 U
1,2,4-Trichlorobenzene	3.4	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
1,2,4-Trimethylbenzene	3.6	1.2	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.0048 J	0.014 U
1,2-Dibromo-3-chloropropane	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
1,2-Dibromoethane	NS	0.44 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2-Dichlorobenzene	1.1	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
1,2-Dichloroethane	0.02	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
1,2-Dichloropropane	NS	0.39 U	0.0096 U	0.0094 U	0.0095 U	0.0093 U	0.0097 U	0.0097 U	0.0096 U
1,3,5-Trimethylbenzene	8.4	0.68	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
1,3-Dichlorobenzene	2.4	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
1,3-Dichloropropane	0.3	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
1,4-Dichlorobenzene	1.8	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
1,4-Diethylbenzene	NS	7.9	0.011 U	0.011 U	0.011 U	0.011 U	0.025	0.016	0.011 U
2,2-Dichloropropane	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
2-Butanone	0.3	1.1 U	0.027 U	0.027 U	0.027 U	0.026 U	0.011 J	0.014 J	0.027 U
2-Hexanone	NS	1.1 U	0.027 U	0.027 U	0.027 U	0.026 U	0.028 U	0.028 U	0.027 U
4-Ethyltoluene	NS	0.64	0.011 U	0.011 U	0.011 U	0.011 U	0.0017 J	0.0025 J	0.011 U
4-Methyl-2-pentanone	1	1.1 U	0.027 U	0.027 U	0.027 U	0.026 U	0.028 U	0.028 U	0.027 U
Acetone	0.05	1.1 U	0.027 U	0.027 U	0.027 U	0.026 U	**0.069**	**0.084**	0.027 U
Acrylonitrile	NS	1.1 U	0.027 U	0.027 U	0.027 U	0.026 U	0.028 U	0.028 U	0.027 U
Benzene	0.06	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
Bromobenzene	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
Bromochloromethane	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
Bromodichloromethane	NS	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
Bromoform	NS	0.44 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
Bromomethane	NS	0.54	0.0055 U	0.0021 J	0.0054 U	0.0053 U	0.0056 U	0.0056 U	0.0055 U
Carbon disulfide	2.7	1.1 U	0.027 U	0.027 U	0.027 U	0.026 U	0.028 U	0.0034 J	0.027 U
Carbon tetrachloride	0.76	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
Chlorobenzene	1.1	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
Chloroethane	1.9	0.22 U	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0056 U	0.0056 U	0.0055 U
Chloroform	0.37	0.17 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0042 U	0.0042 U	0.0041 U
Chloromethane	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
cis-1,2-Dichloroethene	0.25	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
cis-1,3-Dichloropropene	NS	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
Dibromochloromethane	NS	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
Dibromomethane	NS	1.1 U	0.027 U	0.027 U	0.027 U	0.026 U	0.028 U	0.028 U	0.027 U
Dichlorodifluoromethane	NS	1.1 U	0.027 U	0.027 U	0.027 U	0.026 U	0.028 U	0.028 U	0.027 U
Ethyl ether	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
Ethylbenzene	1	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.014	0.035	0.0027 U
Hexachlorobutadiene	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
Isopropylbenzene	2.3	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.017	0.0088	0.0027 U
Methyl tert butyl ether	0.93	0.22 U	0.0019 J	0.0054 U	0.0054 U	0.0053 U	0.0056 U	0.0056 U	0.0055 U
Methylene chloride	0.05	**0.14** J	0.027 U	0.027 U	0.027 U	0.026 U	0.028 U	0.0029 J	0.027 U
Naphthalene	12	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.063	0.061	0.014 U
n-Butylbenzene	12	1.2	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.035	0.023	0.0027 U
n-Propylbenzene	3.9	0.12	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.073	0.053	0.0027 U
o-Chlorotoluene	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
o-Xylene	1.6	0.22 U	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0056 U	0.0056 U	0.0055 U
p/m-Xylene	1.6	0.22 U	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0056 U	0.0018 J	0.0055 U
p-Chlorotoluene	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
p-Isopropyltoluene	10	0.24	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
sec-Butylbenzene	11	0.28	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.017	0.0085	0.0027 U
Styrene	NS	0.22 U	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0056 U	0.0056 U	0.0055 U
tert-Butylbenzene	5.9	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
Tetrachloroethene	1.3	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
Toluene	0.7	0.17 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0042 U	0.0042 U	0.0041 U
trans-1,2-Dichloroethene	0.19	0.17 U	0.0041 U	0.004 U	0.0041 U	0.004 U	0.0042 U	0.0042 U	0.0041 U
trans-1,3-Dichloropropene	NS	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
trans-1,4-Dichloro-2-butene	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
Trichloroethene	0.47	0.11 U	0.0027 U	0.0027 U	0.0027 U	0.0026 U	0.0028 U	0.0028 U	0.0027 U
Trichlorofluoromethane	NS	0.56 U	0.014 U	0.013 U	0.014 U	0.013 U	0.014 U	0.014 U	0.014 U
Vinyl acetate	NS	1.1 U	0.027 U	0.027 U	0.027 U	0.026 U	0.028 U	0.028 U	0.027 U
Vinyl chloride	0.02	0.22 U	0.0055 U	0.0054 U	0.0054 U	0.0053 U	0.0056 U	0.0056 U	0.0055 U

Table 1
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Volatile Organic Compounds

Client ID	NYSDEC	SS-47 SW (3-4)	SS-48 B (6-7)	SS-49 B (6-7)	SS-50 WW (3-4)	SS-51 NW (3-4)
Lab Sample ID	Part 375	L1209967-04	L1209967-05	L1209967-06	L1209967-07	L1209967-08
Date Sampled	Groundwater	6/4/2012	6/5/2012	6/4/2012	6/4/2012	6/5/2012
Dilution	SCO	1	1	1	1	1
mg/kg	mg/kg					
1,1,1,2-Tetrachloroethane	NS	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
1,1,1-Trichloroethane	0.68	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
1,1,2,2-Tetrachloroethane	0.6	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
1,1,2-Trichloroethane	NS	0.004 U	0.0042 U	0.0044 U	0.0044 U	0.0041 U
1,1-Dichloroethane	0.27	0.004 U	0.0042 U	0.0044 U	0.0044 U	0.0041 U
1,1-Dichloroethene	0.33	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
1,1-Dichloropropene	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
1,2,3-Trichlorobenzene	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
1,2,3-Trichloropropane	0.34	0.027 U	0.028 U	0.029 U	0.029 U	0.027 U
1,2,4,5-Tetramethylbenzene	NS	0.011 U	0.011 U	0.012 U	0.012 U	0.064
1,2,4-Trichlorobenzene	3.4	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
1,2,4-Trimethylbenzene	3.6	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
1,2-Dibromo-3-chloropropane	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
1,2-Dibromoethane	NS	0.011 U	0.011 U	0.012 U	0.012 U	0.011 U
1,2-Dichlorobenzene	1.1	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
1,2-Dichloroethane	0.02	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
1,2-Dichloropropane	NS	0.0094 U	0.0098 U	0.01 U	0.01 U	0.0096 U
1,3,5-Trimethylbenzene	8.4	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
1,3-Dichlorobenzene	2.4	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
1,3-Dichloropropane	0.3	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
1,4-Dichlorobenzene	1.8	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
1,4-Diethylbenzene	NS	0.011 U	0.011 U	0.012 U	0.012 U	0.01 J
2,2-Dichloropropane	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
2-Butanone	0.3	0.027 U	0.028 U	0.029 U	0.029 U	0.013 J
2-Hexanone	NS	0.027 U	0.028 U	0.029 U	0.029 U	0.027 U
4-Ethyltoluene	NS	0.011 U	0.011 U	0.012 U	0.012 U	0.00058 J
4-Methyl-2-pentanone	1	0.027 U	0.028 U	0.029 U	0.029 U	0.027 U
Acetone	0.05	0.027 U	0.028 U	0.029 U	0.029 U	**0.092**
Acrylonitrile	NS	0.027 U	0.028 U	0.029 U	0.029 U	0.027 U
Benzene	0.06	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
Bromobenzene	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
Bromochloromethane	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
Bromodichloromethane	NS	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
Bromoform	NS	0.011 U	0.011 U	0.012 U	0.012 U	0.011 U
Bromomethane	NS	0.0054 U	0.0056 U	0.0059 U	0.0058 U	0.0055 U
Carbon disulfide	2.7	0.027 U	0.028 U	0.029 U	0.029 U	0.0018 J
Carbon tetrachloride	0.76	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
Chlorobenzene	1.1	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
Chloroethane	1.9	0.0054 U	0.0056 U	0.0059 U	0.0058 U	0.0055 U
Chloroform	0.37	0.004 U	0.0042 U	0.0044 U	0.0044 U	0.0041 U
Chloromethane	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
cis-1,2-Dichloroethene	0.25	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
cis-1,3-Dichloropropene	NS	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
Dibromochloromethane	NS	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
Dibromomethane	NS	0.027 U	0.028 U	0.029 U	0.029 U	0.027 U
Dichlorodifluoromethane	NS	0.027 U	0.028 U	0.029 U	0.029 U	0.027 U
Ethyl ether	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
Ethylbenzene	1	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0067
Hexachlorobutadiene	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
Isopropylbenzene	2.3	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0021 J
Methyl tert butyl ether	0.93	0.0054 U	0.0056 U	0.0059 U	0.0058 U	0.0055 U
Methylene chloride	0.05	0.027 U	0.028 U	0.029 U	0.029 U	0.0022 J
Naphthalene	12	0.013 U	0.014 U	0.015 U	0.014 U	0.014
n-Butylbenzene	12	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0071
n-Propylbenzene	3.9	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.014
o-Chlorotoluene	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
o-Xylene	1.6	0.0054 U	0.0056 U	0.0059 U	0.0058 U	0.0055 U
p/m-Xylene	1.6	0.0054 U	0.0056 U	0.0059 U	0.0058 U	0.0055 U
p-Chlorotoluene	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
p-Isopropyltoluene	10	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
sec-Butylbenzene	11	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0039
Styrene	NS	0.0054 U	0.0056 U	0.0059 U	0.0058 U	0.0055 U
tert-Butylbenzene	5.9	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
Tetrachloroethene	1.3	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
Toluene	0.7	0.004 U	0.0042 U	0.0044 U	0.0044 U	0.0041 U
trans-1,2-Dichloroethene	0.19	0.004 U	0.0042 U	0.0044 U	0.0044 U	0.0041 U
trans-1,3-Dichloropropene	NS	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
trans-1,4-Dichloro-2-butene	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
Trichloroethene	0.47	0.0027 U	0.0028 U	0.0029 U	0.0029 U	0.0027 U
Trichlorofluoromethane	NS	0.013 U	0.014 U	0.015 U	0.014 U	0.014 U
Vinyl acetate	NS	0.027 U	0.028 U	0.029 U	0.029 U	0.027 U
Vinyl chloride	0.02	0.0054 U	0.0056 U	0.0059 U	0.0058 U	0.0055 U

Table 2
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Semivolatile Organic Compounds

Client ID	NYSDEC	SS-1-SW (5'-6')	SS-2-SW (4'-5')	SS-3-WW (6'-7')	SS-4-WW (6'-7')	SS-5-NW (5'-6')	SS-6-NW (6'-7')
Lab Sample ID	Part 375	L1209484-01	L1209484-02	L1209484-03	L1209484-04	L1209484-05	L1209484-06
Date Sampled	Groundwater	5/25/2012	5/25/2012	5/25/2012	5/25/2012	5/25/2012	5/25/2012
Dilution	SCO	1	1	1	1	1	1
mg/kg	mg/kg						
1,2,4,5-Tetrachlorobenzene	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
1,2,4-Trichlorobenzene	3.4	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
1,2-Dichlorobenzene	1.1	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
1,3-Dichlorobenzene	2.4	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
1,4-Dichlorobenzene	1.8	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
2,4,5-Trichlorophenol	0.1	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
2,4,6-Trichlorophenol	NS	0.1 U	0.1 U	0.11 U	0.11 U	0.11 U	0.1 U
2,4-Dichlorophenol	0.4	0.15 U	0.15 U	0.17 U	0.16 U	0.16 U	0.16 U
2,4-Dimethylphenol	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
2,4-Dinitrophenol	0.2	0.82 U	0.82 U	0.89 U	0.87 U	0.85 U	0.84 U
2,4-Dinitrotoluene	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
2,6-Dinitrotoluene	0.17	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
2-Chloronaphthalene	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
2-Chlorophenol	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
2-Methylnaphthalene	36.4	0.2 U	0.2 U	0.22 U	0.22 U	0.21 U	0.21 U
2-Methylphenol	0.33	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
2-Nitroaniline	0.4	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
2-Nitrophenol	0.3	0.37 U	0.37 U	0.4 U	0.39 U	0.38 U	0.38 U
3,3'-Dichlorobenzidine	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
3-Methylphenol/4-Methylphenol	0.33	0.24 U	0.24 U	0.27 U	0.26 U	0.26 U	0.25 U
3-Nitroaniline	0.5	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
4,6-Dinitro-o-cresol	NS	0.44 U	0.44 U	0.48 U	0.47 U	0.46 U	0.45 U
4-Bromophenyl phenyl ether	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
4-Chloroaniline	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
4-Chlorophenyl phenyl ether	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
4-Nitroaniline	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
4-Nitrophenol	0.1	0.24 U	0.24 U	0.26 U	0.25 U	0.25 U	0.24 U
Acenaphthene	98	0.14 U	0.14 U	0.15 U	0.14 U	0.14 U	0.14 U
Acenaphthylene	107	0.14 U	0.14 U	0.15 U	0.14 U	0.14 U	0.14 U
Acetophenone	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Anthracene	1,000	0.1 U	0.1 U	0.08 J	0.025 J	0.11 U	0.1 U
Benzo(a)anthracene	1	0.036 J	0.1 U	0.23	0.14	0.11 U	0.1 U
Benzo(a)pyrene	22	0.054 J	0.14 U	0.21	0.14	0.14 U	0.14 U
Benzo(b)fluoranthene	1.7	0.061 J	0.1 U	0.2	0.19	0.11 U	0.1 U
Benzo(ghi)perylene	1,000	0.047 J	0.14 U	0.13 J	0.09 J	0.14 U	0.14 U
Benzo(k)fluoranthene	1.7	0.044 J	0.1 U	0.16	0.051 J	0.11 U	0.1 U
Benzoic Acid	2.7	0.55 U	0.55 U	0.6 U	0.59 U	0.58 U	0.56 U
Benzyl Alcohol	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Biphenyl	NS	0.39 U	0.39 U	0.42 U	0.41 U	0.4 U	0.4 U
Bis(2-chloroethoxy)methane	NS	0.18 U	0.18 U	0.2 U	0.2 U	0.19 U	0.19 U
Bis(2-chloroethyl)ether	NS	0.15 U	0.15 U	0.17 U	0.16 U	0.16 U	0.16 U
Bis(2-chloroisopropyl)ether	NS	0.2 U	0.2 U	0.22 U	0.22 U	0.21 U	0.21 U
Bis(2-Ethylhexyl)phthalate	435	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Butyl benzyl phthalate	0.22	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Carbazole	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Chrysene	1	0.037 J	0.1 U	0.24	0.14	0.11 U	0.1 U
Dibenzo(a,h)anthracene	1,000	0.1 U	0.1 U	0.049 J	0.11 U	0.11 U	0.1 U
Dibenzofuran	210	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Diethyl phthalate	7.1	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Dimethyl phthalate	27	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Di-n-butylphthalate	8.1	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Di-n-octylphthalate	120	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Fluoranthene	1,000	0.1 U	0.1 U	0.52	0.23	0.11 U	0.1 U
Fluorene	386	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Hexachlorobenzene	1.4	0.1 U	0.1 U	0.11 U	0.11 U	0.11 U	0.1 U
Hexachlorobutadiene	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Hexachlorocyclopentadiene	NS	0.49 U	0.49 U	0.53 U	0.52 U	0.51 U	0.5 U
Hexachloroethane	NS	0.14 U	0.14 U	0.15 U	0.14 U	0.14 U	0.14 U
Indeno(1,2,3-cd)Pyrene	8.2	0.14 U	0.14 U	0.11 J	0.096 J	0.14 U	0.14 U
Isophorone	4.4	0.15 U	0.15 U	0.17 U	0.16 U	0.16 U	0.16 U
Naphthalene	12	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Nitrobenzene	0.17	0.15 U	0.15 U	0.17 U	0.16 U	0.16 U	0.16 U
NitrosoDiPhenylAmine(NDPA)/DPA	NS	0.14 U	0.14 U	0.15 U	0.14 U	0.14 U	0.14 U
n-Nitrosodi-n-propylamine	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
P-Chloro-M-Cresol	NS	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Pentachlorophenol	0.8	0.14 U	0.14 U	0.15 U	0.14 U	0.14 U	0.14 U
Phenanthrene	1,000	0.1 U	0.1 U	0.4	0.12	0.11 U	0.1 U
Phenol	0.33	0.17 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U
Pyrene	1,000	0.1 U	0.1 U	0.49	0.22	0.11 U	0.1 U

Table 2
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Semivolatile Organic Compounds

Client ID	NYSDEC	SS-7-B (12')	SS-8-B (12')	SS-9-B (12')	SS-10-B (12')	SS-11-B (12')	SS-12-B (13')
Lab Sample ID	Part 375	L1209484-07	L1209484-08	L1209484-09	L1209484-10	L1209484-11	L1209484-12
Date Sampled	Groundwater	5/25/2012	5/25/2012	5/25/2012	5/25/2012	5/25/2012	5/25/2012
Dilution	SCO	1	1	1	1	1	1
mg/kg	mg/kg						
1,2,4,5-Tetrachlorobenzene	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2,4-Trichlorobenzene	3.4	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichlorobenzene	1.1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,3-Dichlorobenzene	2.4	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,4-Dichlorobenzene	1.8	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
2,4,5-Trichlorophenol	0.1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
2,4,6-Trichlorophenol	NS	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,4-Dichlorophenol	0.4	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2,4-Dimethylphenol	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
2,4-Dinitrophenol	0.2	1.1 U	1.1 U	1 U	1.1 U	1 U	1.1 U
2,4-Dinitrotoluene	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
2,6-Dinitrotoluene	0.17	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
2-Chloronaphthalene	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
2-Chlorophenol	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
2-Methylnaphthalene	36.4	0.27 U	0.27 U	0.26 U	0.27 U	0.26 U	0.26 U
2-Methylphenol	0.33	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
2-Nitroaniline	0.4	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
2-Nitrophenol	0.3	0.48 U	0.48 U	0.47 U	0.48 U	0.48 U	0.48 U
3,3'-Dichlorobenzidine	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
3-Methylphenol/4-Methylphenol	0.33	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
3-Nitroaniline	0.5	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
4,6-Dinitro-o-cresol	NS	0.58 U	0.58 U	0.57 U	0.58 U	0.57 U	0.58 U
4-Bromophenyl phenyl ether	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
4-Chloroaniline	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
4-Chlorophenyl phenyl ether	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
4-Nitroaniline	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
4-Nitrophenol	0.1	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
Acenaphthene	98	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Acenaphthylene	107	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Acetophenone	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Anthracene	1,000	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Benzo(a)anthracene	1	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Benzo(a)pyrene	22	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Benzo(b)fluoranthene	1.7	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Benzo(ghi)perylene	1,000	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Benzo(k)fluoranthene	1.7	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Benzoic Acid	2.7	0.73 U	0.73 U	0.71 U	0.72 U	0.72 U	0.72 U
Benzyl Alcohol	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Biphenyl	NS	0.51 U	0.51 U	0.5 U	0.51 U	0.5 U	0.5 U
Bis(2-chloroethoxy)methane	NS	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Bis(2-chloroethyl)ether	NS	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bis(2-chloroisopropyl)ether	NS	0.27 U	0.27 U	0.26 U	0.27 U	0.26 U	0.26 U
Bis(2-Ethylhexyl)phthalate	435	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Butyl benzyl phthalate	0.22	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Carbazole	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chrysene	1	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Dibenzo(a,h)anthracene	1,000	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Dibenzofuran	210	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Diethyl phthalate	7.1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Dimethyl phthalate	27	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Di-n-butylphthalate	8.1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Di-n-octylphthalate	120	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Fluoranthene	1,000	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Fluorene	386	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Hexachlorobenzene	1.4	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Hexachlorobutadiene	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Hexachlorocyclopentadiene	NS	0.64 U	0.64 U	0.63 U	0.64 U	0.63 U	0.63 U
Hexachloroethane	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Indeno(1,2,3-cd)Pyrene	8.2	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Isophorone	4.4	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Naphthalene	12	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Nitrobenzene	0.17	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
NitrosoDiPhenylAmine(NDPA)/DPA	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Nitrosodi-n-propylamine	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
P-Chloro-M-Cresol	NS	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Pentachlorophenol	0.8	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Phenanthrene	1,000	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Phenol	0.33	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Pyrene	1,000	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

Table 2
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Semivolatile Organic Compounds

Client ID	NYSDEC	SS-13-B (12')	SS-14-B (13')	SS-16SW (3-4)	SS-17WW (3-4)	SS-15SW (3-4)	SS-18WW (3-4)
Lab Sample ID	Part 375	L1209484-13	L1209484-14	L1209806-02	L1209806-03	L1209806-01	L1209806-04
Date Sampled	Groundwater	5/25/2012	5/25/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012
Dilution	SCO	1	1	1	2	2 Duplicate	1
mg/kg	mg/kg						
1,2,4,5-Tetrachlorobenzene	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
1,2,4-Trichlorobenzene	3.4	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
1,2-Dichlorobenzene	1.1	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
1,3-Dichlorobenzene	2.4	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
1,4-Dichlorobenzene	1.8	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
2,4,5-Trichlorophenol	0.1	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
2,4,6-Trichlorophenol	NS	0.13 U	0.13 U	0.11 U	0.22 U	0.21 U	0.11 U
2,4-Dichlorophenol	0.4	0.19 U	0.2 U	0.17 U	0.33 U	0.32 U	0.17 U
2,4-Dimethylphenol	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
2,4-Dinitrophenol	0.2	1 U	1 U	0.91 U	1.8 U	1.7 U	0.89 U
2,4-Dinitrotoluene	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
2,6-Dinitrotoluene	0.17	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
2-Chloronaphthalene	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
2-Chlorophenol	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
2-Methylnaphthalene	36.4	0.26 U	0.26 U	0.23 U	0.44 U	0.42 U	0.22 U
2-Methylphenol	0.33	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
2-Nitroaniline	0.4	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
2-Nitrophenol	0.3	0.47 U	0.47 U	0.41 U	0.79 U	0.76 U	0.4 U
3,3'-Dichlorobenzidine	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
3-Methylphenol/4-Methylphenol	0.33	0.31 U	0.31 U	0.27 U	0.53 U	0.51 U	0.27 U
3-Nitroaniline	0.5	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
4,6-Dinitro-o-cresol	NS	0.56 U	0.56 U	0.49 U	0.95 U	0.92 U	0.48 U
4-Bromophenyl phenyl ether	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
4-Chloroaniline	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
4-Chlorophenyl phenyl ether	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
4-Nitroaniline	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
4-Nitrophenol	0.1	0.3 U	0.3 U	0.26 U	0.51 U	0.49 U	0.26 U
Acenaphthene	98	0.17 U	0.17 U	0.15 U	0.26 J	0.14 J	0.15 U
Acenaphthylene	107	0.17 U	0.17 U	0.15 U	0.19 J	0.28 U	0.15 U
Acetophenone	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
Anthracene	1,000	0.13 U	0.13 U	0.11 U	0.75	0.8	0.11 U
Benzo(a)anthracene	1	0.13 U	0.13 U	0.11 U	**2.6**	**3.1**	0.11 U
Benzo(a)pyrene	22	0.17 U	0.17 U	0.15 U	2.6	2.6	0.15 U
Benzo(b)fluoranthene	1.7	0.13 U	0.13 U	0.11 U	**3.2**	**3.3**	0.11 U
Benzo(ghi)perylene	1,000	0.17 U	0.17 U	0.15 U	1.6	1.5	0.15 U
Benzo(k)fluoranthene	1.7	0.13 U	0.13 U	0.11 U	1.2	1.2	0.11 U
Benzoic Acid	2.7	0.7 U	0.7 U	0.61 U	1.2 U	1.1 U	0.6 U
Benzyl Alcohol	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
Biphenyl	NS	0.49 U	0.49 U	0.43 U	0.84 U	0.8 U	0.42 U
Bis(2-chloroethoxy)methane	NS	0.23 U	0.23 U	0.2 U	0.4 U	0.38 U	0.2 U
Bis(2-chloroethyl)ether	NS	0.19 U	0.2 U	0.17 U	0.33 U	0.32 U	0.17 U
Bis(2-chloroisopropyl)ether	NS	0.26 U	0.26 U	0.23 U	0.44 U	0.42 U	0.22 U
Bis(2-Ethylhexyl)phthalate	435	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
Butyl benzyl phthalate	0.22	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
Carbazole	NS	0.22 U	0.22 U	0.19 U	0.31 J	0.13 J	0.19 U
Chrysene	1	0.13 U	0.13 U	0.11 U	**2.8**	**3.1**	0.11 U
Dibenzo(a,h)anthracene	1,000	0.13 U	0.13 U	0.11 U	0.39	0.43	0.11 U
Dibenzofuran	210	0.22 U	0.22 U	0.19 U	0.19 J	0.089 J	0.19 U
Diethyl phthalate	7.1	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
Dimethyl phthalate	27	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
Di-n-butylphthalate	8.1	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
Di-n-octylphthalate	120	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
Fluoranthene	1,000	0.13 U	0.13 U	0.041 J	4.9	5.4	0.11 U
Fluorene	386	0.22 U	0.22 U	0.19 U	0.37 U	0.23 J	0.19 U
Hexachlorobenzene	1.4	0.13 U	0.13 U	0.11 U	0.22 U	0.21 U	0.11 U
Hexachlorobutadiene	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
Hexachlorocyclopentadiene	NS	0.62 U	0.62 U	0.54 U	1 U	1 U	0.53 U
Hexachloroethane	NS	0.17 U	0.17 U	0.15 U	0.29 U	0.28 U	0.15 U
Indeno(1,2,3-cd)Pyrene	8.2	0.17 U	0.17 U	0.15 U	1.8	1.8	0.15 U
Isophorone	4.4	0.19 U	0.2 U	0.17 U	0.33 U	0.32 U	0.17 U
Naphthalene	12	0.22 U	0.22 U	0.19 U	0.12 J	0.15 J	0.19 U
Nitrobenzene	0.17	0.19 U	0.2 U	0.17 U	0.33 U	0.32 U	0.17 U
NitrosoDiPhenylAmine(NDPA)/DPA	NS	0.17 U	0.17 U	0.15 U	0.29 U	0.28 U	0.15 U
n-Nitrosodi-n-propylamine	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
P-Chloro-M-Cresol	NS	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
Pentachlorophenol	0.8	0.17 U	0.17 U	0.15 U	0.29 U	0.28 U	0.15 U
Phenanthrene	1,000	0.13 U	0.13 U	0.11 U	3.3	3.6	0.11 U
Phenol	0.33	0.22 U	0.22 U	0.19 U	0.37 U	0.35 U	0.19 U
Pyrene	1,000	0.13 U	0.13 U	0.036 J	4.6	5.2	0.11 U

Table 2
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Semivolatile Organic Compounds

Client ID	NYSDEC	SS-19WW (3-4)	SS-20NW (3-4)	SS-21NW (3-4)	SS-22EW (3-4)	SS-23EW (3-4)	SS-39EW (3-4)	SS-24EW (3-4)	SS-40EW (3-4)
Lab Sample ID	Part 375	L1209806-05	L1209806-06	L1209806-07	L1209806-08	L1209806-09	L1209806-25	L1209806-10	L1209806-26
Date Sampled	Groundwater	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012
Dilution	SCO	1	2	1	1	1	1	1	1
							Duplicate		Duplicate
mg/kg	mg/kg								
1,2,4,5-Tetrachlorobenzene	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,2,4-Trichlorobenzene	3.4	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,2-Dichlorobenzene	1.1	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	2.4	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,4-Dichlorobenzene	1.8	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,4,5-Trichlorophenol	0.1	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,4,6-Trichlorophenol	NS	0.11 U	0.22 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.1 U
2,4-Dichlorophenol	0.4	0.17 U	0.33 U	0.16 U	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U
2,4-Dimethylphenol	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,4-Dinitrophenol	0.2	0.9 U	1.8 U	0.87 U	0.86 U	0.89 U	0.87 U	0.86 U	0.85 U
2,4-Dinitrotoluene	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,6-Dinitrotoluene	0.17	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Chloronaphthalene	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Chlorophenol	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Methylnaphthalene	36.4	0.22 U	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.21 U
2-Methylphenol	0.33	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Nitroaniline	0.4	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Nitrophenol	0.3	0.4 U	0.8 U	0.39 U	0.39 U	0.4 U	0.39 U	0.39 U	0.38 U
3,3'-Dichlorobenzidine	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
3-Methylphenol/4-Methylphenol	0.33	0.27 U	0.53 U	0.26 U	0.26 U	0.27 U	0.26 U	0.26 U	0.25 U
3-Nitroaniline	0.5	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4,6-Dinitro-o-cresol	NS	0.49 U	0.96 U	0.47 U	0.47 U	0.48 U	0.47 U	0.47 U	0.46 U
4-Bromophenyl phenyl ether	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Chloroaniline	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Chlorophenyl phenyl ether	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Nitroaniline	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Nitrophenol	0.1	0.26 U	0.52 U	0.25 U	0.25 U	0.26 U	0.25 U	0.25 U	0.25 U
Acenaphthene	98	0.15 U	0.23 J	0.14 U	0.14 U	0.15 U	0.14 U	0.075 J	0.14 U
Acenaphthylene	107	0.15 U	0.18 J	0.14 U	0.14 U	0.15 U	0.14 U	0.14 U	0.14 U
Acetophenone	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Anthracene	1,000	0.11 U	0.64	0.11 U	0.027 J	0.11 U	0.11 U	0.23	0.1 U
Benzo(a)anthracene	1	0.11 U	**1.8**	0.11 U	0.083 J	0.11 U	0.11 U	0.58	0.099 J
Benzo(a)pyrene	22	0.15 U	1.8	0.14 U	0.082 J	0.15 U	0.14 U	0.5	0.11 J
Benzo(b)fluoranthene	1.7	0.11 U	**2.2**	0.11 U	0.088 J	0.11 U	0.11 U	0.66	0.13
Benzo(ghi)perylene	1,000	0.15 U	1.1	0.14 U	0.049 J	0.15 U	0.14 U	0.29	0.077 J
Benzo(k)fluoranthene	1.7	0.11 U	0.8	0.11 U	0.045 J	0.11 U	0.11 U	0.21	0.061 J
Benzoic Acid	2.7	0.6 U	1.2 U	0.59 U	0.58 U	0.6 U	0.59 U	0.58 U	0.57 U
Benzyl Alcohol	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Biphenyl	NS	0.43 U	0.84 U	0.41 U	0.41 U	0.42 U	0.42 U	0.41 U	0.4 U
Bis(2-chloroethoxy)methane	NS	0.2 U	0.4 U	0.2 U	0.19 U	0.2 U	0.2 U	0.19 U	0.19 U
Bis(2-chloroethyl)ether	NS	0.17 U	0.33 U	0.16 U	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U
Bis(2-chloroisopropyl)ether	NS	0.22 U	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.21 U
Bis(2-Ethylhexyl)phthalate	435	0.19 U	0.28 J	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Butyl benzyl phthalate	0.22	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbazole	NS	0.19 U	0.23 J	0.18 U	0.18 U	0.18 U	0.18 U	0.11 J	0.18 U
Chrysene	1	0.11 U	**1.9**	0.11 U	0.087 J	0.11 U	0.11 U	0.6	0.11
Dibenzo(a,h)anthracene	1,000	0.11 U	0.25	0.11 U	0.11 U	0.11 U	0.11 U	0.076 J	0.1 U
Dibenzofuran	210	0.19 U	0.14 J	0.18 U	0.18 U	0.18 U	0.18 U	0.04 J	0.18 U
Diethyl phthalate	7.1	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Dimethyl phthalate	27	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Di-n-butylphthalate	8.1	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Di-n-octylphthalate	120	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Fluoranthene	1,000	0.11 U	3.7	0.11 U	0.15	0.11 U	0.11 U	1.2	0.14
Fluorene	386	0.19 U	0.22 J	0.18 U	0.18 U	0.18 U	0.18 U	0.092 J	0.18 U
Hexachlorobenzene	1.4	0.11 U	0.22 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.1 U
Hexachlorobutadiene	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Hexachlorocyclopentadiene	NS	0.54 U	1 U	0.52 U	0.52 U	0.53 U	0.52 U	0.52 U	0.51 U
Hexachloroethane	NS	0.15 U	0.3 U	0.14 U	0.14 U	0.15 U	0.14 U	0.14 U	0.14 U
Indeno(1,2,3-cd)Pyrene	8.2	0.15 U	1.3	0.14 U	0.053 J	0.15 U	0.14 U	0.32	0.082 J
Isophorone	4.4	0.17 U	0.33 U	0.16 U	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U
Naphthalene	12	0.19 U	0.12 J	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Nitrobenzene	0.17	0.17 U	0.33 U	0.16 U	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U
NitrosoDiPhenylAmine(NDPA)/DPA	NS	0.15 U	0.3 U	0.14 U	0.14 U	0.15 U	0.14 U	0.14 U	0.14 U
n-Nitrosodi-n-propylamine	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
P-Chloro-M-Cresol	NS	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Pentachlorophenol	0.8	0.15 U	0.3 U	0.14 U	0.14 U	0.15 U	0.14 U	0.14 U	0.14 U
Phenanthrene	1,000	0.11 U	2.5	0.11 U	0.095 J	0.11 U	0.11 U	1.1	0.064 J
Phenol	0.33	0.19 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Pyrene	1,000	0.11 U	3.2	0.11 U	0.13	0.11 U	0.11 U	1.1	0.13

Table 2
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Semivolatile Organic Compounds

Client ID	NYSDEC	SS-25B (6-7)	SS-26B (6-7)	SS-27B (6-7)	SS-28B (6-7)	SS-29B (6-7)	SS-30B (6-7)
Lab Sample ID	Part 375	L1209806-11	L1209806-12	L1209806-13	L1209806-14	L1209806-15	L1209806-16
Date Sampled	Groundwater	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012
Dilution	SCO	1	1	1	1	1	1
mg/kg	mg/kg						
1,2,4,5-Tetrachlorobenzene	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
1,2,4-Trichlorobenzene	3.4	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
1,2-Dichlorobenzene	1.1	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	2.4	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
1,4-Dichlorobenzene	1.8	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
2,4,5-Trichlorophenol	0.1	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
2,4,6-Trichlorophenol	NS	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U	0.11 U
2,4-Dichlorophenol	0.4	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
2,4-Dimethylphenol	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
2,4-Dinitrophenol	0.2	0.84 U	0.84 U	0.84 U	0.85 U	0.85 U	0.85 U
2,4-Dinitrotoluene	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
2,6-Dinitrotoluene	0.17	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
2-Chloronaphthalene	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
2-Chlorophenol	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
2-Methylnaphthalene	36.4	0.21 U	0.21 U	0.13 J	0.1 J	0.091 J	0.09 J
2-Methylphenol	0.33	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
2-Nitroaniline	0.4	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
2-Nitrophenol	0.3	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
3,3'-Dichlorobenzidine	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
3-Methylphenol/4-Methylphenol	0.33	0.25 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U
3-Nitroaniline	0.5	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
4,6-Dinitro-o-cresol	NS	0.45 U	0.46 U	0.45 U	0.46 U	0.46 U	0.46 U
4-Bromophenyl phenyl ether	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
4-Chloroaniline	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
4-Chlorophenyl phenyl ether	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
4-Nitroaniline	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
4-Nitrophenol	0.1	0.24 U	0.24 U	0.24 U	0.25 U	0.25 U	0.25 U
Acenaphthene	98	0.14 U	0.14 U	0.14	0.075 J	0.068 J	0.06 J
Acenaphthylene	107	0.14 U	0.14 U	0.17	0.057 J	0.065 J	0.075 J
Acetophenone	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
Anthracene	1,000	0.061 J	0.084 J	0.39	0.2	0.2	0.2
Benzo(a)anthracene	1	0.16	0.3	**1.6**	0.58	0.65	0.8
Benzo(a)pyrene	22	0.21	0.36	2	0.72	0.78	0.93
Benzo(b)fluoranthene	1.7	0.28	0.45	**2.2**	0.85	1	1.1
Benzo(ghi)perylene	1,000	0.17	0.26	1.2	0.52	0.56	0.66
Benzo(k)fluoranthene	1.7	0.08 J	0.16	0.72	0.33	0.33	0.41
Benzoic Acid	2.7	0.56 U	0.57 U	0.56 U	0.58 U	0.57 U	0.58 U
Benzyl Alcohol	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
Biphenyl	NS	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Bis(2-chloroethoxy)methane	NS	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethyl)ether	NS	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Bis(2-chloroisopropyl)ether	NS	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Bis(2-Ethylhexyl)phthalate	435	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
Butyl benzyl phthalate	0.22	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
Carbazole	NS	0.17 U	0.18 U	0.14 J	0.076 J	0.078 J	0.074 J
Chrysene	1	0.18	0.32	**1.6**	0.62	0.73	0.85
Dibenzo(a,h)anthracene	1,000	0.042 J	0.057 J	0.28	0.12	0.14	0.17
Dibenzofuran	210	0.17 U	0.18 U	0.11 J	0.067 J	0.061 J	0.058 J
Diethyl phthalate	7.1	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
Dimethyl phthalate	27	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
Di-n-butylphthalate	8.1	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
Di-n-octylphthalate	120	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
Fluoranthene	1,000	0.28	0.49	2.1	0.95	1.2	1.2
Fluorene	386	0.17 U	0.18 U	0.13 J	0.084 J	0.075 J	0.066 J
Hexachlorobenzene	1.4	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U	0.11 U
Hexachlorobutadiene	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
Hexachlorocyclopentadiene	NS	0.5 U	0.5 U	0.5 U	0.51 U	0.51 U	0.51 U
Hexachloroethane	NS	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Indeno(1,2,3-cd)Pyrene	8.2	0.16	0.27	1.4	0.56	0.61	0.75
Isophorone	4.4	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Naphthalene	12	0.077 J	0.094 J	0.3	0.16 J	0.14 J	0.15 J
Nitrobenzene	0.17	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
NitrosoDiPhenylAmine(NDPA)/DPA	NS	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
n-Nitrosodi-n-propylamine	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
P-Chloro-M-Cresol	NS	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
Pentachlorophenol	0.8	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Phenanthrene	1,000	0.22	0.34	1.5	0.77	0.84	0.84
Phenol	0.33	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
Pyrene	1,000	0.29	0.48	2	0.92	1.2	1.2

Table 2
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Semivolatile Organic Compounds

Client ID	NYSDEC	SS-31B (6-7)	SS-32B (6-7)	SS-33B (6-7)	SS-34B (6-7)	SS-35B (6-7)
Lab Sample ID	Part 375	L1209806-17	L1209806-18	L1209806-19	L1209806-20	L1209806-21
Date Sampled	Groundwater	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012
Dilution	SCO	1	1	1	1	1
mg/kg	mg/kg					
1,2,4,5-Tetrachlorobenzene	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,2,4-Trichlorobenzene	3.4	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,2-Dichlorobenzene	1.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	2.4	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,4-Dichlorobenzene	1.8	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,4,5-Trichlorophenol	0.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,4,6-Trichlorophenol	NS	0.1 U	0.1 U	0.11 U	0.11 U	0.11 U
2,4-Dichlorophenol	0.4	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
2,4-Dimethylphenol	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,4-Dinitrophenol	0.2	0.84 U	0.84 U	0.85 U	0.86 U	0.86 U
2,4-Dinitrotoluene	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,6-Dinitrotoluene	0.17	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Chloronaphthalene	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Chlorophenol	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Methylnaphthalene	36.4	0.086 J	0.11 J	0.21 U	0.21 U	0.071 J
2-Methylphenol	0.33	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Nitroaniline	0.4	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Nitrophenol	0.3	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
3,3'-Dichlorobenzidine	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
3-Methylphenol/4-Methylphenol	0.33	0.25 U	0.25 U	0.26 U	0.26 U	0.26 U
3-Nitroaniline	0.5	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4,6-Dinitro-o-cresol	NS	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
4-Bromophenyl phenyl ether	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Chloroaniline	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Chlorophenyl phenyl ether	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Nitroaniline	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Nitrophenol	0.1	0.24 U	0.25 U	0.25 U	0.25 U	0.25 U
Acenaphthene	98	0.14 U	0.046 J	0.14 U	0.14 U	0.14 U
Acenaphthylene	107	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Acetophenone	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Anthracene	1,000	0.096 J	0.2	0.035 J	0.11 U	0.12
Benzo(a)anthracene	1	0.3	0.57	0.095 J	0.069 J	0.42
Benzo(a)pyrene	22	0.36	0.67	0.11 J	0.08 J	0.56
Benzo(b)fluoranthene	1.7	0.45	0.82	0.13	0.099 J	0.64
Benzo(ghi)perylene	1,000	0.27	0.43	0.092 J	0.061 J	0.4
Benzo(k)fluoranthene	1.7	0.15	0.27	0.05 J	0.037 J	0.22
Benzoic Acid	2.7	0.57 U	0.57 U	0.58 U	0.58 U	0.58 U
Benzyl Alcohol	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Biphenyl	NS	0.4 U	0.4 U	0.4 U	0.41 U	0.41 U
Bis(2-chloroethoxy)methane	NS	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethyl)ether	NS	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Bis(2-chloroisopropyl)ether	NS	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Bis(2-Ethylhexyl)phthalate	435	0.044 J	0.14 J	0.18 U	0.18 U	0.18 U
Butyl benzyl phthalate	0.22	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbazole	NS	0.18 U	0.061 J	0.18 U	0.18 U	0.046 J
Chrysene	1	0.33	0.59	0.1 J	0.079 J	0.47
Dibenzo(a,h)anthracene	1,000	0.071 J	0.094 J	0.11 U	0.11 U	0.093 J
Dibenzofuran	210	0.18 U	0.041 J	0.18 U	0.18 U	0.042 J
Diethyl phthalate	7.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Dimethyl phthalate	27	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Di-n-butylphthalate	8.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Di-n-octylphthalate	120	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Fluoranthene	1,000	0.5	1.1	0.16	0.1 J	0.68
Fluorene	386	0.18 U	0.059 J	0.18 U	0.18 U	0.047 J
Hexachlorobenzene	1.4	0.1 U	0.1 U	0.11 U	0.11 U	0.11 U
Hexachlorobutadiene	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Hexachlorocyclopentadiene	NS	0.5 U	0.5 U	0.51 U	0.51 U	0.51 U
Hexachloroethane	NS	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Indeno(1,2,3-cd)Pyrene	8.2	0.27	0.47	0.094 J	0.065 J	0.43
Isophorone	4.4	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Naphthalene	12	0.12 J	0.15 J	0.13 J	0.18 U	0.12 J
Nitrobenzene	0.17	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
NitrosoDiPhenylAmine(NDPA)/DPA	NS	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
n-Nitrosodi-n-propylamine	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
P-Chloro-M-Cresol	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Pentachlorophenol	0.8	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Phenanthrene	1,000	0.38	0.72	0.14	0.08 J	0.48
Phenol	0.33	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Pyrene	1,000	0.49	1.1	0.15	0.1 J	0.66

Table 2
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Semivolatile Organic Compounds

Client ID	NYSDEC	SS-36B (5-6)	SS-37B (5-6)	SS-38SW (3-4)	SS-41NW (3-4)	SS-42NW (3-4)
Lab Sample ID	Part 375	L1209806-22	L1209806-23	L1209806-24	L1209806-27	L1209806-28
Date Sampled	Groundwater	6/1/2012	6/1/2012	6/1/2012	6/1/2012	6/1/2012
Dilution	SCO	1	2/20*	10	1	1
mg/kg	mg/kg					
1,2,4,5-Tetrachlorobenzene	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
1,2,4-Trichlorobenzene	3.4	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
1,2-Dichlorobenzene	1.1	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
1,3-Dichlorobenzene	2.4	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
1,4-Dichlorobenzene	1.8	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
2,4,5-Trichlorophenol	0.1	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
2,4,6-Trichlorophenol	NS	0.12 U	0.22 U	1.1 U	0.1 U	0.11 U
2,4-Dichlorophenol	0.4	0.18 U	0.33 U	1.6 U	0.16 U	0.16 U
2,4-Dimethylphenol	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
2,4-Dinitrophenol	0.2	0.94 U	1.7 U	8.7 U	0.84 U	0.86 U
2,4-Dinitrotoluene	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
2,6-Dinitrotoluene	0.17	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
2-Chloronaphthalene	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
2-Chlorophenol	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
2-Methylnaphthalene	36.4	0.24 U	0.52	2.2 U	0.1 J	0.17 J
2-Methylphenol	0.33	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
2-Nitroaniline	0.4	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
2-Nitrophenol	0.3	0.42 U	0.79 U	3.9 U	0.38 U	0.39 U
3,3'-Dichlorobenzidine	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
3-Methylphenol/4-Methylphenol	0.33	0.28 U	0.52 U	2.6 U	0.25 U	0.26 U
3-Nitroaniline	0.5	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
4,6-Dinitro-o-cresol	NS	0.51 U	0.95 U	4.7 U	0.46 U	0.47 U
4-Bromophenyl phenyl ether	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
4-Chloroaniline	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
4-Chlorophenyl phenyl ether	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
4-Nitroaniline	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
4-Nitrophenol	0.1	0.28 U	0.51 U	2.5 U	0.24 U	0.25 U
Acenaphthene	98	0.16 U	3.2	0.92 J	0.15	0.04 J
Acenaphthylene	107	0.16 U	1.1	0.81 J	0.12 J	0.082 J
Acetophenone	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
Anthracene	1,000	0.051 J	14	2.4	0.47	0.14
Benzo(a)anthracene	1	0.23	**29***	**8.5**	**1.7**	0.52
Benzo(a)pyrene	22	0.28	**25***	8.2	1.8	0.68
Benzo(b)fluoranthene	1.7	0.32	**28***	**9.6**	**2.2**	0.79
Benzo(ghi)perylene	1,000	0.25	10	5	1.1	0.59
Benzo(k)fluoranthene	1.7	0.14	**10***	**3.2**	0.74	0.39
Benzoic Acid	2.7	0.64 U	1.2 U	5.9 U	0.57 U	0.58 U
Benzyl Alcohol	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
Biphenyl	NS	0.45 U	0.83 U	4.1 U	0.4 U	0.41 U
Bis(2-chloroethoxy)methane	NS	0.21 U	0.39 U	2 U	0.19 U	0.19 U
Bis(2-chloroethyl)ether	NS	0.18 U	0.33 U	1.6 U	0.16 U	0.16 U
Bis(2-chloroisopropyl)ether	NS	0.24 U	0.44 U	2.2 U	0.21 U	0.22 U
Bis(2-Ethylhexyl)phthalate	435	0.2 U	0.36 U	1.8 U	0.18 U	0.048 J
Butyl benzyl phthalate	0.22	0.2 U	0.36 U	**2.1**	0.18 U	0.18 U
Carbazole	NS	0.2 U	4.3	0.89 J	0.15 J	0.048 J
Chrysene	1	0.25	**27***	**8.4**	**1.7**	0.6
Dibenzo(a,h)anthracene	1,000	0.052 J	4	1.4	0.28	0.13
Dibenzofuran	210	0.2 U	2.1	0.55 J	0.093 J	0.043 J
Diethyl phthalate	7.1	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
Dimethyl phthalate	27	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
Di-n-butylphthalate	8.1	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
Di-n-octylphthalate	120	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
Fluoranthene	1,000	0.33	75*	17	2.9	0.91
Fluorene	386	0.2 U	4.9	0.97 J	0.13 J	0.05 J
Hexachlorobenzene	1.4	0.12 U	0.22 U	1.1 U	0.1 U	0.11 U
Hexachlorobutadiene	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
Hexachlorocyclopentadiene	NS	0.56 U	1 U	5.2 U	0.5 U	0.52 U
Hexachloroethane	NS	0.16 U	0.29 U	1.4 U	0.14 U	0.14 U
Indeno(1,2,3-cd)Pyrene	8.2	0.23	**12**	5.6	1.4	0.62
Isophorone	4.4	0.18 U	0.33 U	1.6 U	0.16 U	0.16 U
Naphthalene	12	0.2 U	1	1.8 U	0.16 J	0.15 J
Nitrobenzene	0.17	0.18 U	0.33 U	1.6 U	0.16 U	0.16 U
NitrosoDiPhenylAmine(NDPA)/DPA	NS	0.16 U	0.29 U	1.4 U	0.14 U	0.14 U
n-Nitrosodi-n-propylamine	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
P-Chloro-M-Cresol	NS	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
Pentachlorophenol	0.8	0.16 U	0.29 U	1.4 U	0.14 U	0.14 U
Phenanthrene	1,000	0.16	76*	11	1.8	0.52
Phenol	0.33	0.2 U	0.36 U	1.8 U	0.18 U	0.18 U
Pyrene	1,000	0.32	64*	16	2.6	0.92

Table 2
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Semivolatile Organic Compounds

Client ID	NYSDEC	SS-43NW (3-4)	SS-44 EW (3-4)	SS-45 EW (3-4)	SS-46 NW (3-4)	SS-47 SW (3-4)
Lab Sample ID	Part 375	L1209806-29	L1209967-01	L1209967-02	L1209967-03	L1209967-04
Date Sampled	Groundwater	6/1/2012	6/5/2012	6/5/2012	6/4/2012	6/4/2012
Dilution	SCO	1	1	1	1	1
mg/kg	mg/kg					
1,2,4,5-Tetrachlorobenzene	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,2,4-Trichlorobenzene	3.4	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,2-Dichlorobenzene	1.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	2.4	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,4-Dichlorobenzene	1.8	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,4,5-Trichlorophenol	0.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,4,6-Trichlorophenol	NS	0.1 U	0.11 U	0.11 U	0.11 U	0.11 U
2,4-Dichlorophenol	0.4	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
2,4-Dimethylphenol	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,4-Dinitrophenol	0.2	0.84 U	0.86 U	0.88 U	0.88 U	0.86 U
2,4-Dinitrotoluene	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,6-Dinitrotoluene	0.17	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Chloronaphthalene	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Chlorophenol	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Methylnaphthalene	36.4	0.21 U	0.22 U	0.22 U	0.22 U	0.21 U
2-Methylphenol	0.33	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Nitroaniline	0.4	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2-Nitrophenol	0.3	0.38 U	0.39 U	0.4 U	0.39 U	0.38 U
3,3'-Dichlorobenzidine	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
3-Methylphenol/4-Methylphenol	0.33	0.25 U	0.26 U	0.26 U	0.26 U	0.26 U
3-Nitroaniline	0.5	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4,6-Dinitro-o-cresol	NS	0.46 U	0.47 U	0.48 U	0.48 U	0.46 U
4-Bromophenyl phenyl ether	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Chloroaniline	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Chlorophenyl phenyl ether	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Nitroaniline	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-Nitrophenol	0.1	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U
Acenaphthene	98	0.14 U	0.14 U	0.15 U	0.15 U	0.14 U
Acenaphthylene	107	0.14 U	0.14 U	0.15 U	0.15 U	0.14 U
Acetophenone	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Anthracene	1,000	0.05 J	0.11 U	0.11 U	0.042 J	0.11 U
Benzo(a)anthracene	1	0.18	0.11 U	0.039 J	0.15	0.11 U
Benzo(a)pyrene	22	0.22	0.14 U	0.044 J	0.17	0.14 U
Benzo(b)fluoranthene	1.7	0.25	0.11 U	0.035 J	0.16	0.11 U
Benzo(ghi)perylene	1,000	0.17	0.14 U	0.15 U	0.11 J	0.14 U
Benzo(k)fluoranthene	1.7	0.11	0.11 U	0.032 J	0.14	0.11 U
Benzoic Acid	2.7	0.57 U	0.58 U	0.59 U	0.59 U	0.58 U
Benzyl Alcohol	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Biphenyl	NS	0.4 U	0.41 U	0.42 U	0.42 U	0.41 U
Bis(2-chloroethoxy)methane	NS	0.19 U	0.19 U	0.2 U	0.2 U	0.19 U
Bis(2-chloroethyl)ether	NS	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Bis(2-chloroisopropyl)ether	NS	0.21 U	0.22 U	0.22 U	0.22 U	0.21 U
Bis(2-Ethylhexyl)phthalate	435	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Butyl benzyl phthalate	0.22	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbazole	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Chrysene	1	0.19	0.11 U	0.041 J	0.18	0.11 U
Dibenzo(a,h)anthracene	1,000	0.038 J	0.11 U	0.11 U	0.046 J	0.11 U
Dibenzofuran	210	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Diethyl phthalate	7.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Dimethyl phthalate	27	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Di-n-butylphthalate	8.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Di-n-octylphthalate	120	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Fluoranthene	1,000	0.3	0.088 J	0.074 J	0.4	0.11 U
Fluorene	386	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Hexachlorobenzene	1.4	0.1 U	0.11 U	0.11 U	0.11 U	0.11 U
Hexachlorobutadiene	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Hexachlorocyclopentadiene	NS	0.5 U	0.52 U	0.52 U	0.52 U	0.51 U
Hexachloroethane	NS	0.14 U	0.14 U	0.15 U	0.15 U	0.14 U
Indeno(1,2,3-cd)Pyrene	8.2	0.18	0.14 U	0.15 U	0.093 J	0.14 U
Isophorone	4.4	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Naphthalene	12	0.18 U	0.072 J	0.085 J	0.062 J	0.18 U
Nitrobenzene	0.17	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
NitrosoDiPhenylAmine(NDPA)/DPA	NS	0.14 U	0.14 U	0.15 U	0.15 U	0.14 U
n-Nitrosodi-n-propylamine	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
P-Chloro-M-Cresol	NS	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Pentachlorophenol	0.8	0.14 U	0.14 U	0.15 U	0.15 U	0.14 U
Phenanthrene	1,000	0.22	0.11	0.051 J	0.32	0.11 U
Phenol	0.33	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Pyrene	1,000	0.29	0.074 J	0.069 J	0.35	0.11 U

Table 2
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Semivolatile Organic Compounds

Client ID	NYSDEC	SS-48 B (6-7)	SS-49 B (6-7)	SS-50 WW (3-4)	SS-51 NW (3-4)
Lab Sample ID	Part 375	L1209967-05	L1209967-06	L1209967-07	L1209967-08
Date Sampled	Groundwater	6/5/2012	6/4/2012	6/4/2012	6/5/2012
Dilution	SCO	2	1	1	1
mg/kg	mg/kg				
1,2,4,5-Tetrachlorobenzene	NS	0.37 U	0.2 U	0.19 U	0.18 U
1,2,4-Trichlorobenzene	3.4	0.37 U	0.2 U	0.19 U	0.18 U
1,2-Dichlorobenzene	1.1	0.37 U	0.2 U	0.19 U	0.18 U
1,3-Dichlorobenzene	2.4	0.37 U	0.2 U	0.19 U	0.18 U
1,4-Dichlorobenzene	1.8	0.37 U	0.2 U	0.19 U	0.18 U
2,4,5-Trichlorophenol	0.1	0.37 U	0.2 U	0.19 U	0.18 U
2,4,6-Trichlorophenol	NS	0.22 U	0.12 U	0.12 U	0.11 U
2,4-Dichlorophenol	0.4	0.33 U	0.18 U	0.17 U	0.16 U
2,4-Dimethylphenol	NS	0.37 U	0.2 U	0.19 U	0.18 U
2,4-Dinitrophenol	0.2	1.8 U	0.94 U	0.93 U	0.87 U
2,4-Dinitrotoluene	NS	0.37 U	0.2 U	0.19 U	0.18 U
2,6-Dinitrotoluene	0.17	0.37 U	0.2 U	0.19 U	0.18 U
2-Chloronaphthalene	NS	0.37 U	0.2 U	0.19 U	0.18 U
2-Chlorophenol	NS	0.37 U	0.2 U	0.19 U	0.18 U
2-Methylnaphthalene	36.4	0.21 J	0.23 U	0.23 U	0.22 U
2-Methylphenol	0.33	0.37 U	0.2 U	0.19 U	0.18 U
2-Nitroaniline	0.4	0.37 U	0.2 U	0.19 U	0.18 U
2-Nitrophenol	0.3	0.8 U	0.42 U	0.42 U	0.39 U
3,3'-Dichlorobenzidine	NS	0.37 U	0.2 U	0.19 U	0.18 U
3-Methylphenol/4-Methylphenol	0.33	0.53 U	0.28 U	0.28 U	0.26 U
3-Nitroaniline	0.5	0.37 U	0.2 U	0.19 U	0.18 U
4,6-Dinitro-o-cresol	NS	0.96 U	0.51 U	0.5 U	0.47 U
4-Bromophenyl phenyl ether	NS	0.37 U	0.2 U	0.19 U	0.18 U
4-Chloroaniline	NS	0.37 U	0.2 U	0.19 U	0.18 U
4-Chlorophenyl phenyl ether	NS	0.37 U	0.2 U	0.19 U	0.18 U
4-Nitroaniline	NS	0.37 U	0.2 U	0.19 U	0.18 U
4-Nitrophenol	0.1	0.52 U	0.27 U	0.27 U	0.25 U
Acenaphthene	98	0.39	0.16 U	0.15 U	0.14 U
Acenaphthylene	107	0.59	0.16 U	0.15 U	0.14 U
Acetophenone	NS	0.37 U	0.2 U	0.19 U	0.18 U
Anthracene	1,000	1.4	0.12 U	0.12 U	0.11 U
Benzo(a)anthracene	1	**4.6**	0.12 U	0.12 U	0.11 U
Benzo(a)pyrene	22	5.3	0.16 U	0.15 U	0.14 U
Benzo(b)fluoranthene	1.7	**4.2**	0.12 U	0.12 U	0.11 U
Benzo(ghi)perylene	1,000	3.4	0.16 U	0.15 U	0.14 U
Benzo(k)fluoranthene	1.7	**4.5**	0.12 U	0.12 U	0.11 U
Benzoic Acid	2.7	1.2 U	0.63 U	0.62 U	0.58 U
Benzyl Alcohol	NS	0.37 U	0.2 U	0.19 U	0.18 U
Biphenyl	NS	0.85 U	0.44 U	0.44 U	0.41 U
Bis(2-chloroethoxy)methane	NS	0.4 U	0.21 U	0.21 U	0.2 U
Bis(2-chloroethyl)ether	NS	0.33 U	0.18 U	0.17 U	0.16 U
Bis(2-chloroisopropyl)ether	NS	0.44 U	0.23 U	0.23 U	0.22 U
Bis(2-Ethylhexyl)phthalate	435	0.37 U	0.2 U	0.19 U	0.18 U
Butyl benzyl phthalate	0.22	0.37 U	0.2 U	0.19 U	0.18 U
Carbazole	NS	0.34 J	0.2 U	0.19 U	0.18 U
Chrysene	1	**5.3**	0.12 U	0.12 U	0.11 U
Dibenzo(a,h)anthracene	1,000	1.4	0.12 U	0.12 U	0.11 U
Dibenzofuran	210	0.23 J	0.2 U	0.19 U	0.18 U
Diethyl phthalate	7.1	0.37 U	0.2 U	0.19 U	0.18 U
Dimethyl phthalate	27	0.37 U	0.2 U	0.19 U	0.18 U
Di-n-butylphthalate	8.1	0.37 U	0.2 U	0.19 U	0.18 U
Di-n-octylphthalate	120	0.37 U	0.2 U	0.19 U	0.18 U
Fluoranthene	1,000	9.4	0.12 U	0.12 U	0.11 U
Fluorene	386	0.39	0.2 U	0.19 U	0.18 U
Hexachlorobenzene	1.4	0.22 U	0.12 U	0.12 U	0.11 U
Hexachlorobutadiene	NS	0.37 U	0.2 U	0.19 U	0.18 U
Hexachlorocyclopentadiene	NS	1.1 U	0.56 U	0.55 U	0.52 U
Hexachloroethane	NS	0.3 U	0.16 U	0.15 U	0.14 U
Indeno(1,2,3-cd)Pyrene	8.2	3	0.16 U	0.15 U	0.14 U
Isophorone	4.4	0.33 U	0.18 U	0.17 U	0.16 U
Naphthalene	12	0.36 J	0.2 U	0.19 U	0.18 U
Nitrobenzene	0.17	0.33 U	0.18 U	0.17 U	0.16 U
NitrosoDiPhenylAmine(NDPA)/DPA	NS	0.3 U	0.16 U	0.15 U	0.14 U
n-Nitrosodi-n-propylamine	NS	0.37 U	0.2 U	0.19 U	0.18 U
P-Chloro-M-Cresol	NS	0.37 U	0.2 U	0.19 U	0.18 U
Pentachlorophenol	0.8	0.3 U	0.16 U	0.15 U	0.14 U
Phenanthrene	1,000	5.2	0.12 U	0.12 U	0.11 U
Phenol	0.33	0.37 U	0.2 U	0.19 U	0.18 U
Pyrene	1,000	8.9	0.12 U	0.12 U	0.11 U

Table 3

2477 Third Avenue

Bronx, NY

Soil Analytical Results End Point Sampling

Metals

Client ID Lab Sample ID Date Sampled Dilution mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	Eastern USA Soil Background mg/kg	SS-1-SW (5'-6') L1209484-01 5/25/2012 2/1*	SS-2-SW (4'-5') L1209484-02 5/25/2012 2/1*	SS-3-WW (6'-7') L1209484-03 5/25/2012 2/1*	SS-4-WW (6'-7') L1209484-04 5/25/2012 2/1*	SS-5-NW (5'-6') L1209484-05 5/25/2012 2/1*	SS-6-NW (6'-7') L1209484-06 5/25/2012 2/1*	SS-7-B (12') L1209484-07 5/25/2012 2/1*	SS-8-B (12') L1209484-08 5/25/2012 2/1*
Aluminum	**NS**	**33,000**	1,600	1,200	8,900	9,100	7,000	8,300	8,700	8,800
Antimony	**NS**	**NS**	5	0.96 J	1.7 J	2.2 J	1.2 J	1.4 J	1.6 J	1.6 J
Arsenic	**16**	**3 – 12**	1.1	1.1	2.6	3.4	2	2.6	3	3.7
Barium	**820**	**15 – 600**	6.6	3.7	32	35	21	29	26	27
Beryllium	**47**	**0 – 1.75**	0.09 J	0.09 J	0.39 J	0.38 J	0.3 J	0.36 J	0.32 J	0.34 J
Cadmium	**7.5**	**0.1 – 1**	0.79 U	0.79 U	0.86 U	0.84 U	0.83 U	0.83 U	1 U	1 U
Calcium	**NS**	**130 – 35,000**	150	87	920	1,000	1,100	760	770	970
Chromium	**19**	**1.5 – 40**	2.6	2.1	10	11	7.8	9.7	11	12
Cobalt	**NS**	**2.5 – 60**	1 J	0.64 J	6.1	6.5	4.3	4.5	6.3	6.9
Copper	**1720**	**1 – 50**	3.3	2	17	19	13	18	14	14
Iron	**NS**	**2,000 – 550,000**	3,400	3,100	15,000	19,000	11,000	13,000	15,000	17,000
Lead	**450**	**200 – 500 (2)**	5	1.9 J	16	30	9.2	6	5.2	5.9
Magnesium	**NS**	**100 – 5,000**	160	89	3,000	3,000	2,500	2,700	3,400	3,300
Manganese	**2000**	**50 – 5,000**	42	21	340	490	220	280	140	160
Mercury	**0.73**	**0.001 – 0.2**	0.02 J	0.03 J	0.03 J	0.09 U	0.02 J	0.02 J	0.1 U	0.09 U
Nickel	**130**	**0.5 – 25**	1.6 J	1 J	13	13	9.6	11	14	14
Potassium	**NS**	**NS**	91 J	75 J	830	870	750	880	790	760
Selenium	**4**	**0.1 – 3.9**	0.38 J	1.6 U	0.88 J	1.1 J	0.64 J	0.55 J	0.74 J	0.69 J
Silver	**8.3**	**NS**	0.79 U	0.79 U	0.86 U	0.84 U	0.83 U	0.83 U	1 U	1 U
Sodium	**NS**	**6,000 – 8,000**	160 U	160 U	120 J	93 J	170 U	120 J	88 J	86 J
Thallium	**NS**	**NS**	1.6 U	1.6 U	1.7 U	1.7 U	1.7 U	1.6 U	2.1 U	2 U
Vanadium	**NS**	**1 – 300**	4.9	3.9	15	16	11	15	12	14
Zinc	**2480**	**9 – 50**	6.6	3.4 J	48	72	35	42	39	40

Notes: * = Dilution factor for Mercury is 1

† = Dilution rate for Zinc is 20

Table 3

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Bronx, NY

Soil Analytical Results End Point Sampling

Metals

Client ID Lab Sample ID Date Sampled Dilution mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	Eastern USA Soil Background mg/kg	SS-9-B (12') L1209484-09 5/25/2012 2/1* 	SS-10-B (12') L1209484-10 5/25/2012 2/1* 	SS-11-B (12') L1209484-11 5/25/2012 2/1* 	SS-12-B (13') L1209484-12 5/25/2012 2/1* 	SS-13-B (12') L1209484-13 5/25/2012 2/1* 	SS-14-B (13') L1209484-14 5/25/2012 2/1* 	SS-16SW (3-4) L1209806-02 6/1/2012 2/1*
Aluminum	**NS**	**33,000**	8,400	8,600	8,800	9,200	9,300	9,800	9,100
Antimony	**NS**	**NS**	1.6 J	2.3 J	1.9 J	1.3 J	2.2 J	2 J	2.2 J
Arsenic	**16**	**3 – 12**	3.3	3.1	3.4	3.2	3.8	4	2.4
Barium	**820**	**15 – 600**	24	23	25	27	28	28	30
Beryllium	**47**	**0 – 1.75**	0.33 J	0.34 J	0.33 J	0.34 J	0.36 J	0.39 J	0.4 J
Cadmium	**7.5**	**0.1 – 1**	1 U	1 U	1 U	1 U	0.98 U	1 U	0.87 U
Calcium	**NS**	**130 – 35,000**	1,000	880	940	940	1,200	1,100	1,000
Chromium	**19**	**1.5 – 40**	11	12	12	12	12	13	12
Cobalt	**NS**	**2.5 – 60**	6.5	6.3	6.4	7	6.9	7.6	6.2
Copper	**1720**	**1 – 50**	13	14	15	14	14	16	15
Iron	**NS**	**2,000 – 550,000**	16,000	16,000	16,000	17,000	18,000	18,000	15,000
Lead	**450**	**200 – 500 (2)**	5.3	5.3	5.6	5.6	6.2	6.4	12
Magnesium	**NS**	**100 – 5,000**	3,100	3,200	3,400	3,500	3,500	3,700	3,200
Manganese	**2000**	**50 – 5,000**	150	150	150	160	170	170	270
Mercury	**0.73**	**0.001 – 0.2**	0.1 U	0.11 U	0.1 U	0.11 U	0.09 U	0.11 U	0.08 U
Nickel	**130**	**0.5 – 25**	14	14	15	15	15	16	14
Potassium	**NS**	**NS**	680	750	790	770	720	860	1,000
Selenium	**4**	**0.1 – 3.9**	0.74 J	0.56 J	0.63 J	0.66 J	0.78 J	0.75 J	0.85 J
Silver	**8.3**	**NS**	1 U	1 U	1 U	1 U	0.98 U	1 U	0.87 U
Sodium	**NS**	**6,000 – 8,000**	210 U	200 U	84 J	83 J	200 U	86 J	170
Thallium	**NS**	**NS**	2.1 U	2 U	2 U	2 U	2 U	2.1 U	1.7 U
Vanadium	**NS**	**1 – 300**	13	13	13	13	15	15	16
Zinc	**2480**	**9 – 50**	37	38	40	41	41	44	46

Notes: * = Dilution factor for Mercury is 1

† = Dilution rate for Zinc is 20

Table 3

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Bronx, NY

Soil Analytical Results End Point Sampling

Metals

Client ID Lab Sample ID Date Sampled Dilution mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	Eastern USA Soil Background mg/kg	SS-17WW (3-4) L1209806-03 6/1/2012 2/1*	SS-15SW (3-4) L1209806-01 6/1/2012 2/1* Duplicate	SS-18WW (3-4) L1209806-04 6/1/2012 2/1*	SS-19WW (3-4) L1209806-05 6/1/2012 2/1*	SS-20NW (3-4) L1209806-06 6/1/2012 2/1*	SS-21NW (3-4) L1209806-07 6/1/2012 2/1*	SS-22EW (3-4) L1209806-08 6/1/2012 2/1*
Aluminum	**NS**	**33,000**	6,600	7,700	9,000	8,500	7,400	8,400	8,300
Antimony	**NS**	**NS**	4.4	1.3 J	1.2 J	1.9 J	2.2 J	1.3 J	1 J
Arsenic	**16**	**3 – 12**	16	2.1	2.4	2.2	4.1	2.2	2
Barium	**820**	**15 – 600**	200	38	29	28	270	29	32
Beryllium	**47**	**0 – 1.75**	0.29 J	0.35 J	0.38 J	0.4 J	0.35 J	0.37 J	0.37 J
Cadmium	**7.5**	**0.1 – 1**	1.3	0.82 U	0.87 U	0.87 U	0.53 J	0.84 U	0.82 U
Calcium	**NS**	**130 – 35,000**	5,200	1,700	830	970	9,100	1,100	1,500
Chromium	**19**	**1.5 – 40**	**22**	9.8	12	11	12	11	10
Cobalt	**NS**	**2.5 – 60**	6.4	5.5	6	6	5.9	5.7	5.7
Copper	**1720**	**1 – 50**	180	21	14	12	90	13	17
Iron	**NS**	**2,000 – 550,000**	36,000	12,000	14,000	14,000	16,000	14,000	13,000
Lead	**450**	**200 – 500 (2)**	**640**	43	7.1	7.6	**720**	9.1	23
Magnesium	**NS**	**100 – 5,000**	2,100	2,700	2,900	2,900	3,600	2,900	2,800
Manganese	**2000**	**50 – 5,000**	410	350	300	330	290	380	380
Mercury	**0.73**	**0.001 – 0.2**	**1.2**	0.1	0.08 U	0.09 U	0.39	0.07 U	0.08 U
Nickel	**130**	**0.5 – 25**	18	12	13	13	14	12	12
Potassium	**NS**	**NS**	790	1,100	1,000	1,100	1,100	1,100	1,100
Selenium	**4**	**0.1 – 3.9**	2.3	0.93 J	0.8 J	0.78 J	1.1 J	0.69 J	0.8 J
Silver	**8.3**	**NS**	0.5 J	0.82 U	0.87 U	0.87 U	0.31 J	0.84 U	0.82 U
Sodium	**NS**	**6,000 – 8,000**	580	210	130 J	160 J	330	170	83 J
Thallium	**NS**	**NS**	1.7 U	1.6 U	1.7 U	1.7 U	1.7 U	1.7 U	1.6 U
Vanadium	**NS**	**1 – 300**	43	15	16	15	22	16	15
Zinc	**2480**	**9 – 50**	810	64	37	32	360	34	57

Notes: * = Dilution factor for Mercury is 1

† = Dilution rate for Zinc is 20

Table 3

2477 Third Avenue

Bronx, NY

Soil Analytical Results End Point Sampling

Metals

Client ID Lab Sample ID Date Sampled Dilution mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	Eastern USA Soil Background mg/kg	SS-23EW (3-4) L1209806-09 6/1/2012 2/1*	SS-39EW (3-4) L1209806-25 6/1/2012 2/1* Duplicate	SS-24EW (3-4) L1209806-10 6/1/2012 2/1*	SS-40EW (3-4) L1209806-26 6/1/2012 2/1* Duplicate	SS-25B (6-7) L1209806-11 6/1/2012 2/1*	SS-26B (6-7) L1209806-12 6/1/2012 2/1*	SS-27B (6-7) L1209806-13 6/1/2012 2/1*
Aluminum	**NS**	**33,000**	7,900	7,300	7,600	7,700	7,000	7,600	7,200
Antimony	**NS**	**NS**	1.1 J	1.1 J	0.86 J	1.4 J	0.84 J	1.3 J	1.2 J
Arsenic	**16**	**3 – 12**	1.8	1.6	1.5	2	1.9	2.2	2.5
Barium	**820**	**15 – 600**	27	22	29	36	32	47	87
Beryllium	**47**	**0 – 1.75**	0.37 J	0.34 J	0.36 J	0.36 J	0.31 J	0.35 J	0.32 J
Cadmium	**7.5**	**0.1 – 1**	0.18 J	0.84 U	0.1 J	0.82 U	0.8 U	0.82 U	0.56 J
Calcium	**NS**	**130 – 35,000**	1,200	1,100	1,200	4,700	1,200	1,800	3,600
Chromium	**19**	**1.5 – 40**	10	9.1	9.7	11	9.4	10	11
Cobalt	**NS**	**2.5 – 60**	5.5	4.8	5.4	5.4	5	5.3	5.4
Copper	**1720**	**1 – 50**	12	11	12	37	18	28	51
Iron	**NS**	**2,000 – 550,000**	13,000	12,000	13,000	12,000	12,000	13,000	13,000
Lead	**450**	**200 – 500 (2)**	8.5	10	8.4	79	26	51	110
Magnesium	**NS**	**100 – 5,000**	2,700	2,400	2,600	4,200	2,600	2,700	2,900
Manganese	**2000**	**50 – 5,000**	200	380	250	240	280	300	350
Mercury	**0.73**	**0.001 – 0.2**	0.08 U	0.02 J	0.08 U	0.02 J	0.21	0.09	0.13
Nickel	**130**	**0.5 – 25**	12	11	12	12	11	12	14
Potassium	**NS**	**NS**	1,000	840	1,000	940	960	1,000	960
Selenium	**4**	**0.1 – 3.9**	0.51 J	0.65 J	0.72 J	0.73 J	0.69 J	0.71 J	0.88 J
Silver	**8.3**	**NS**	0.84 U	0.84 U	0.82 U	0.82 U	0.8 U	0.82 U	0.14 J
Sodium	**NS**	**6,000 – 8,000**	140 J	110 J	72 J	160	220	280	360
Thallium	**NS**	**NS**	1.7 U	1.7 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Vanadium	**NS**	**1 – 300**	15	13	14	16	13	14	15
Zinc	**2480**	**9 – 50**	170	27	120	72	52	77	380

Notes: * = Dilution factor for Mercury is 1

† = Dilution rate for Zinc is 20

Table 3

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Bronx, NY

Soil Analytical Results End Point Sampling

Metals

Client ID Lab Sample ID Date Sampled Dilution mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	Eastern USA Soil Background mg/kg	SS-28B (6-7) L1209806-14 6/1/2012 2/1*	SS-29B (6-7) L1209806-15 6/1/2012 2/1*	SS-30B (6-7) L1209806-16 6/1/2012 2/1*	SS-31B (6-7) L1209806-17 6/1/2012 2/1*	SS-32B (6-7) L1209806-18 6/1/2012 2/1*	SS-33B (6-7) L1209806-19 6/1/2012 2/1*	SS-34B (6-7) L1209806-20 6/1/2012 2/1*
Aluminum	**NS**	**33,000**	6,800	6,400	6,800	7,200	7,500	7,500	8,100
Antimony	**NS**	**NS**	1.2 J	1.4 J	1.2 J	1 J	1.3 J	1 J	1.1 J
Arsenic	**16**	**3 – 12**	2.4	2.1	2.6	2.2	2	2	2.2
Barium	**820**	**15 – 600**	60	49	91	41	37	34	33
Beryllium	**47**	**0 – 1.75**	0.32 J	0.3 J	0.32 J	0.33 J	0.35 J	0.35 J	0.37 J
Cadmium	**7.5**	**0.1 – 1**	0.13 J	0.1 J	0.32 J	0.8 U	0.8 U	0.82 U	0.83 U
Calcium	**NS**	**130 – 35,000**	3,100	2,400	7,600	2,000	1,500	1,200	990
Chromium	**19**	**1.5 – 40**	9.7	9.2	10	10	10	9.7	10
Cobalt	**NS**	**2.5 – 60**	4.9	5	5.1	5.6	5.6	5.8	6.4
Copper	**1720**	**1 – 50**	43	39	64	30	24	24	16
Iron	**NS**	**2,000 – 550,000**	13,000	11,000	12,000	12,000	13,000	13,000	14,000
Lead	**450**	**200 – 500 (2)**	99	81	210	54	38	28	14
Magnesium	**NS**	**100 – 5,000**	3,000	2,600	3,800	3,000	2,700	2,700	2,700
Manganese	**2000**	**50 – 5,000**	280	250	240	300	350	470	380
Mercury	**0.73**	**0.001 – 0.2**	0.13	0.2	**2**	0.12	0.08 J	0.09 U	0.08 U
Nickel	**130**	**0.5 – 25**	13	12	13	12	12	13	12
Potassium	**NS**	**NS**	940	880	970	1,000	1,000	1,000	1,100
Selenium	**4**	**0.1 – 3.9**	1 J	0.76 J	0.72 J	0.87 J	0.68 J	0.99 J	0.71 J
Silver	**8.3**	**NS**	0.83 U	0.82 U	0.13 J	0.8 U	0.8 U	0.82 U	0.83 U
Sodium	**NS**	**6,000 – 8,000**	230	170	240	220	270	220	160 J
Thallium	**NS**	**NS**	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U
Vanadium	**NS**	**1 – 300**	14	13	14	14	14	14	14
Zinc	**2480**	**9 – 50**	140	97	200	81	80	58	40

Notes: * = Dilution factor for Mercury is 1

† = Dilution rate for Zinc is 20

Table 3

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Bronx, NY

Soil Analytical Results End Point Sampling

Metals

Client ID Lab Sample ID Date Sampled Dilution mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	Eastern USA Soil Background mg/kg	SS-35B (6-7) L1209806-21 6/1/2012 2/1*	SS-36B (5-6) L1209806-22 6/1/2012 2/1*	SS-37B (5-6) L1209806-23 6/1/2012 2/1*	SS-38SW (3-4) L1209806-24 6/1/2012 2/1*	SS-41NW (3-4) L1209806-27 6/1/2012 2/1*	SS-42NW (3-4) L1209806-28 6/1/2012 2/1*	SS-43NW (3-4) L1209806-29 6/1/2012 2/1*	SS-44 EW (3-4) L1209967-01 6/5/2012 1
Aluminum	**NS**	**33,000**	7,100	9,300	8,500	8,200	5,700	6,600	7,400	9,200
Antimony	**NS**	**NS**	1.6 J	5.8	1.8 J	2.2 J	1.3 J	4.5	1 J	1.2 J
Arsenic	**16**	**3 – 12**	2.4	2.5	2.2	5.6	2.7	4.8	1.7	1.3
Barium	**820**	**15 – 600**	53	32	42	150	100	71	22	36
Beryllium	**47**	**0 – 1.75**	0.33 J	0.41 J	0.38 J	0.4 J	0.29 J	0.31 J	0.33 J	0.32
Cadmium	**7.5**	**0.1 – 1**	0.08 J	0.91 U	0.86 U	0.78 J	0.36 J	0.18 J	0.81 U	0.09 J
Calcium	**NS**	**130 – 35,000**	3,200	1,100	2,900	7,600	6,400	5,200	930	1,400
Chromium	**19**	**1.5 – 40**	10	12	11	18	10	**20**	8.5	11
Cobalt	**NS**	**2.5 – 60**	5.2	7.1	6.2	6.8	4.7	6.3	4.5	4.7
Copper	**1720**	**1 – 50**	40	15	21	120	80	110	11	11
Iron	**NS**	**2,000 – 550,000**	13,000	16,000	14,000	19,000	11,000	29,000	11,000	12,000
Lead	**450**	**200 – 500 (2)**	100	12	38	**550**	220	110	7.4	28
Magnesium	**NS**	**100 – 5,000**	2,800	3,400	3,700	5,300	3,100	3,300	2,500	2,500
Manganese	**2000**	**50 – 5,000**	270	500	330	300	200	630	340	290
Mercury	**0.73**	**0.001 – 0.2**	0.16	0.04 J	0.14	**0.95**	0.13	0.27	0.08 U	0.15
Nickel	**130**	**0.5 – 25**	13	14	13	17	12	18	10	10
Potassium	**NS**	**NS**	910	1,100	1,000	1,100	840	890	730	690
Selenium	**4**	**0.1 – 3.9**	0.77 J	1 J	0.64 J	1.2 J	0.75 J	1.6 J	0.49 J	0.3 J
Silver	**8.3**	**NS**	0.82 U	0.91 U	0.86 U	0.27 J	0.17 J	0.24 J	0.81 U	0.42 U
Sodium	**NS**	**6,000 – 8,000**	200	130 J	160 J	240	200	330	110 J	130
Thallium	**NS**	**NS**	1.6 U	1.8 U	1.7 U	1.7 U	1.6 U	1.7 U	1.6 U	0.84 U
Vanadium	**NS**	**1 – 300**	14	16	15	25	14	19	13	14
Zinc	**2480**	**9 – 50**	100	44	72	360	170	250	27	44

Notes: * = Dilution factor for Mercury is 1

† = Dilution rate for Zinc is 20

Table 3

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Bronx, NY

Soil Analytical Results End Point Sampling

Metals

Client ID Lab Sample ID Date Sampled Dilution mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	Eastern USA Soil Background mg/kg	SS-45 EW (3-4) L1209967-02 6/5/2012 1	SS-46 NW (3-4) L1209967-03 6/4/2012 1	SS-47 SW (3-4) L1209967-04 6/4/2012 1	SS-48 B (6-7) L1209967-05 6/5/2012 1/20ł	SS-49 B (6-7) L1209967-06 6/4/2012 1	SS-50 WW (3-4) L1209967-07 6/4/2012 1	SS-51 NW (3-4) L1209967-08 6/5/2012 1
Aluminum	**NS**	**33,000**	9,300	8,000	6,800	7,700	9,200	8,500	9,800
Antimony	**NS**	**NS**	2.3	1.1 J	0.95 J	1.9 J	1.4 J	1.3 J	0.91 J
Arsenic	**16**	**3 – 12**	1.7	2.7	2	5.3	2.2	2.4	1.8
Barium	**820**	**15 – 600**	58	55	30	340	27	28	30
Beryllium	**47**	**0 – 1.75**	0.33	0.31	0.28	0.42	0.35	0.37	0.31
Cadmium	**7.5**	**0.1 – 1**	0.08 J	0.15 J	0.06 J	1.7	0.1 J	0.11 J	0.08 J
Calcium	**NS**	**130 – 35,000**	1,200	2,800	850	21,000	1,200	1,400	690
Chromium	**19**	**1.5 – 40**	11	9.8	10	13	13	10	11
Cobalt	**NS**	**2.5 – 60**	5.2	4.6	4.5	4.7	7.2	6	5.2
Copper	**1720**	**1 – 50**	12	24	9.5	400	16	14	9.5
Iron	**NS**	**2,000 – 550,000**	13,000	12,000	12,000	12,000	16,000	14,000	13,000
Lead	**450**	**200 – 500 (2)**	190	91	5.3	**800**	10	8.6	7.8
Magnesium	**NS**	**100 – 5,000**	2,800	2,500	2,200	4,800	3,200	3,000	2,500
Manganese	**2000**	**50 – 5,000**	190	340	430	240	290	240	160
Mercury	**0.73**	**0.001 – 0.2**	0.24	0.59	0.08 U	**1.2**	0.09 U	0.03 J	0.04 J
Nickel	**130**	**0.5 – 25**	11	13	10	17	14	13	11
Potassium	**NS**	**NS**	820	840	860	1,000	1,200	1,100	780
Selenium	**4**	**0.1 – 3.9**	0.46 J	0.59 J	0.43 J	0.56 J	0.53 J	0.47 J	0.27 J
Silver	**8.3**	**NS**	0.42 U	0.1 J	0.41 U	0.48	0.45 U	0.44 U	0.41 U
Sodium	**NS**	**6,000 – 8,000**	210	140	130	360	120	120	110
Thallium	**NS**	**NS**	0.84 U	0.84 U	0.82 U	0.85 U	0.9 U	0.88 U	0.82 U
Vanadium	**NS**	**1 – 300**	14	14	12	14	16	15	13
Zinc	**2480**	**9 – 50**	43	86	23	880ł	38	52	31

Notes: * = Dilution factor for Mercury is 1

† = Dilution rate for Zinc is 20

Table 4
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Polychlorinated Biphenyls & Pesticides

Client ID Lab Sample ID Date Sampled Polychlorinated Biphenyls - mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	SS-1-SW (5'-6') L1209484-01 5/25/2012	SS-2-SW (4'-5') L1209484-02 5/25/2012	SS-3-WW (6'-7') L1209484-03 5/25/2012	SS-4-WW (6'-7') L1209484-04 5/25/2012	SS-5-NW (5'-6') L1209484-05 5/25/2012	SS-6-NW (6'-7') L1209484-06 5/25/2012	SS-7-B (12') L1209484-07 5/25/2012	SS-8-B (12') L1209484-08 5/25/2012
Aroclor 1016	**3.2**	0.033 U	0.0343 U	0.0361 U	0.0358 U	0.0349 U	0.0347 U	0.043 U	0.0435 U
Aroclor 1221	**3.2**	0.033 U	0.0343 U	0.0361 U	0.0358 U	0.0349 U	0.0347 U	0.043 U	0.0435 U
Aroclor 1232	**3.2**	0.033 U	0.0343 U	0.0361 U	0.0358 U	0.0349 U	0.0347 U	0.043 U	0.0435 U
Aroclor 1242	**3.2**	0.033 U	0.0343 U	0.0361 U	0.0358 U	0.0349 U	0.0347 U	0.043 U	0.0435 U
Aroclor 1248	**3.2**	0.033 U	0.0343 U	0.0361 U	0.0358 U	0.0349 U	0.0347 U	0.043 U	0.0435 U
Aroclor 1254	**3.2**	0.033 U	0.0343 U	0.0361 U	0.0358 U	0.0349 U	0.0347 U	0.043 U	0.0435 U
Aroclor 1260	**3.2**	0.033 U	0.0343 U	0.0361 U	0.0358 U	0.0349 U	0.0347 U	0.043 U	0.0435 U
Pesticides - mg/kg									
4,4'-DDD	**14**	0.00162 U	0.00166 U	0.00175 U	0.0177 U	0.00168 U	0.0017 U	0.00217 U	0.00214 U
4,4'-DDE	**17**	0.00162 U	0.00166 U	0.00175 U	0.0177 U	0.00168 U	0.0017 U	0.00217 U	0.00214 U
4,4'-DDT	**136**	0.00303 U	0.0031 U	0.00327 U	0.0331 U	0.00316 U	0.00318 U	0.00408 U	0.004 U
Aldrin	**0.19**	0.00162 U	0.00166 U	0.00175 U	0.0177 U	0.00168 U	0.0017 U	0.00217 U	0.00214 U
Alpha-BHC	**0.02**	0.000673 U	0.00069 U	0.000728 U	0.00736 U	0.000702 U	0.000706 U	0.000906 U	0.00089 U
Beta-BHC	**0.09**	0.00162 U	0.00166 U	0.00175 U	0.0177 U	0.00168 U	0.0017 U	0.00217 U	0.00214 U
Chlordane	**2.9**	0.0131 U	0.0134 U	0.0142 U	0.144 U	0.0137 U	0.0138 U	0.0177 U	0.0173 U
Delta-BHC	**0.25**	0.00162 U	0.00166 U	0.00175 U	0.0177 U	0.00168 U	0.0017 U	0.00217 U	0.00214 U
Dieldrin	**0.1**	0.00101 U	0.00103 U	0.00109 U	0.011 U	0.00105 U	0.00106 U	0.00136 U	0.00133 U
Endosulfan I	**102**	0.00162 U	0.00166 U	0.00175 U	0.0177 U	0.00168 U	0.0017 U	0.00217 U	0.00214 U
Endosulfan II	**102**	0.00162 U	0.00166 U	0.00175 U	0.0177 U	0.00168 U	0.0017 U	0.00217 U	0.00214 U
Endosulfan sulfate	**1,000**	0.000673 U	0.00069 U	0.000728 U	0.00736 U	0.000702 U	0.000706 U	0.000906 U	0.00089 U
Endrin	**0.06**	0.000673 U	0.00069 U	0.000728 U	0.00736 U	0.000702 U	0.000706 U	0.000906 U	0.00089 U
Endrin ketone	**NS**	0.00162 U	0.00166 U	0.00175 U	0.0177 U	0.00168 U	0.0017 U	0.00217 U	0.00214 U
Heptachlor	**0.38**	0.000808 U	0.000828 U	0.000873 U	0.00884 U	0.000842 U	0.000848 U	0.00109 U	0.00107 U
Heptachlor epoxide	**0.02**	0.00303 U	0.0031 U	0.00327 U	0.0331 U	0.00316 U	0.00318 U	0.00408 U	0.004 U
Lindane	**0.1**	0.000673 U	0.00069 U	0.000728 U	0.00736 U	0.000632 J	0.000706 U	0.000906 U	0.00089 U
Methoxychlor	**900**	0.00303 U	0.0031 U	0.00327 U	0.0331 U	0.00316 U	0.00318 U	0.00408 U	0.004 U
Toxaphene	**NS**	0.0303 U	0.031 U	0.0327 U	0.331 U	0.0316 U	0.0318 U	0.0408 U	0.04 U
trans-Chlordane	**14**	0.00202 U	0.00207 U	0.00218 U	0.0221 U	0.0021 U	0.00212 U	0.00272 U	0.00267 U

Table 4

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Bronx, NY

Soil Analytical Results End Point Sampling

Polychlorinated Biphenyls & Pesticides

Client ID Lab Sample ID Date Sampled Polychlorinated Biphenyls - mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	SS-9-B (12') L1209484-09 5/25/2012	SS-10-B (12') L1209484-10 5/25/2012	SS-11-B (12') L1209484-11 5/25/2012	SS-12-B (13') L1209484-12 5/25/2012	SS-13-B (12') L1209484-13 5/25/2012	SS-14-B (13') L1209484-14 5/25/2012	SS-16SW (3-4) L1209806-02 6/1/2012
Aroclor 1016	**3.2**	0.0431 U	0.0424 U	0.0441 U	0.0447 U	0.0413 U	0.044 U	0.0381 U
Aroclor 1221	**3.2**	0.0431 U	0.0424 U	0.0441 U	0.0447 U	0.0413 U	0.044 U	0.0381 U
Aroclor 1232	**3.2**	0.0431 U	0.0424 U	0.0441 U	0.0447 U	0.0413 U	0.044 U	0.0381 U
Aroclor 1242	**3.2**	0.0431 U	0.0424 U	0.0441 U	0.0447 U	0.0413 U	0.044 U	0.0381 U
Aroclor 1248	**3.2**	0.0431 U	0.0424 U	0.0441 U	0.0447 U	0.0413 U	0.044 U	0.0381 U
Aroclor 1254	**3.2**	0.0431 U	0.0424 U	0.0441 U	0.0447 U	0.0413 U	0.044 U	0.0381 U
Aroclor 1260	**3.2**	0.0431 U	0.0424 U	0.0441 U	0.0447 U	0.0413 U	0.044 U	0.0381 U
Pesticides - mg/kg								
4,4'-DDD	**14**	0.00212 U	0.00212 U	0.00212 U	0.00214 U	0.00203 U	0.00206 U	0.00176 U
4,4'-DDE	**17**	0.00212 U	0.00212 U	0.00212 U	0.00214 U	0.00203 U	0.00206 U	0.00176 U
4,4'-DDT	**136**	0.00398 U	0.00397 U	0.00398 U	0.004 U	0.00381 U	0.00386 U	0.00329 U
Aldrin	**0.19**	0.00212 U	0.00212 U	0.00212 U	0.00214 U	0.00203 U	0.00206 U	0.00176 U
Alpha-BHC	**0.02**	0.000886 U	0.000883 U	0.000884 U	0.00089 U	0.000847 U	0.000857 U	0.000732 U
Beta-BHC	**0.09**	0.00212 U	0.00212 U	0.00212 U	0.00214 U	0.00203 U	0.00206 U	0.00176 U
Chlordane	**2.9**	0.0173 U	0.0172 U	0.0172 U	0.0174 U	0.0165 U	0.0167 U	0.0143 U
Delta-BHC	**0.25**	0.00212 U	0.00212 U	0.00212 U	0.00214 U	0.00203 U	0.00206 U	0.00176 U
Dieldrin	**0.1**	0.00133 U	0.00132 U	0.00132 U	0.00134 U	0.00127 U	0.00128 U	0.0011 U
Endosulfan I	**102**	0.00212 U	0.00212 U	0.00212 U	0.00214 U	0.00203 U	0.00206 U	0.00176 U
Endosulfan II	**102**	0.00212 U	0.00212 U	0.00212 U	0.00214 U	0.00203 U	0.00206 U	0.00176 U
Endosulfan sulfate	**1,000**	0.000886 U	0.000883 U	0.000884 U	0.00089 U	0.000847 U	0.000857 U	0.000732 U
Endrin	**0.06**	0.000886 U	0.000883 U	0.000884 U	0.00089 U	0.000847 U	0.000857 U	0.000732 U
Endrin ketone	**NS**	0.00212 U	0.00212 U	0.00212 U	0.00214 U	0.00203 U	0.00206 U	0.00176 U
Heptachlor	**0.38**	0.00106 U	0.00106 U	0.00106 U	0.00107 U	0.00102 U	0.00103 U	0.000878 U
Heptachlor epoxide	**0.02**	0.00398 U	0.00397 U	0.00398 U	0.004 U	0.00381 U	0.00386 U	0.00329 U
Lindane	**0.1**	0.000886 U	0.000883 U	0.000884 U	0.00089 U	0.000847 U	0.000857 U	0.000732 U
Methoxychlor	**900**	0.00398 U	0.00397 U	0.00398 U	0.004 U	0.00381 U	0.00386 U	0.00329 U
Toxaphene	**NS**	0.0398 U	0.0397 U	0.0398 U	0.04 U	0.0381 U	0.0386 U	0.0329 U
trans-Chlordane	**14**	0.00266 U	0.00265 U	0.00265 U	0.00267 U	0.00254 U	0.00257 U	0.0022 U

Table 4

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Bronx, NY

Soil Analytical Results End Point Sampling

Polychlorinated Biphenyls & Pesticides

Client ID Lab Sample ID Date Sampled Polychlorinated Biphenyls - mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	SS-17WW (3-4) L1209806-03 6/1/2012	SS-15SW (3-4) L1209806-01 6/1/2012 Duplicate	SS-18WW (3-4) L1209806-04 6/1/2012	SS-19WW (3-4) L1209806-05 6/1/2012	SS-20NW (3-4) L1209806-06 6/1/2012	SS-21NW (3-4) L1209806-07 6/1/2012	SS-22EW (3-4) L1209806-08 6/1/2012
Aroclor 1016	**3.2**	0.0359 U	0.0353 U	0.0367 U	0.0365 U	0.0358 U	0.0363 U	0.0351 U
Aroclor 1221	**3.2**	0.0359 U	0.0353 U	0.0367 U	0.0365 U	0.0358 U	0.0363 U	0.0351 U
Aroclor 1232	**3.2**	0.0359 U	0.0353 U	0.0367 U	0.0365 U	0.0358 U	0.0363 U	0.0351 U
Aroclor 1242	**3.2**	0.0359 U	0.0353 U	0.0367 U	0.0365 U	0.0358 U	0.0363 U	0.0351 U
Aroclor 1248	**3.2**	0.0359 U	0.0353 U	0.0367 U	0.0365 U	0.0358 U	0.0363 U	0.0351 U
Aroclor 1254	**3.2**	0.0359 U	0.0353 U	0.0367 U	0.0365 U	0.0268 J	0.0363 U	0.0351 U
Aroclor 1260	**3.2**	0.0359 U	0.0353 U	0.0367 U	0.0365 U	0.0358 U	0.0363 U	0.0351 U
Pesticides - mg/kg								
4,4'-DDD	**14**	0.0169 U	0.0164 U	0.00176 U	0.00174 U	0.0173 U	0.00168 U	0.00167 U
4,4'-DDE	**17**	0.0169 U	0.0164 U	0.00176 U	0.00174 U	0.0173 U	0.00168 U	0.00167 U
4,4'-DDT	**136**	0.0317 U	0.0307 U	0.00331 U	0.00327 U	0.0324 U	0.00316 U	0.00313 U
Aldrin	**0.19**	0.0169 U	0.0164 U	0.00176 U	0.00174 U	0.0173 U	0.00168 U	0.00167 U
Alpha-BHC	**0.02**	0.00704 U	0.00683 U	0.000736 U	0.000727 U	0.00719 U	0.000702 U	0.000695 U
Beta-BHC	**0.09**	0.0169 U	0.0164 U	0.00176 U	0.00174 U	0.0173 U	0.00168 U	0.00167 U
Chlordane	**2.9**	0.137 U	0.133 U	0.0143 U	0.0142 U	0.14 U	0.0137 U	0.0136 U
Delta-BHC	**0.25**	0.0169 U	0.0164 U	0.00176 U	0.00174 U	0.0173 U	0.00168 U	0.00167 U
Dieldrin	**0.1**	0.0106 U	0.0102 U	0.0011 U	0.00109 U	0.0108 U	0.00105 U	0.00104 U
Endosulfan I	**102**	0.0169 U	0.0164 U	0.00176 U	0.00174 U	0.0173 U	0.00168 U	0.00167 U
Endosulfan II	**102**	0.0169 U	0.0164 U	0.00176 U	0.00174 U	0.0173 U	0.00168 U	0.00167 U
Endosulfan sulfate	**1,000**	0.00704 U	0.00683 U	0.000736 U	0.000727 U	0.00719 U	0.000702 U	0.000695 U
Endrin	**0.06**	0.00704 U	0.00683 U	0.000736 U	0.000727 U	0.00719 U	0.000702 U	0.000695 U
Endrin ketone	**NS**	0.0169 U	0.0164 U	0.00176 U	0.00174 U	0.0173 U	0.00168 U	0.00167 U
Heptachlor	**0.38**	0.00845 U	0.0082 U	0.000883 U	0.000872 U	0.00863 U	0.000843 U	0.000834 U
Heptachlor epoxide	**0.02**	0.0317 U	0.0307 U	0.00331 U	0.00327 U	0.0324 U	0.00316 U	0.00313 U
Lindane	**0.1**	0.00704 U	0.00683 U	0.000736 U	0.000727 U	0.00719 U	0.000702 U	0.000695 U
Methoxychlor	**900**	0.0317 U	0.0307 U	0.00331 U	0.00327 U	0.0324 U	0.00316 U	0.00313 U
Toxaphene	**NS**	0.317 U	0.307 U	0.0331 U	0.0327 U	0.324 U	0.0316 U	0.0313 U
trans-Chlordane	**14**	0.0211 U	0.0205 U	0.00221 U	0.00218 U	0.0216 U	0.00211 U	0.00208 U

Table 4
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Polychlorinated Biphenyls & Pesticides

Client ID Lab Sample ID Date Sampled Polychlorinated Biphenyls - mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	SS-23EW (3-4) L1209806-09 6/1/2012	SS-39EW (3-4) L1209806-25 6/1/2012 Duplicate	SS-24EW (3-4) L1209806-10 6/1/2012	SS-40EW (3-4) L1209806-26 6/1/2012 Duplicate	SS-25B (6-7) L1209806-11 6/1/2012	SS-26B (6-7) L1209806-12 6/1/2012	SS-27B (6-7) L1209806-13 6/1/2012
Aroclor 1016	**3.2**	0.0374 U	0.0351 U	0.0354 U	0.0354 U	0.0331 U	0.0333 U	0.0334 U
Aroclor 1221	**3.2**	0.0374 U	0.0351 U	0.0354 U	0.0354 U	0.0331 U	0.0333 U	0.0334 U
Aroclor 1232	**3.2**	0.0374 U	0.0351 U	0.0354 U	0.0354 U	0.0331 U	0.0333 U	0.0334 U
Aroclor 1242	**3.2**	0.0374 U	0.0351 U	0.0354 U	0.0354 U	0.0331 U	0.0333 U	0.0334 U
Aroclor 1248	**3.2**	0.0374 U	0.0351 U	0.0354 U	0.0354 U	0.0331 U	0.0333 U	0.0334 U
Aroclor 1254	**3.2**	0.0374 U	0.0351 U	0.0354 U	0.0354 U	0.0331 U	0.0333 U	0.0334 U
Aroclor 1260	**3.2**	0.0374 U	0.0351 U	0.0354 U	0.0354 U	0.0331 U	0.0333 U	0.0334 U
Pesticides - mg/kg								
4,4'-DDD	**14**	0.00172 U	0.00167 U	0.00169 U	0.00164 U	0.0162 U	0.0166 U	0.0163 U
4,4'-DDE	**17**	0.00172 U	0.00167 U	0.00169 U	0.00164 U	0.0162 U	0.0166 U	0.0163 U
4,4'-DDT	**136**	0.00322 U	0.00313 U	0.00316 U	0.00307 U	0.0303 U	0.0311 U	0.0306 U
Aldrin	**0.19**	0.00172 U	0.00167 U	0.00169 U	0.00164 U	0.0162 U	0.0166 U	0.0163 U
Alpha-BHC	**0.02**	0.000716 U	0.000696 U	0.000703 U	0.000683 U	0.00674 U	0.0069 U	0.00679 U
Beta-BHC	**0.09**	0.00172 U	0.00167 U	0.00169 U	0.00164 U	0.0162 U	0.0166 U	0.0163 U
Chlordane	**2.9**	0.014 U	0.0136 U	0.0137 U	0.0133 U	0.131 U	0.135 U	0.132 U
Delta-BHC	**0.25**	0.00172 U	0.00167 U	0.00169 U	0.00164 U	0.0162 U	0.0166 U	0.0163 U
Dieldrin	**0.1**	0.00107 U	0.00104 U	0.00105 U	0.00102 U	0.0101 U	0.0104 U	0.0102 U
Endosulfan I	**102**	0.00172 U	0.00167 U	0.00169 U	0.00164 U	0.0162 U	0.0166 U	0.0163 U
Endosulfan II	**102**	0.00172 U	0.00167 U	0.00169 U	0.00164 U	0.0162 U	0.0166 U	0.0163 U
Endosulfan sulfate	**1,000**	0.000716 U	0.000696 U	0.000703 U	0.000683 U	0.00674 U	0.0069 U	0.00679 U
Endrin	**0.06**	0.000716 U	0.000696 U	0.000703 U	0.000683 U	0.00674 U	0.0069 U	0.00679 U
Endrin ketone	**NS**	0.00172 U	0.00167 U	0.00169 U	0.00164 U	0.0162 U	0.0166 U	0.0163 U
Heptachlor	**0.38**	0.000859 U	0.000835 U	0.000843 U	0.00082 U	0.00809 U	0.00828 U	0.00815 U
Heptachlor epoxide	**0.02**	0.00322 U	0.00313 U	0.00316 U	0.00307 U	0.0303 U	0.0311 U	0.0306 U
Lindane	**0.1**	0.000716 U	0.000696 U	0.000703 U	0.000683 U	0.00674 U	0.0069 U	0.00679 U
Methoxychlor	**900**	0.00322 U	0.00313 U	0.00316 U	0.00307 U	0.0303 U	0.0311 U	0.0306 U
Toxaphene	**NS**	0.0322 U	0.0313 U	0.0316 U	0.0307 U	0.303 U	0.311 U	0.306 U
trans-Chlordane	**14**	0.00215 U	0.00209 U	0.00211 U	0.00205 U	0.0202 U	0.0207 U	0.0204 U

Table 4

2477 Third Avenue

Bronx, NY

Soil Analytical Results End Point Sampling

Polychlorinated Biphenyls & Pesticides

Client ID Lab Sample ID Date Sampled Polychlorinated Biphenyls - mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	SS-28B (6-7) L1209806-14 6/1/2012	SS-29B (6-7) L1209806-15 6/1/2012	SS-30B (6-7) L1209806-16 6/1/2012	SS-31B (6-7) L1209806-17 6/1/2012	SS-32B (6-7) L1209806-18 6/1/2012	SS-33B (6-7) L1209806-19 6/1/2012	SS-34B (6-7) L1209806-20 6/1/2012
Aroclor 1016	**3.2**	0.035 U	0.0356 U	0.0352 U	0.0349 U	0.0351 U	0.0354 U	0.0355 U
Aroclor 1221	**3.2**	0.035 U	0.0356 U	0.0352 U	0.0349 U	0.0351 U	0.0354 U	0.0355 U
Aroclor 1232	**3.2**	0.035 U	0.0356 U	0.0352 U	0.0349 U	0.0351 U	0.0354 U	0.0355 U
Aroclor 1242	**3.2**	0.035 U	0.0356 U	0.0352 U	0.0349 U	0.0351 U	0.0354 U	0.0355 U
Aroclor 1248	**3.2**	0.035 U	0.0356 U	0.0352 U	0.0349 U	0.0351 U	0.0354 U	0.0355 U
Aroclor 1254	**3.2**	0.035 U	0.0356 U	0.0352 U	0.0349 U	0.0351 U	0.0354 U	0.0355 U
Aroclor 1260	**3.2**	0.035 U	0.0356 U	0.0352 U	0.0349 U	0.0351 U	0.0354 U	0.0355 U
Pesticides - mg/kg								
4,4'-DDD	**14**	0.0166 U	0.0164 U	0.00163 U	0.0162 U	0.0164 U	0.0165 U	0.0163 U
4,4'-DDE	**17**	0.0166 U	0.0164 U	0.00163 U	0.0162 U	0.0164 U	0.0165 U	0.0163 U
4,4'-DDT	**136**	0.0312 U	0.0307 U	0.00305 U	0.0303 U	0.0307 U	0.031 U	0.0305 U
Aldrin	**0.19**	0.0166 U	0.0164 U	0.00163 U	0.0162 U	0.0164 U	0.0165 U	0.0163 U
Alpha-BHC	**0.02**	0.00694 U	0.00682 U	0.000678 U	0.00673 U	0.00682 U	0.00688 U	0.00678 U
Beta-BHC	**0.09**	0.0166 U	0.0164 U	0.00163 U	0.0162 U	0.0164 U	0.0165 U	0.0163 U
Chlordane	**2.9**	0.135 U	0.133 U	0.0132 U	0.131 U	0.133 U	0.134 U	0.132 U
Delta-BHC	**0.25**	0.0166 U	0.0164 U	0.00163 U	0.0162 U	0.0164 U	0.0165 U	0.0163 U
Dieldrin	**0.1**	0.0104 U	0.0102 U	0.00102 U	0.0101 U	0.0102 U	0.0103 U	0.0102 U
Endosulfan I	**102**	0.0166 U	0.0164 U	0.00163 U	0.0162 U	0.0164 U	0.0165 U	0.0163 U
Endosulfan II	**102**	0.0166 U	0.0164 U	0.00163 U	0.0162 U	0.0164 U	0.0165 U	0.0163 U
Endosulfan sulfate	**1,000**	0.00694 U	0.00682 U	0.000678 U	0.00673 U	0.00682 U	0.00688 U	0.00678 U
Endrin	**0.06**	0.00694 U	0.00682 U	0.000678 U	0.00673 U	0.00682 U	0.00688 U	0.00678 U
Endrin ketone	**NS**	0.0166 U	0.0164 U	0.00163 U	0.0162 U	0.0164 U	0.0165 U	0.0163 U
Heptachlor	**0.38**	0.00832 U	0.00818 U	0.000813 U	0.00808 U	0.00818 U	0.00826 U	0.00814 U
Heptachlor epoxide	**0.02**	0.0312 U	0.0307 U	0.00305 U	0.0303 U	0.0307 U	0.031 U	0.0305 U
Lindane	**0.1**	0.00694 U	0.00682 U	0.000678 U	0.00673 U	0.00682 U	0.00688 U	0.00678 U
Methoxychlor	**900**	0.0312 U	0.0307 U	0.00305 U	0.0303 U	0.0307 U	0.031 U	0.0305 U
Toxaphene	**NS**	0.312 U	0.307 U	0.0305 U	0.303 U	0.307 U	0.31 U	0.305 U
trans-Chlordane	**14**	0.0208 U	0.0204 U	0.00203 U	0.0202 U	0.0204 U	0.0206 U	0.0204 U

Table 4

2477 Third Avenue

Bronx, NY

Soil Analytical Results End Point Sampling

Polychlorinated Biphenyls & Pesticides

Client ID Lab Sample ID Date Sampled Polychlorinated Biphenyls - mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	SS-35B (6-7) L1209806-21 6/1/2012	SS-36B (5-6) L1209806-22 6/1/2012	SS-37B (5-6) L1209806-23 6/1/2012	SS-38SW (3-4) L1209806-24 6/1/2012	SS-41NW (3-4) L1209806-27 6/1/2012	SS-42NW (3-4) L1209806-28 6/1/2012	SS-43NW (3-4) L1209806-29 6/1/2012
Aroclor 1016	**3.2**	0.0355 U	0.039 U	0.0359 U	0.0352 U	0.0351 U	0.0347 U	0.0342 U
Aroclor 1221	**3.2**	0.0355 U	0.039 U	0.0359 U	0.0352 U	0.0351 U	0.0347 U	0.0342 U
Aroclor 1232	**3.2**	0.0355 U	0.039 U	0.0359 U	0.0352 U	0.0351 U	0.0347 U	0.0342 U
Aroclor 1242	**3.2**	0.0355 U	0.039 U	0.0359 U	0.0352 U	0.0351 U	0.0347 U	0.0342 U
Aroclor 1248	**3.2**	0.0355 U	0.039 U	0.0359 U	0.0352 U	0.0351 U	0.0347 U	0.0342 U
Aroclor 1254	**3.2**	0.0355 U	0.039 U	0.0359 U	0.0352 U	0.0351 U	0.0347 U	0.0342 U
Aroclor 1260	**3.2**	0.0355 U	0.039 U	0.0359 U	0.0195 J	0.0351 U	0.0347 U	0.0342 U
Pesticides - mg/kg								
4,4'-DDD	**14**	0.0166 U	0.00187 U	0.0169 U	0.0168 U	0.0165 U	0.0165 U	0.00167 U
4,4'-DDE	**17**	0.0166 U	0.00187 U	0.0169 U	0.0168 U	0.0165 U	0.0165 U	0.00167 U
4,4'-DDT	**136**	0.0311 U	0.00351 U	0.0318 U	0.0315 U	0.031 U	0.0309 U	0.00313 U
Aldrin	**0.19**	0.0166 U	0.00187 U	0.0169 U	0.0168 U	0.0165 U	0.0165 U	0.00167 U
Alpha-BHC	**0.02**	0.0069 U	0.00078 U	0.00706 U	0.00699 U	0.00689 U	0.00687 U	0.000695 U
Beta-BHC	**0.09**	0.0166 U	0.00187 U	0.0169 U	0.0168 U	0.0165 U	0.0165 U	0.00167 U
Chlordane	**2.9**	0.135 U	0.0152 U	0.138 U	0.136 U	0.134 U	0.134 U	0.0136 U
Delta-BHC	**0.25**	0.0166 U	0.000546 J	0.0169 U	0.0168 U	0.0165 U	0.0165 U	0.00167 U
Dieldrin	**0.1**	0.0104 U	0.00117 U	0.0106 U	0.0105 U	0.0103 U	0.0103 U	0.00104 U
Endosulfan I	**102**	0.0166 U	0.00187 U	0.0169 U	0.0168 U	0.0165 U	0.0165 U	0.00167 U
Endosulfan II	**102**	0.0166 U	0.00187 U	0.0169 U	0.0168 U	0.0165 U	0.0165 U	0.00167 U
Endosulfan sulfate	**1,000**	0.0069 U	0.00078 U	0.00706 U	0.00699 U	0.00689 U	0.00687 U	0.000695 U
Endrin	**0.06**	0.0069 U	0.00078 U	0.00706 U	0.00699 U	0.00689 U	0.00687 U	0.000695 U
Endrin ketone	**NS**	0.0166 U	0.00187 U	0.0169 U	0.0168 U	0.0165 U	0.0165 U	0.00167 U
Heptachlor	**0.38**	0.00829 U	0.000936 U	0.00847 U	0.00839 U	0.00826 U	0.00824 U	0.000834 U
Heptachlor epoxide	**0.02**	0.0311 U	0.00351 U	0.0318 U	0.0315 U	0.031 U	0.0309 U	0.00313 U
Lindane	**0.1**	0.0069 U	0.00078 U	0.00706 U	0.00699 U	0.00689 U	0.00687 U	0.000695 U
Methoxychlor	**900**	0.0311 U	0.00351 U	0.0318 U	0.0315 U	0.031 U	0.0309 U	0.00313 U
Toxaphene	**NS**	0.311 U	0.0351 U	0.318 U	0.315 U	0.31 U	0.309 U	0.0313 U
trans-Chlordane	**14**	0.0207 U	0.00234 U	0.0212 U	0.021 U	0.0207 U	0.0206 U	0.00208 U

Table 4
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Polychlorinated Biphenyls & Pesticides

Client ID Lab Sample ID Date Sampled Polychlorinated Biphenyls - mg/kg	NYSDEC Part 375 Groundwater SCO mg/kg	SS-44 EW (3-4) L1209967-01 6/5/2012	SS-45 EW (3-4) L1209967-02 6/5/2012	SS-46 NW (3-4) L1209967-03 6/4/2012	SS-47 SW (3-4) L1209967-04 6/4/2012	SS-48 B (6-7) L1209967-05 6/5/2012	SS-49 B (6-7) L1209967-06 6/4/2012	SS-50 WW (3-4) L1209967-07 6/4/2012	SS-51 NW (3-4) L1209967-08 6/5/2012
Aroclor 1016	**3.2**	0.0352 U	0.0367 U	0.035 U	0.0345 U	0.0362 U	0.0382 U	0.037 U	0.0358 U
Aroclor 1221	**3.2**	0.0352 U	0.0367 U	0.035 U	0.0345 U	0.0362 U	0.0382 U	0.037 U	0.0358 U
Aroclor 1232	**3.2**	0.0352 U	0.0367 U	0.035 U	0.0345 U	0.0362 U	0.0382 U	0.037 U	0.0358 U
Aroclor 1242	**3.2**	0.0352 U	0.0367 U	0.035 U	0.0345 U	0.0362 U	0.0382 U	0.037 U	0.0358 U
Aroclor 1248	**3.2**	0.0352 U	0.0367 U	0.035 U	0.0345 U	0.0362 U	0.0382 U	0.037 U	0.0358 U
Aroclor 1254	**3.2**	0.0352 U	0.0367 U	0.035 U	0.0345 U	0.0201 J	0.0382 U	0.037 U	0.0358 U
Aroclor 1260	**3.2**	0.0352 U	0.0367 U	0.035 U	0.0345 U	0.0362 U	0.0382 U	0.037 U	0.0358 U
Pesticides - mg/kg									
4,4'-DDD	**14**	0.00171 U	0.00169 U	0.00172 U	0.00166 U	0.0348 U	0.00177 U	0.00175 U	0.00173 U
4,4'-DDE	**17**	0.00171 U	0.00169 U	0.00172 U	0.00166 U	0.0348 U	0.00177 U	0.00175 U	0.00173 U
4,4'-DDT	**136**	0.0032 U	0.00318 U	0.00322 U	0.00311 U	0.0652 U	0.00333 U	0.00329 U	0.00324 U
Aldrin	**0.19**	0.00171 U	0.00169 U	0.00172 U	0.00166 U	0.0348 U	0.00177 U	0.00175 U	0.00173 U
Alpha-BHC	**0.02**	0.000711 U	0.00119	0.000716 U	0.000691 U	0.0145 U	0.000739 U	0.000731 U	0.000721 U
Beta-BHC	**0.09**	0.00171 U	0.00169 U	0.00172 U	0.00166 U	0.0348 U	0.00177 U	0.00175 U	0.00173 U
Chlordane	**2.9**	0.0139 U	0.0138 U	0.014 U	0.0135 U	0.283 U	0.0144 U	0.0142 U	0.0141 U
Delta-BHC	**0.25**	0.00171 U	0.00169 U	0.00172 U	0.00166 U	0.0348 U	0.00177 U	0.00175 U	0.00173 U
Dieldrin	**0.1**	0.00107 U	0.00106 U	0.00107 U	0.00104 U	0.0217 U	0.00111 U	0.0011 U	0.00108 U
Endosulfan I	**102**	0.00171 U	0.00169 U	0.00172 U	0.00166 U	0.0348 U	0.00177 U	0.00175 U	0.00173 U
Endosulfan II	**102**	0.00171 U	0.00169 U	0.00172 U	0.00166 U	0.0348 U	0.00177 U	0.00175 U	0.00173 U
Endosulfan sulfate	**1,000**	0.000711 U	0.000706 U	0.000716 U	0.000691 U	0.0145 U	0.000739 U	0.000731 U	0.000721 U
Endrin	**0.06**	0.000711 U	0.000706 U	0.000716 U	0.000691 U	0.0145 U	0.000739 U	0.000731 U	0.000721 U
Endrin ketone	**NS**	0.00171 U	0.00169 U	0.00172 U	0.00166 U	0.0348 U	0.00177 U	0.00175 U	0.00173 U
Heptachlor	**0.38**	0.000854 U	0.000847 U	0.000859 U	0.000829 U	0.0174 U	0.000887 U	0.000877 U	0.000865 U
Heptachlor epoxide	**0.02**	0.0032 U	0.00318 U	0.00322 U	0.00311 U	0.0652 U	0.00333 U	0.00329 U	0.00324 U
Lindane	**0.1**	0.00171	0.00166	0.000716 U	0.000691 U	0.0145 U	0.000739 U	0.000731 U	0.000721 U
Methoxychlor	**900**	0.0032 U	0.00318 U	0.00322 U	0.00311 U	0.0652 U	0.00333 U	0.00329 U	0.00324 U
Toxaphene	**NS**	0.032 U	0.0318 U	0.0322 U	0.0311 U	0.652 U	0.0333 U	0.0329 U	0.0324 U
trans-Chlordane	**14**	0.00213 U	0.00212 U	0.00215 U	0.00207 U	0.0435 U	0.00222 U	0.00219 U	0.00216 U

Tables 1-4
2477 Third Avenue
Bronx, NY
Soil Analytical Results End Point Sampling
Notes

GENERAL

NS : No soil cleanup objective listed.

ND : No Detect

U : The analyte was not detected at the indicated concentration.

J : The concentration given is an estimated value.

E : The concentration given is an estimated value.

Exceedences: NYSDEC Part 375 Groundwater are highlighted in gray.

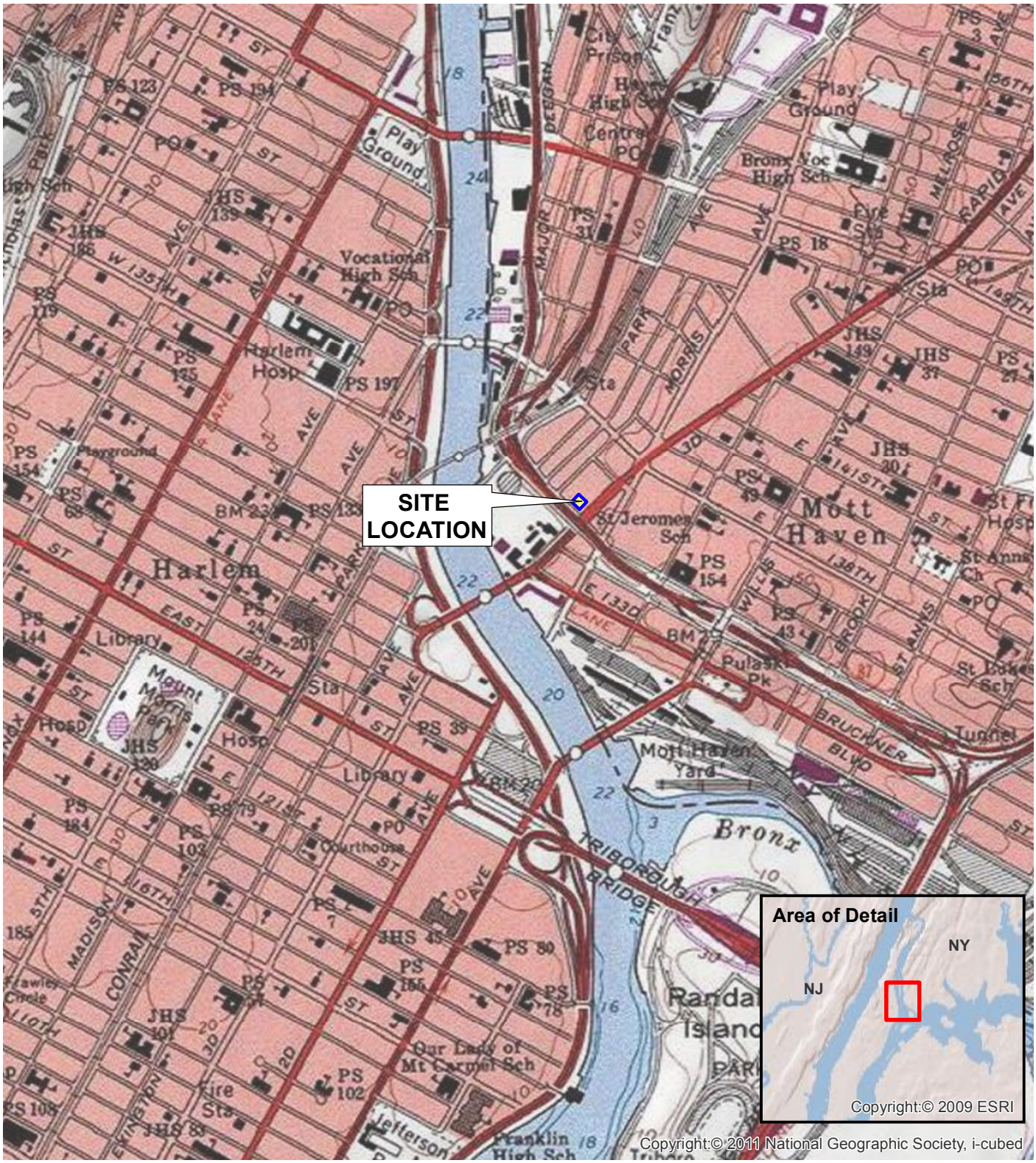
Part 375 Protection of Groundwater : Groundwater Clean-up Objectives listed in NYSDEC (New York State Department of Environmental Conservation) "Part 375" Regulations (6 NYCRR Part 375).

Eastern USA Background : For heavy metals, Eastern US Soil Background may be used as soil cleanup objectives.

mg/kg : milligrams per kilogram = parts per million (ppm)

*** :** Site specific action level

FIGURES



SOURCE
USGS 7.5 Minute Topographic Map
CENTRAL PARK Quad 1995

0 1,000 2,000 Feet

2477 THIRD AVENUE
BRONX, NEW YORK

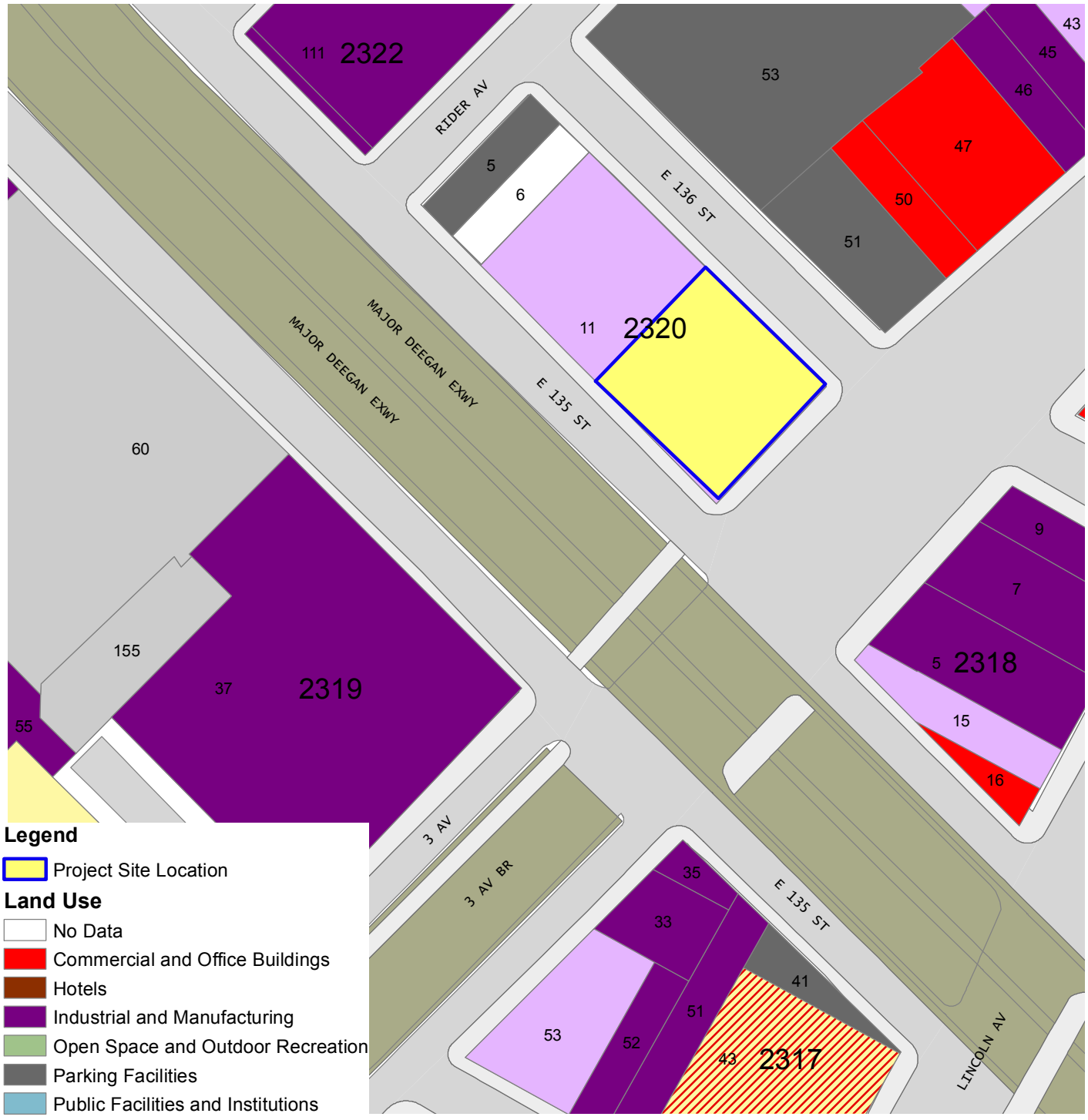
SITE LOCATION

AKRF
Environmental Consultants
440 Park Avenue South, New York, N.Y. 10016

DATE
7/25/2012

PROJECT No.
11160

FIGURE
1

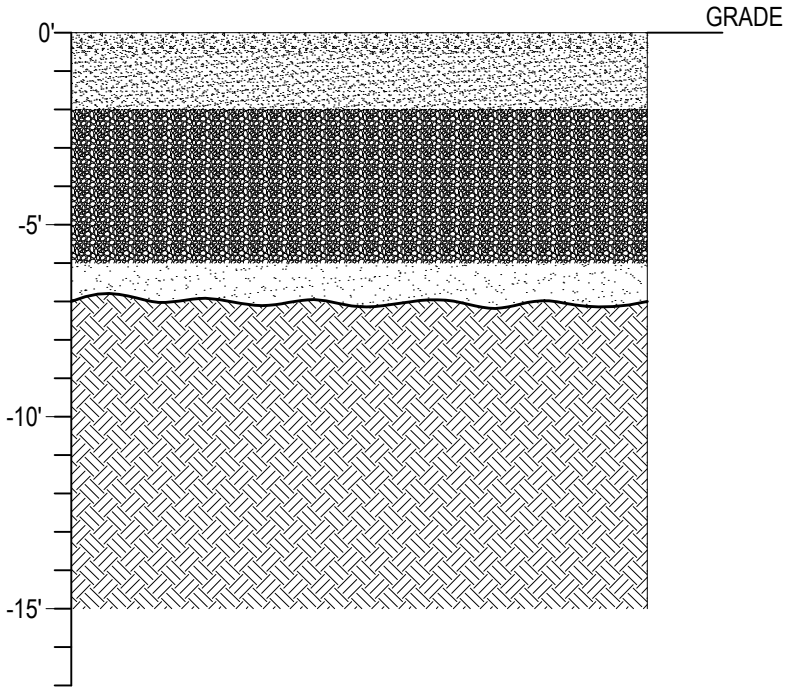


2477 THIRD AVENUE
BRONX, NEW YORK

LAND USE MAP

AKRF
Environmental Consultants
440 Park Avenue South, New York, N.Y. 10016

DATE
7/25/2012
PROJECT No.
11160
FIGURE
2



Legend

- Concrete
- Silty sand, gravel rock & concrete (Fill)
- Silty-sand, Fine gravel (Fill)
- Sand (Fill)
- Silty sand, Fine silt
- Water table

2477 THIRD AVENUE

BRONX, NEW YORK

GEOLOGICAL CROSS SECTION

AKRF

Environmental Consultants

440 Park Avenue South, New York, N.Y. 10016

DATE **10.28.2015**

PROJECT No. **11160**

SCALE **as shown**

FIGURE **3**

LEGEND:

PROJECT SITE BOUNDARY

0.45 — GROUNDWATER ELEVATION CONTOUR (BRONX TOPOGRAPHICAL BUREAU DATUM) MEASURED NOVEMBER 2010

ASR\MW-8 — SHALLOW AQUIFER MONITORING WELL

GROUNDWATER FLOW DIRECTION

0' 15' 30' 60'

SCALE IN FEET

AKRF
Environmental Consultants
440 Park Avenue South, New York, NY 10016

2477 THIRD AVENUE
BRONX, NEW YORK

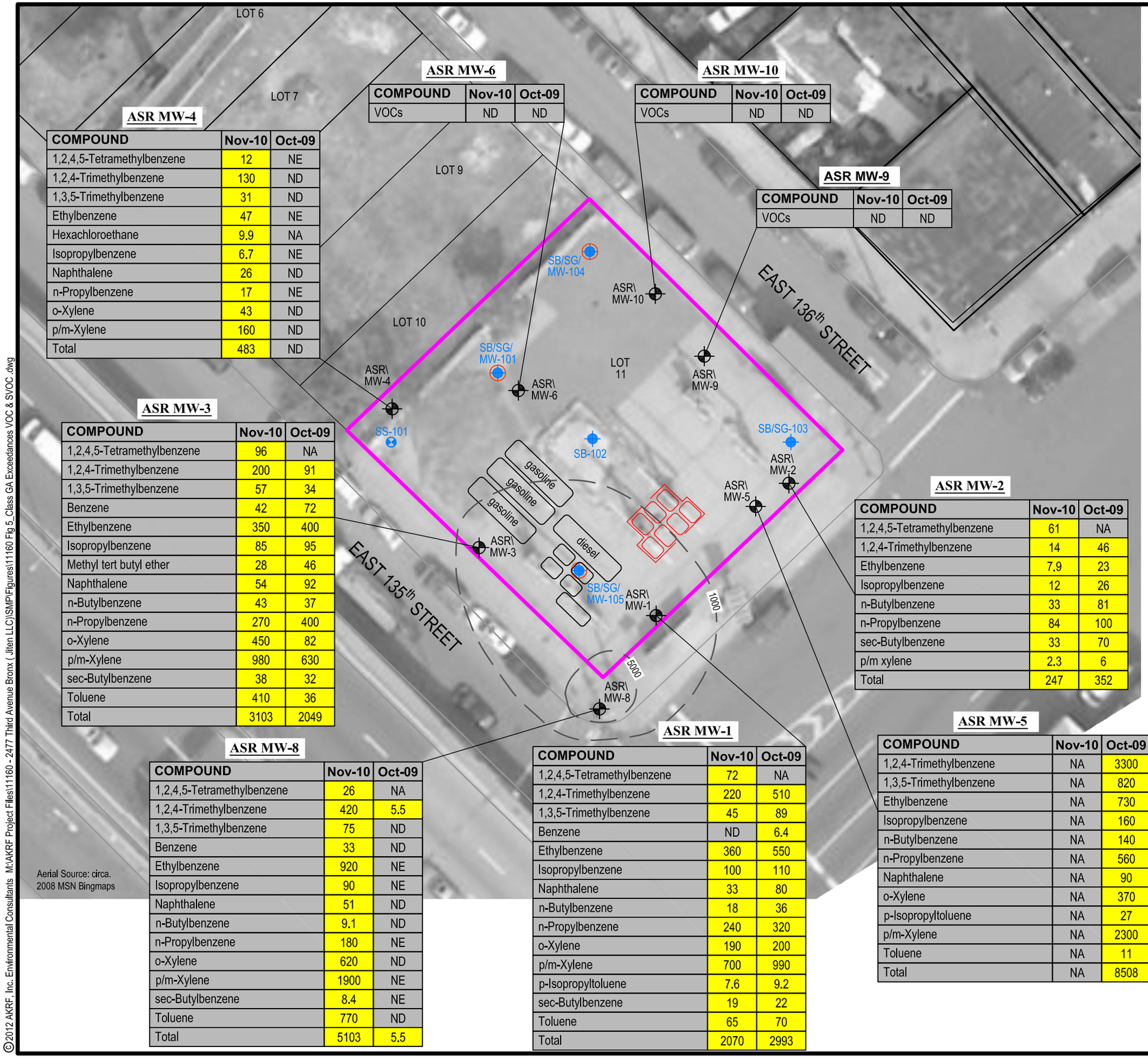
SHALLOW AQUIFER WATER TABLE ELEVATIONS

DATE
7.25.2012

PROJECT NO.
11160

SCALE
as shown

FIGURE
4



ASR MW-4

COMPOUND	Nov-10	Oct-09
1,2,4,5-Tetramethylbenzene	12	NE
1,2,4-Trimethylbenzene	130	ND
1,3,5-Trimethylbenzene	31	ND
Ethylbenzene	47	NE
Hexachloroethane	9.9	NA
Isopropylbenzene	6.7	NE
Naphthalene	26	ND
n-Propylbenzene	17	NE
o-Xylene	43	ND
p/m-Xylene	160	ND
Total	483	ND

ASR MW-6

COMPOUND	Nov-10	Oct-09
VOCs	ND	ND

ASR MW-10

COMPOUND	Nov-10	Oct-09
VOCs	ND	ND

ASR MW-9

COMPOUND	Nov-10	Oct-09
VOCs	ND	ND

ASR MW-3

COMPOUND	Nov-10	Oct-09
1,2,4,5-Tetramethylbenzene	96	NA
1,2,4-Trimethylbenzene	200	91
1,3,5-Trimethylbenzene	57	34
Benzene	42	72
Ethylbenzene	350	400
Isopropylbenzene	85	95
Methyl tert butyl ether	28	46
Naphthalene	54	92
n-Butylbenzene	43	37
n-Propylbenzene	270	400
o-Xylene	450	82
p/m-Xylene	980	630
sec-Butylbenzene	38	32
Toluene	410	36
Total	3103	2049

ASR MW-2

COMPOUND	Nov-10	Oct-09
1,2,4,5-Tetramethylbenzene	61	NA
1,2,4-Trimethylbenzene	14	46
Ethylbenzene	7.9	23
Isopropylbenzene	12	26
n-Butylbenzene	33	81
n-Propylbenzene	84	100
sec-Butylbenzene	33	70
p/m xylene	2.3	6
Total	247	352

ASR MW-8

COMPOUND	Nov-10	Oct-09
1,2,4,5-Tetramethylbenzene	26	NA
1,2,4-Trimethylbenzene	420	5.5
1,3,5-Trimethylbenzene	75	ND
Benzene	33	ND
Ethylbenzene	920	NE
Isopropylbenzene	90	NE
Naphthalene	51	ND
n-Butylbenzene	9.1	ND
n-Propylbenzene	180	NE
o-Xylene	620	ND
p/m-Xylene	1900	NE
sec-Butylbenzene	8.4	NE
Toluene	770	ND
Total	5103	5.5

ASR MW-1

COMPOUND	Nov-10	Oct-09
1,2,4,5-Tetramethylbenzene	72	NA
1,2,4-Trimethylbenzene	220	510
1,3,5-Trimethylbenzene	45	89
Benzene	ND	6.4
Ethylbenzene	360	550
Isopropylbenzene	100	110
Naphthalene	33	80
n-Butylbenzene	18	36
n-Propylbenzene	240	320
o-Xylene	190	200
p/m-Xylene	700	990
p-Isopropyltoluene	7.6	9.2
sec-Butylbenzene	19	22
Toluene	65	70
Total	2070	2993

ASR MW-5

COMPOUND	Nov-10	Oct-09
1,2,4-Trimethylbenzene	NA	3300
1,3,5-Trimethylbenzene	NA	820
Ethylbenzene	NA	730
Isopropylbenzene	NA	160
n-Butylbenzene	NA	140
n-Propylbenzene	NA	560
Naphthalene	NA	90
o-Xylene	NA	370
p-Isopropyltoluene	NA	27
p/m-Xylene	NA	2300
Toluene	NA	11
Total	NA	8508

Aerial Source: circa. 2008 MSN Bingmaps

LEGEND:

- PROJECT SITE BOUNDARY
- SB/SG-102 — SOIL BORING AND SOIL VAPOR SAMPLING LOCATION
- SB/SG/MW-101 — SOIL BORING, SOIL VAPOR SAMPLING AND DEEP WELL LOCATION
- SS-101 — SURFACE SOIL SAMPLE
- ASR\ MW-8 — SHALLOW MONITORING WELL INSTALLED BY ADVANCED SITE RESTORATION, LLC (ASR) FROM 2007 TO 2008
- FORMER 4,000 GALLON UST
- FORMER 1,200-GALLON GASOLINE UST FILLED WITH CONCRETE
- FORMER 550-GALLON UST
- SUSPECTED LOCATION OF 7 FORMER 550-GALLON GASOLINE USTs (not found)
- UST — UNDERGROUND STORAGE TANK
- 1000 — CONTOUR LINE OF TOTAL VOCS EXCEEDING CLASS GA STANDARDS IN PPB (AKRF Nov 2010 RIR DATA)

Sample ID number: **ASR MW-6**

COMPOUND	Nov-10	Oct-09
VOCs	ND	ND

AKRF's Nov 2010 RIR Data

AKRF's Oct 2009 Quarterly Monitoring Data

Concentration in parts per billion (ppb) or micrograms per liter(µg/l)

ND	NOT DETECTED
NA	NOT ANALYZED
NE	DID NOT EXCEED CLASS GA STANDARD
11	EXCEEDANCE OF CLASS GA STANDARD

0' 15' 30' 60'

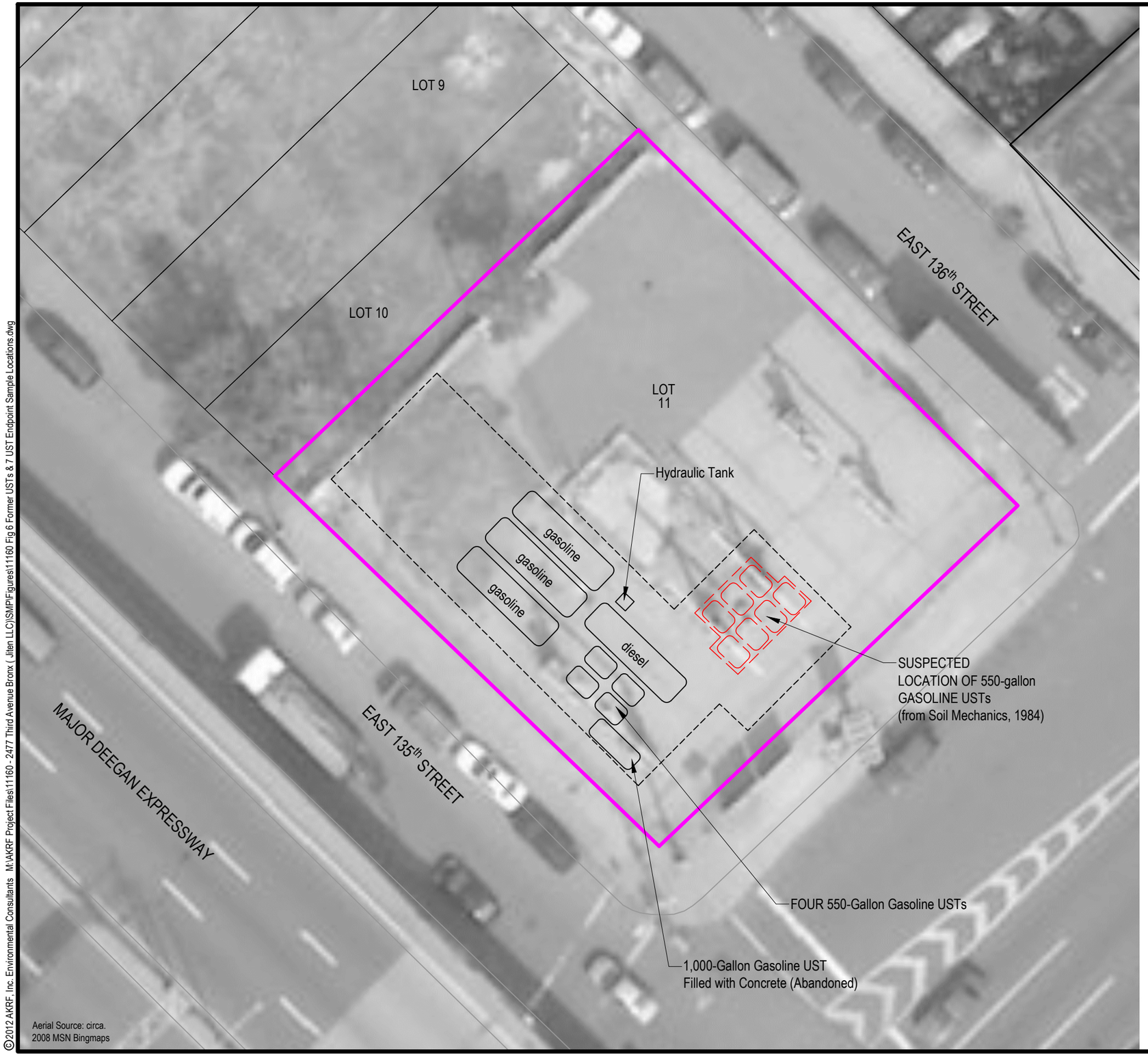
SCALE IN FEET

AKRF
Environmental Consultants
440 Park Avenue South, New York, NY 10016

2477 THIRD AVENUE
BRONX, NEW YORK

CLASS GA EXCEEDANCES OF VOC & SVOC CONCENTRATIONS IN SHALLOW GROUNDWATER

DATE: 7.25.2012
PROJECT NO.: 11160
SCALE: as shown
FIGURE: 5



LEGEND:

PROJECT SITE BOUNDARY

UST EXCAVATION AND TEST PIT INVESTIGATION AREA

UST UNDERGROUND STORAGE TANK

0' 10' 20' 40'

SCALE IN FEET

AKRF
Environmental Consultants
440 Park Avenue South, New York, NY 10016

2477 THIRD AVENUE
BRONX, NEW YORK

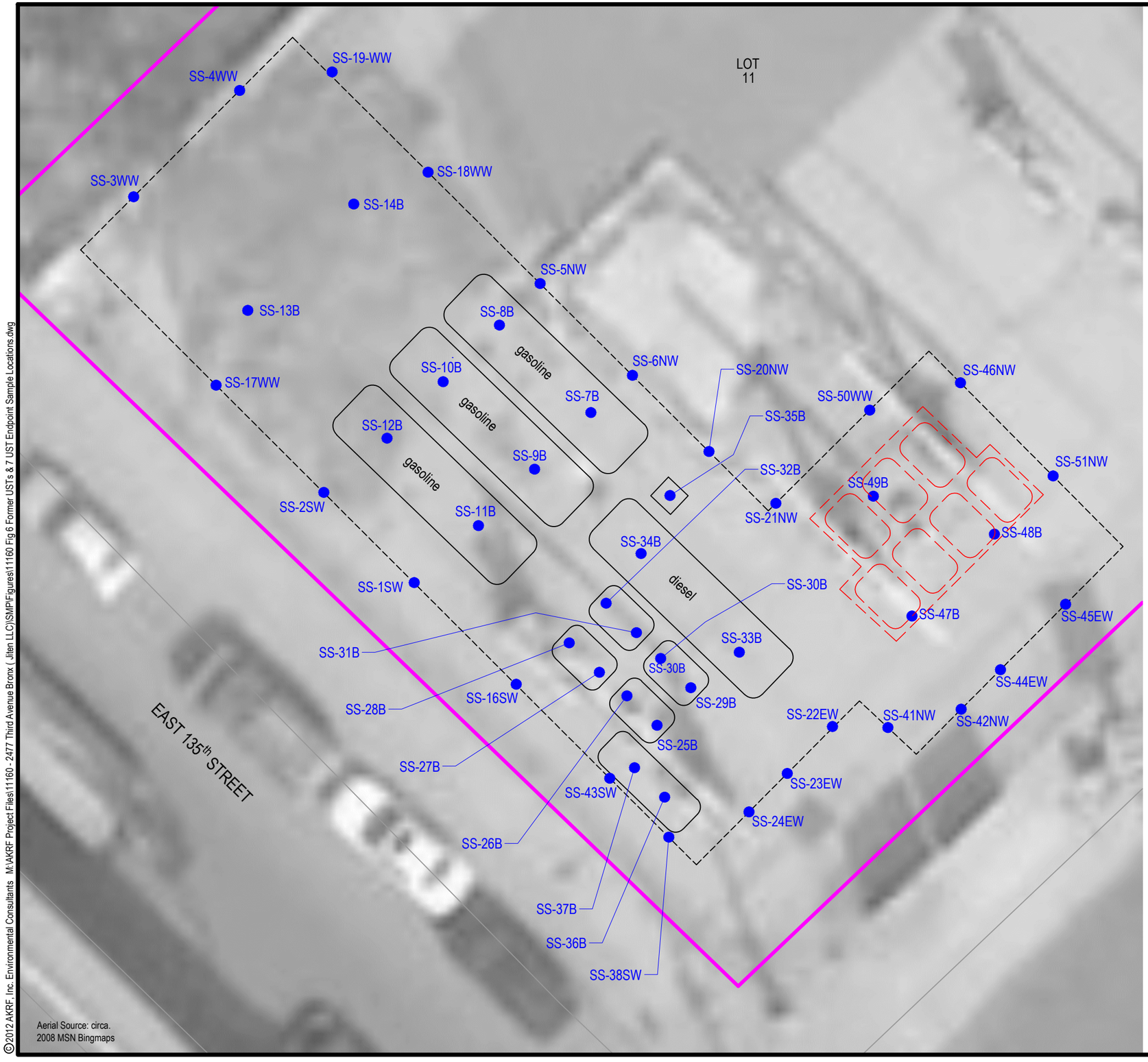
FORMER UNDERGROUND STORAGE TANK (UST) LOCATIONS

DATE
7.20.2012

PROJECT NO.
11160

SCALE
as shown

FIGURE
6



LEGEND:

PROJECT SITE BOUNDARY

SS-21NW
ENDPOINT SAMPLING LOCATION

4,000-GALLON UST

1,200-GALLON UST

550-GALLON UST

UST EXCAVATION AND
TEST PIT INVESTIGATION AREA

SUSPECTED LOCATION OF
550-GALLON GASOLINE USTs
(not found)

0' 5' 10' 20'
SCALE IN FEET

AKRF
Environmental Consultants
440 Park Avenue South, New York, NY 10016

2477 THIRD AVENUE
BRONX, NEW YORK

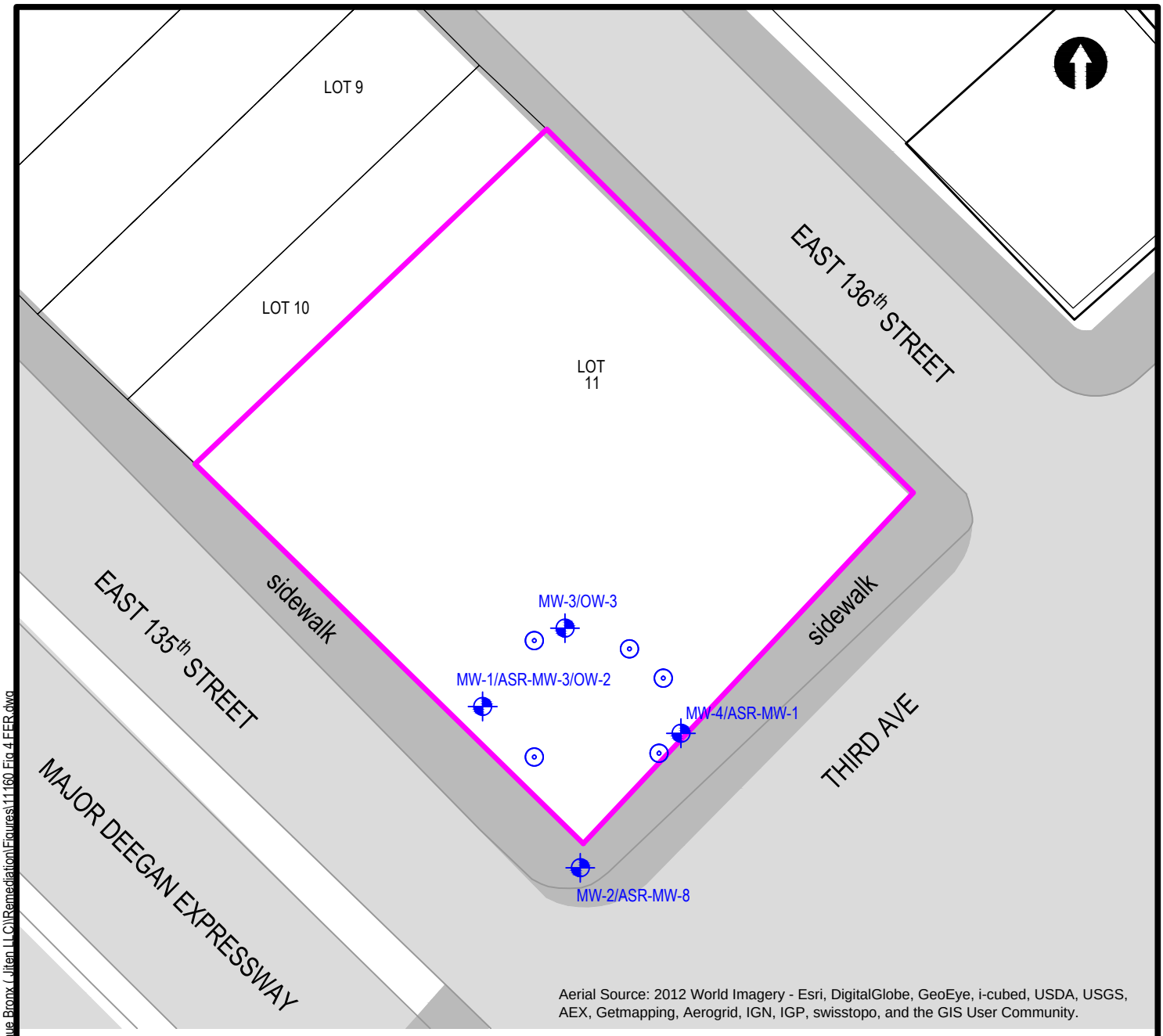
UST & TEST PIT EXCAVATION AREAS WITH END-POINT SAMPLE LOCATIONS

DATE
7.30.2012

PROJECT NO.
11160

SCALE
as shown

FIGURE
7



Aerial Source: 2012 World Imagery - Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.

LEGEND:

- PROJECT SITE BOUNDARY
- LOCATION OF MONITORING WELL
- LOCATION OF 2" INJECTION WELL

0' 15' 30' 60'

SCALE IN FEET

2477 Third Avenue

Bronx, New York

SITE PLAN

AKRF

Environmental Consultants

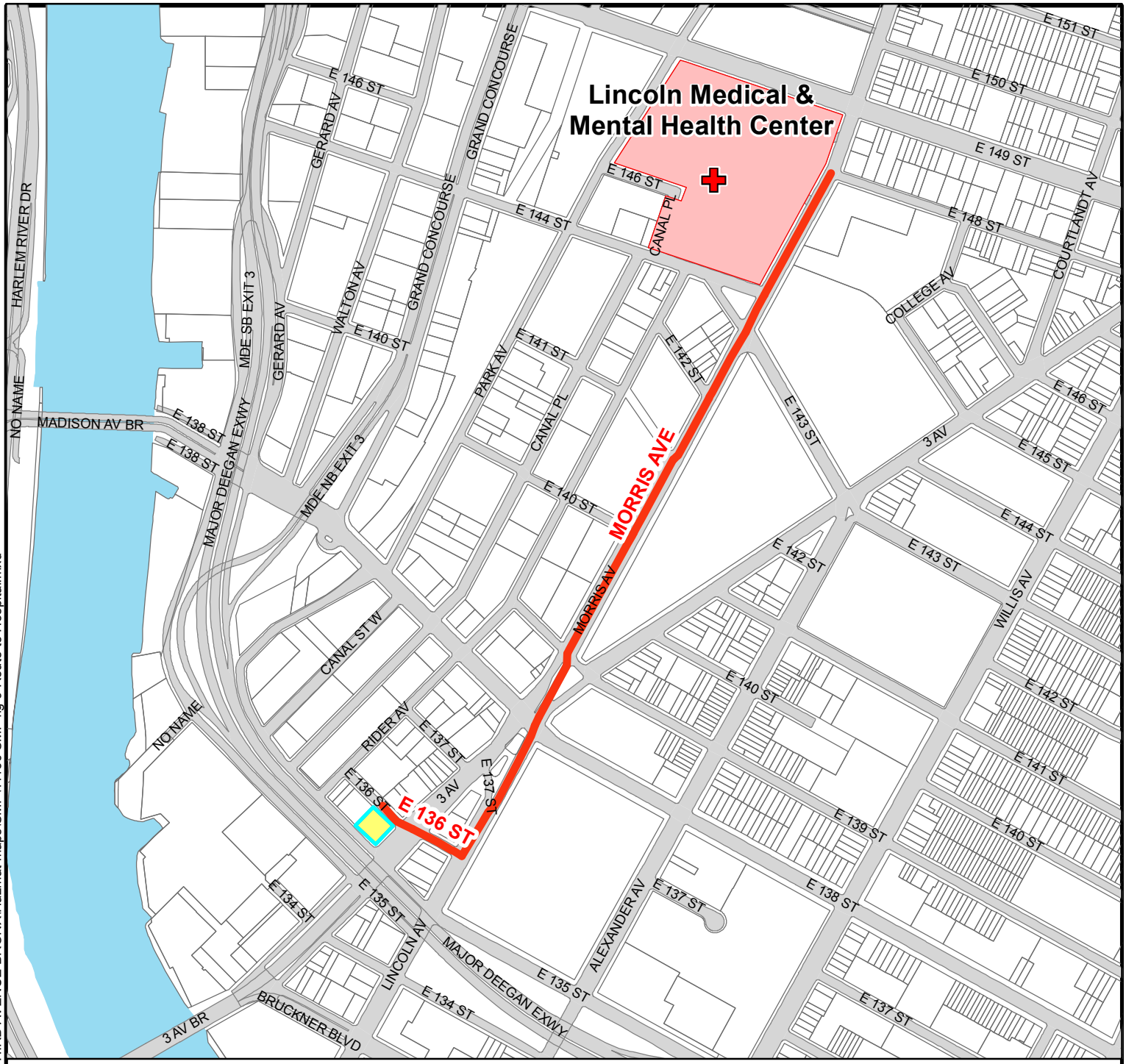
440 Park Avenue South, New York, N.Y. 10016

DATE 09.25.2015

PROJECT No. 11160

SCALE as shown

FIGURE 8



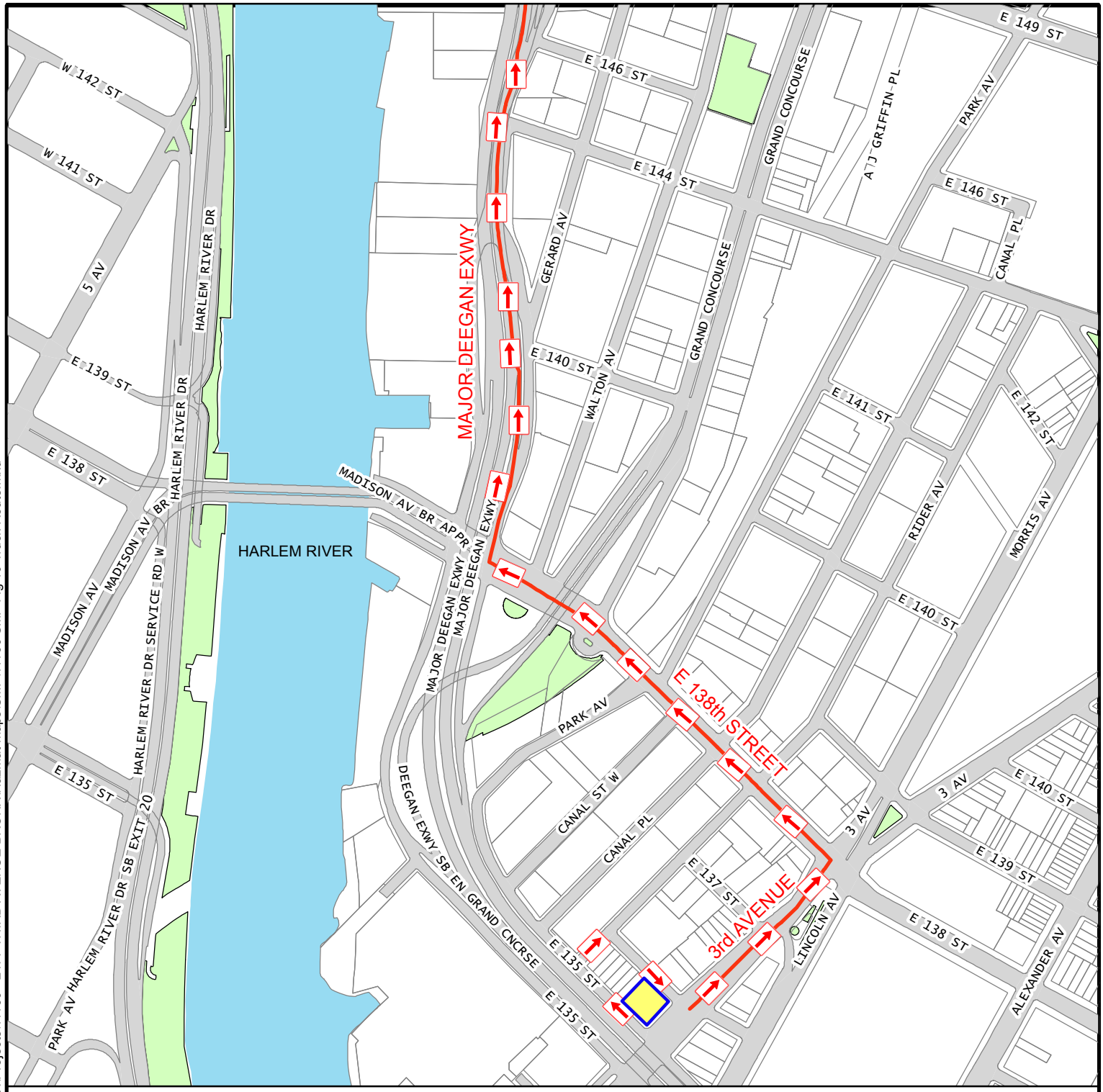
Legend

- Project Site Location
- Route To Hospital
- Hospital Location

0 0.1 Miles

Lincoln Medical and Mental Health Center
234 East 149th Street
Bronx, New York 10451
Tel. (718) 579-5000

2477 THIRD AVENUE BRONX, NEW YORK	AKRF	DATE **7/25/2012**
HOSPITAL LOCATION MAP	Environmental Consultants 440 Park Avenue South, New York, N.Y. 10016	PROJECT No. **11160** FIGURE **9**



Legend

- Project Site Location
- Truck Route Direction
- Truck Route

0 500 1,000 Feet

2477 THIRD AVENUE
BRONX, NEW YORK

TRUCK ROUTE MAP

AKRF
Environmental Consultants
440 Park Avenue South, New York, N.Y. 10016

DATE
7/25/2012

PROJECT No.
11160

FIGURE
10

APPENDIX A

EXCAVATION WORK PLAN

APPENDIX A – EXCAVATION WORK PLAN

A-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the Site owner or their representative will notify the Department. The table below includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information.

Contact Notifications*

Sarah Quandt, P.E. NYSDEC Central Office Representative	(518) 402-9824 / sarah.quandt@dec.ny.gov
Jane O'Connell NYSDEC Region 2 Office Representative	(718) 482-4599 / jane.oconnell@dec.ny.com
Kelly Lewandowski NYSDEC Site Control, Central Office	(518) 402-9569 / kelly.lewandowski@dec.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for Site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control,
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work,
- A summary of the applicable components of this EWP,
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120,

- A copy of the contractor's health and safety plan, in electronic format, if it differs from the HASP provided in Appendix C of this document,
- Identification of disposal facilities for potential waste streams,
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

A-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil.

A-3 STOCKPILE METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points. Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC.

Alternative procedures to stockpiling could include, but are not limited to, agreement(s) from the intended disposal or treatment facilities to accept analytical data previously obtained so that materials may be directly loaded onto trucks for shipment to the disposal facility.

A-4 MATERIALS EXCAVATION AND LOAD OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material. The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the Site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the activities performed under this section are complete. Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

A-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks will be washed prior to leaving the Site. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

A truck route map is provided as Figure 10, which shows the route to the northbound Major Deegan. Once on the Major Deegan, trucks will drive north for 1.8 miles to Exit 7 and take Interstate 95. All trucks loaded with Site materials will exit the vicinity of the Site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; [(g) community input [where necessary]]

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site. Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site remediation and development. Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

A-6 MATERIALS DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this Site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this Site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic

Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

A-7 MATERIALS REUSE ON-SITE

Soil to be reused on-site will be tested for VOCs, SVOCs, pesticides, PCBs, and Target Analyte List (TAL) metals by a New York State-certified laboratory. The sampling would be conducted in accordance with DER-10 Section 5.4(e). The results will be compared to the Part 375 Commercial Soil Cleanup Objectives (SCOs) and submitted to the NYSDEC for review and approval prior to on-site reuse. No construction and demolition (C&D) debris will be reused on-site. The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site will not be reused on-site.

A-8 FLUIDS MANAGEMENT

All liquids to be removed from the Site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations.

Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the Site, but will be managed off-site.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

A-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the RAWP. The demarcation layer, consisting of orange snow fencing material or equivalent material will be replaced to provide a visual reference to the top of the 'Remaining Contamination Zone', the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this Site Management Plan. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the 'Remaining Contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in any updates to the Site Management Plan.

A-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the Site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the Site. Any fill imported to the site would meet the criteria outlined in 6 NYCRR Part 375. Non-virgin imported material that does not have an approved NYSDEC Beneficial Use Determination will be tested from a segregated stockpile at the originating facility for full list VOCs, SVOCs, pesticides, PCBs, and Target Analyte List (TAL) metals by a New York State-certified laboratory. The sampling should be conducted by an environmental professional in accordance with DER-10 Section 5.4(e). The results will be compared to the appropriate Part 375 SCOs and submitted to the NYSDEC for review and approval prior to importing of the material from a segregated stockpile. No construction and demolition (C&D) debris will be imported to the Site for use as fill.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site. All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards will be the Part 375 SCOs for Restricted Commercial Use. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

A-11 STORMWATER POLLUTION PREVENTION

Based on the size of the Site (0.214 acres), a Storm Water Pollution Prevention Plan (SWPPP) is not required for construction at this Site. Nonetheless, the erosion and sediment controls will be in conformance with requirements presented in the New York State Guidelines for Urban Erosion and Sediment Control.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area, if necessary. Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional. All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are

accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters

A-12 CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition. Any unforeseen USTs, will be removed in accordance with all applicable regulations. Upon discovery of an unknown source of contamination or area of concern that may require remediation (stained soil, drums, etc.), the procedures in this section will be implemented.

- Spill reporting to the NYSDEC Spill Hotline (800-457-7362) will be conducted, as necessary.
- The suspected soil will be sampled for laboratory analyses. Soil samples will be analyzed for parameters required by the intended disposal facility.
- If the suspect soil is contaminated based on sampling results, it will be excavated and removed in accordance with the stockpiling and/or direct-loading procedures presented in Section A-3. Soil intended for off-site disposal will be disposed of in accordance with applicable federal, state and local requirements and tested in accordance with the requirements of the receiving facility. Additional sample analysis may be required by alternative disposal facilities. Additional analysis may be run on existing sample material at the laboratory as long as all holding time and preservation requirements have not been exceeded. If there are exceedances to these requirements or if additional sampling material is required by the laboratory to complete the required analysis, additional samples may be collected.
- The excavated soil will then be disposed of in accordance with all applicable federal, state and local regulations.
- The excavation will continue vertically until no evidence of contamination is noted in the base of the excavation or until groundwater is encountered. The excavation will continue horizontally until no evidence of contamination is noted in the sidewalls of the excavation. Post-excavation endpoint samples

will be collected from the sides and bottom of the excavated area, as required by the NYSDEC. Analytic parameters for post excavation soil samples will be determined based on NYSDEC. If post-excavation samples exceed action levels, then additional excavation will be performed, as warranted.

- Copies of correspondence with disposal facilities concerning classification of materials, testing results, and permits/approvals will be maintained by the project manager and will be submitted to NYSDEC.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for full a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the periodic reports prepared pursuant to Section 5 of the SMP.

A-13 COMMUNITY AIR MONITORING PLAN

Community air monitoring will be conducted during all intrusive Site activities in compliance with the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP). Real-time air monitoring for volatile compounds at the perimeter of the exclusion zone will be performed as described below.

VOC Monitoring

Continuous monitoring for VOCs will be conducted during all soil disturbance/excavation. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background concentrations. VOCs will be monitored continuously at the downwind perimeter of the exclusion zone. Monitoring will be conducted with a photoionization detector (PID) equipped with a 10.6 eV lamp

capable of calculating 15-minute running average concentrations. The following actions will be taken based on organic vapor levels measured:

- If total organic vapor levels exceed 5 ppm above background for the 15-minute average at the exclusion zone perimeter, work activities will be temporarily halted and monitoring continued. If levels readily decrease (per instantaneous readings) below 5 ppm above background, work activities will resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the exclusion zone persist at levels in excess of 5 ppm above background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the hot zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet - is below 5 ppm above background for the 15-minute average.
- If the total organic vapor level is above 25 ppm at the perimeter of the exclusion zone, activities will be shut down.

More frequent intervals of monitoring will be conducted if required as determined by the SSC. All 15-minute readings will be recorded and available for NYSDEC and NYSDOH personnel to review. Instantaneous readings, if any, will also be recorded.

Dust/Particulate Monitoring

A Dust Trak® dust monitor or equivalent will be used to measure concentration of total particulate matter during field activities. Continuous monitoring will be conducted during all soil excavation/disturbance. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background concentrations. VOCs will be monitored continuously at the downwind perimeter of the exclusion zone.

The action levels developed for the Site are based upon 15-minute averages of the monitoring data. The measurements will be made as close to the workers as practicable and at the breathing height of the workers. The initial measurement for the day will be performed before the start of work and will establish the background level for that day.

The final measurement for the day will be performed after the end of work. The work zone action levels and required responses are listed in the following table:

Work Zone Action Levels and Required Responses

Action Level	Response Action
Less than 5 µg/m^3	**Level D**
Between 5 µg/m^3 and 125 µg/m^3	**Level C.** Apply dust suppression measures. If less than 2.5 µg/m^3, resume work using Level D. Otherwise, upgrade Level C.
Above 125 µg/m^3	**Stop work.** Apply additional dust suppression measures. Resume work when less than 125µµg/m^3 and maintain Level C.

If, after implementation of dust suppression techniques, downwind particulate levels are greater than 125 µg/m^3 above the background (upwind level), work shall be reevaluated and changes initiated to reduce particulate levels and to prevent visible dust migration, including work stoppage if necessary.

In addition, fugitive dust migration to the nearby community should be visually assessed during all work activities as follows:

- If the downwind particulate level is 100 µg/m^3 greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind particulate levels do not exceed 150 mg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind particulate levels are greater than 150 µg/m^3 above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind particulate concentration to within 150 µg/m^3 of the upwind level and in preventing visible dust migration.

The action levels and required responses for protection of the nearby community are summarized in the following table:

Action Levels and Required Responses for Protection of the Nearby Community

Action Level	Response Action
Between 100 mg/m^3 and 100 mg/m^3 greater than background	Apply dust suppression measures. If less than 100 mg/m^3 above background, resume work using Level D. Otherwise, upgrade Level C.
Great than 150 mg/m^3 above background levels	**Stop work.** Apply additional dust suppression measures. Resume work when less than 150 mg/m^3 above background levels.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

A-14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-Site. Based on the results of the previous investigations (including the Remedial Investigation) conducted at the Site, nuisance odors are not expected to be a problem at the Site. Should nuisance odors be detected and noted extending beyond the perimeter of the work area, an odor control plan will be developed and implemented in coordination with the NYSDEC. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

A-15 DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved though the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

APPENDIX B

METES AND BOUNDS

As to Lot 11

All that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at the southwesterly corner of 3rd Avenue and East 136th Street;

RUNNING THENCE westerly along the southerly side of East 136th Street, 100 feet (tax map) (99.92 deed);

THENCE southerly parallel with the westerly side of 3rd Avenue, 93.03 feet;

THENCE easterly parallel with the southerly side of East 136th Street, 100 feet (tax map) (99.92 feet deed) to the westerly side of 3rd Avenue;

THENCE northerly along the westerly side of 3rd Avenue, 93.57 feet to the corner, the point or place of BEGINNING.

As to Lots 7, 8, 9 and 10

All that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at a point on the southerly line of East 136th Street (50 feet wide) said point of beginning being 50.00 feet easterly from the intersection of said line of East 136th Street with the easterly line of Rider Avenue (50 feet wide), and running from said point of beginning;

THENCE along the southerly line of East 136th Street, South 74 degrees 23 minutes 10 seconds East, a distance of 100.08 feet to a point;

THENCE along the dividing line between Lot 10 and 11, Block 2320, South 15 degrees 36 minutes 50 seconds West, a distance of 93.03 feet to a point on the northerly line of Major Deegan Expressway (a/k/a Major William F. Deegan Boulevard, Harlem River Terrace and East 135th Street, 169 feet wide);

THENCE along said line of Major Deegan Expressway, North 74 degrees 04

minutes 50 seconds West, a distance of 100.08 feet to a point;

THENCE along the dividing line between Lots 7 and 6 Block 2320, North 15 degrees 36 minutes 50 seconds East, a distance of 92.50 feet to the point or place of BEGINNING.

As to Lot 5

All that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at a point where the southerly line of East 136th Street (50 feet wide) is intersected by the easterly line of Rider Avenue (50 feet wide), and running from said point of beginning;

THENCE along said line of East 136th Street, South 74 degrees 23 minutes 10 seconds East, a distance of 25.00 feet to a point;

THENCE along the dividing line between Lots 5 & 7, Block 2320, South 15 degrees 36 minutes 50 seconds West, a distance of 92.37 feet to a point on the northerly line of Major Deegan Expressway (a/k/a Major William F. Deegan Boulevard, Major Deegan Boulevard, Harlem River Terrace and East 135th Street, 169 feet wide);

THENCE along said line of Major Deegan Expressway, North 74 degrees 04 minutes 50 seconds West, a distance of 25.00 feet to a point on the easterly line of Rider Avenue;

THENCE along the easterly line of Rider Avenue, North 15 degrees 36 minutes 50 seconds East, a distance of 92.23 feet to the point or place of BEGINNING.

APPENDIX C

SAMPLE HEALTH AND SAFETY PLAN

2477 Third Avenue Site

BRONX, NEW YORK

Health and Safety Plan

BCP Site No. C203047

AKRF Project Number: 11160

Prepared for:

Jiten, LLC
30 Byrd Avenue
Carle Place, NY 11514

Prepared by:

AKRF, Inc.
440 Park Avenue South, 7th Floor
New York, New York 10016
212-696-0670

JULY 2012

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1.0 INTRODUCTION

The 2477 Third Avenue site (the Site) is identified legally as Tax Block 2320, Lot 11 in the Bronx, New York. Previous investigations of the Site include: a Baseline Acquisition Assessment Report (Delta Environmental Consultants, Inc., October 2002); two Phase I Environmental Site Assessments (AKRF, Inc., October 2007 and January 2009); two soil and groundwater investigations (Advanced Site Restoration, LLC, Inc., December 2007 and September 2008); a Limited Subsurface (Phase II) Investigation (AKRF, Inc., February 2009); and A Remedial Investigation (AKRF, Inc., August 2010). These investigations were designed to identify potential on-site and off-site sources of contamination and delineate soil, soil vapor, and groundwater contamination at the Site.

The field observations and analytical data from the previous investigations indicated that hydrocarbon contamination exists in soil, soil vapor and groundwater at the Site. Volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides and metals were detected in soil and groundwater samples at concentrations that exceed the applicable New York State Department of Environmental Conservation (NYSDEC) Soil Cleanup Objectives (SCOs). Gasoline-related hydrocarbons [including benzene, toluene, ethylbenzene and xylene (BTEX) and methyl tert butyl ether (MTBE)] were detected in soil and groundwater. A plume consisting of gasoline-related hydrocarbons was identified migrating southeast from the former gasoline station. Regulatory records identified three 4,000-gallon gasoline underground storage tanks, one 4,000-gallon diesel underground storage tank (UST) and three 12,000-gallon gasoline underground storage tanks (USTs) at the Site. These tanks were registered as closed and removed. An additional four 550-gallon USTs and one 1,200-gallon UST were identified during the remedial actions conducted. An active gasoline spill (NYSDEC Spill #02-30034) exists for Site.

Remedial work at the Site was managed under the oversight of the NYSDEC and New York State Department of Health (NYSDOH) under Site No. C203047. This Health and Safety Plan (HASP) addresses the health and safety practices that will be employed by workers participating in investigation and remediation activities at the Site by AKRF, Inc. (AKRF), construction personnel, and any other personnel authorized to be on-site. The HASP takes into account the specific hazards inherent to the Site, and presents procedures to be followed by AKRF, construction personnel, subcontractors, and all Site visitors in order to avoid and, if necessary, protect against health and/or safety hazards. Activities performed under this HASP will comply with applicable parts of OSHA Regulations, primarily 29 CFR Parts 1910 and 1926. A copy this HASP will be maintained on-site for the duration of remedial work.

All workers who may participate in activities at the Site that are under the direction of AKRF are required to comply with the provisions specified in this HASP. All site visitors who enter designated work zones must also comply with this HASP. Refusal or failure to comply with the HASP or violation of any safety procedures by field personnel and/or subcontractors performing work covered by this HASP may result in immediate removal from the Site following consultation with the NYSDEC and/or NYSDOH.

2.0 HEALTH AND SAFETY GUIDELINES AND PROCEDURES

2.1 Hazard Evaluation

2.1.1 Hazards of Concern

Check all that apply		
(X) Organic Chemicals	(X) Inorganic Chemicals	( ) Radiological
( ) Biological	(X) Explosive/Flammable	( ) Oxygen Deficient Atm.
(X) Heat Stress	(X) Cold Stress	( ) Carbon Monoxide
Comments: No personnel are permitted to enter permit confined spaces.		

2.1.2 Physical Characteristics

Check all that apply		
(X) Liquid	(X) Solid	( ) Sludge
(X) Vapors	( ) Unknown	( ) Other
Comments:		

2.1.3 Hazardous Materials

Check all that apply					
Chemicals	**Solids**	**Sludges**	**Solvents**	**Oils**	**Other**
( ) Acids	( ) Ash	( ) Paints	( ) Halogens	( ) Transformer	( ) Lab
( ) Caustics	( )Asbestos	( ) Metals	(X) Petroleum	( ) Other DF	( ) Pharm
(X) Pesticides	( ) Tailings	( ) POTW	( ) Other Organic Solvents	(X) Motor or Hydraulic Oil	( ) Hospital
(X)Petroleum	(X) Other	( ) Other		(X) Gasoline	( ) Rad
( ) Inks	Fill material			(X) Fuel Oil	( ) MGP
(X) PCBs					( ) Mold
(X) Metals					( ) Cyanide
(X)Other: SVOCs					

1.1.1 Chemicals of Concern

Chemicals	REL/PEL/STEL (ppm)	Health Hazards
Benzene	REL = 0.1 ppm PEL = 1 ppm STEL = 5 ppm	Irritation eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude, dermatitis; bone marrow depression, potential occupational carcinogen.
Chloroform	REL = 2 ppm [60-minute] PEL = 50 ppm	Irritation eyes, skin; dizziness, mental dullness, nausea, confusion; headache, lassitude (weakness, exhaustion); anesthesia; enlarged liver; potential carcinogen.
Heptachlor (pesticide)	REL = 0.5 mg/m^3 PEL = 0.5 mg/m^3 [skin]	There is no reliable information on health effects in humans. Liver damage, excitability, and decreases in fertility have been observed in animals ingesting heptachlor. The effects are worse when the exposure levels were high or when exposure lasted many weeks.
Ethylbenzene	REL = 100 ppm PEL = 100 ppm	Irritation eyes, skin, mucous membrane; headache; dermatitis; narcosis, coma.
Fuel Oil	REL = 350 mg/m^3 PEL = 400 ppm	Nausea, irritation – eyes, hypertension, headache, light-headedness, loss of appetite, poor coordination; long-term exposure – kidney damage, blood clotting problems; potential carcinogen.
Methyl Tert Butyl Ether (MTBE)	REL = 40 ppm	Headaches, nausea, dizziness, mental confusion, gastrointestinal irritation, liver and kidney damage, and nervous system effects.
Polycyclic Aromatic Hydrocarbons (PAHs)	PEL = 5 mg/m^3	Harmful effects to skin, bodily fluids, and ability to fight disease, reproductive problems; potential carcinogen.
Polychlorinated biphenyls (PCBs)	REL = 0.001 mg/m^3 PEL = 0.5 mg/m^3 [skin]	Irritation eyes; chloracne; liver damage; reproductive effects; potential occupational carcinogen.
Toluene	REL = 100 ppm PEL = 200 ppm STEL = 300 ppm	Irritation eyes, nose; lassitude, confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia; dermatitis; liver, kidney damage.
Xylenes	REL = 100 ppm PEL = 100 ppm	Irritation eyes, skin, nose, throat; dizziness, excitement, drowsiness, poor coordination, staggering gait; corneal vacuolization; anorexia, nausea, vomiting, abdominal pain; dermatitis.
Comments: REL = National Institute for Occupational Safety and Health ("NIOSH") Recommended Exposure Limit PEL = OSHA Permissible Exposure Limit STEL = OSHA Short Term Exposure Limit		

2.1.4 Designated Personnel

AKRF will appoint one of its on-site personnel as the Site Safety Coordinator (SSC). This individual will be responsible for the implementation of the HASP. The SSO will have a 4-year college degree in occupational safety or a related science/engineering field, and experience in implementation of air monitoring and hazardous materials sampling programs. Health and safety training required for the SSC and all field personnel subject to this HASP.

2.2 Training

All personnel who enter the work area while intrusive activities are being performed will have completed a 40-hour training course that meets OSHA requirements of 29 CFR Part 1910,

Occupational Safety and Health Standards. In addition, all personnel will have up-to-date 8-hour refresher training. The training will allow personnel to recognize and understand the potential hazards to health and safety. All field personnel must attend a training program, whose purpose is to:

- Make them aware of the potential hazards they may encounter;
- Provide the knowledge and skills necessary for them to perform the work with minimal risk to health and safety; make them aware of the purpose and limitations of safety equipment; and
- Ensure that they can safely avoid or escape from emergencies.

Each member of the field crew will be instructed in these objectives before he/she goes onto the site. A site safety meeting will be conducted at the start of the project. Additional meetings will be conducted, as necessary, for new personnel working at the site.

2.3 Medical Surveillance Program

All AKRF and subcontractor personnel performing field work involving subsurface disturbance at the site are required to have passed a complete medical surveillance examination in accordance with 29 CFR 1910.120 (f). A physician's medical release for work will be confirmed by the SSC before an employee can begin site activities. The medical release shall consider the type of work to be performed and the required PPE. The medical examination will, at a minimum, be provided annually and upon termination of hazardous waste site work.

2.4 Site Work Zones

During any activities involving subsurface disturbance, the work area must be divided into various zones to prevent the spread of contamination, ensure that proper protective equipment is donned, and provide an area for decontamination.

The Exclusion Zone is defined as the area where exposure to impacted media could be encountered. The Contamination Reduction Zone (CRZ) is the area where decontamination procedures take place and is located next to the Exclusion Zone. The Support Zone is the area where support facilities such as vehicles, fire extinguisher, and first aid supplies are located. The emergency staging area (part of the Support Zone) is the area where all workers on-site would assemble in the event of an emergency. A summary of these areas is provided below. These zones may changed by SSC, depending on that day's activities. All field personnel will be informed of the location of these zones before work begins.

Site Work Zones			
Task	**Exclusion Zone**	**CRZ**	**Support Zone**
Soil Excavation and Test Pits	10 ft from Excavator	15 ft from Excavator	As Needed
In-Site Groundwater Remediation and Well Installation	10 ft from Drill Rig	15 ft from Drill Rig	As Needed

2.5 Air Monitoring

The purpose of the air monitoring program is to identify any exposure of the field personnel to potential environmental hazards in the soil and groundwater. Results of the air monitoring will be used to determine the appropriate response action, if needed.

2.5.1 Work Zone Air Monitoring

An air monitoring program will be implemented during soil/fill excavation/disturbing activities during all excavation/soil disturbance activities. The monitoring is consistent with the types of contaminants identified at the Site and the proposed development plans. The air monitoring is intended to avoid or minimize exposure of the field personnel and the public to potential environmental hazards in the soil during excavation of such soil. Results of this air monitoring times will be used to determine the appropriate response action, if needed. A photoionization detector (PID) will be used to perform the air monitoring and will be calibrated with isobutylene in accordance with the manufacturer's recommendations.

A Dust Trak® dust monitor or equivalent will be used to measure concentration of total particulate matter during excavation activities if subsurface contamination is encountered.

Measurements for particulate and volatile organic compounds will be taken prior to commencement of the work and for at least 1 minute every 60 minutes during the work. The action levels developed for the site are based upon 15-minute averages of the monitoring data. The measurements will be made as close to the workers as practicable and at the breathing height of the workers. The SSC will set up the equipment and confirm that it is working properly. His/her designee may oversee the air measurements during the day. The initial measurement for the day will be performed before the start of work and will establish the background level for that day. The final measurement for the day will be performed after the end of work.

The action levels and required responses are listed in the following table. As indicated, work will be stopped if the PID reads 20 parts per million (ppm) or more. The SSC will inspect the area to determine the source and use appropriate means to abate the vapors. Once PID readings are below 20 ppm, work will resume.

Air Monitoring Action Levels and Required Responses

Instrument	Action Level*	Response Action
Particulate Monitoring	Less than 5 mg/m^3	**Level D**
	Between 5 mg/m^3 and 125 mg/m^3	**Level C.** Apply dust suppression measures. If less than 2.5 mg/m^3, resume work using Level D. Otherwise, upgrade Level C.
	Above 125 mg/m^3	**Stop work.** Apply additional dust suppression measures. Resume work when less than 125 mg/m^3 and maintain Level C.
Volatile Organic Compound Monitoring with PID	Less than 10 ppm in breathing zone.	**Level D or D-Modified** (Requires coveralls and steel toe boots) (As applicable: Chemical resistant gloves, chemical resistant boot covers, Hard hat, safety glasses, face shield, or escape mask)
	Between 10 and 20 ppm	**Level C**. (Requires Full Face or half face respirator, Hooded chemical resistant two piece Tyvek suite or overalls, Chemical resistant inner and outer gloves, Chemical resistant boot covers, Steel toe and shank boots) (As applicable: Hard hat, face shield, or escape mask)
	More than 20 ppm	**Stop work.** Resume work when source of vapors is abated and readings are less than 20 ppm above background
Notes: * 15-minute time-weighted average, parts per million (ppm), milligrams per cubic meter (mg/m^3)		

2.5.2 Community Air Monitoring Plan

Community air monitoring will be conducted during all intrusive site activities in compliance with the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP). Real-time air monitoring for volatile compounds at the perimeter of the exclusion zone will be performed as described below.

VOC Monitoring

Continuous monitoring for VOCs will be conducted during all soil disturbance/excavation. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background concentrations. VOCs will be monitored continuously at the downwind perimeter of the exclusion zone. Monitoring will be conducted with a photoionization detector (PID) equipped with a 10.6 eV lamp capable of calculating 15-minute running average concentrations. The following actions will be taken based on organic vapor levels measured:

- If total organic vapor levels exceed 5 ppm above background for the 15-minute average at the exclusion zone perimeter, work activities will be temporarily halted and monitoring continued. If levels readily decrease (per instantaneous readings)

below 5 ppm above background, work activities will resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the exclusion zone persist at levels in excess of 5 ppm above background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the hot zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less – but in no case less than 20 feet – is below 5 ppm above background for the 15-minute average.
- If the total organic vapor level is above 25 ppm at the perimeter of the exclusion zone, activities will be shut down.

More frequent intervals of monitoring will be conducted if required as determined by the SSC. All 15-minute readings will be recorded and available for NYSDEC and NYSDOH personnel to review. Instantaneous readings, if any, will also be recorded.

Dust/Particulate Monitoring

A Dust Trak® dust monitor or equivalent will be used to measure concentration of total particulate matter during field activities. Continuous monitoring will be conducted during all soil excavation/disturbance. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background concentrations. VOCs will be monitored continuously at the downwind perimeter of the exclusion zone.

The action levels developed for the site are based upon 15-minute averages of the monitoring data. The measurements will be made as close to the workers as practicable and at the breathing height of the workers. The initial measurement for the day will be performed before the start of work and will establish the background level for that day. The final measurement for the day will be performed after the end of work. The work zone action levels and required responses are listed in the following table:

Work Zone Action Levels and Required Responses

Action Level	Response Action
Less than 5 mg/m^3	**Level D**
Between 5 mg/m^3 and 125 mg/m^3	**Level C.** Apply dust suppression measures. If less than 2.5 mg/m^3, resume work using Level D. Otherwise, upgrade Level C.
Above 125 mg/m^3	**Stop work.** Apply additional dust suppression measures. Resume work when less than 125 mg/m^3 and maintain Level C.

If, after implementation of dust suppression techniques, downwind particulate levels are greater than 125 mg/m^3 above the background (upwind level), work shall be reevaluated and changes initiated to reduce particulate levels and to prevent visible dust migration, including work stoppage if necessary.

In addition, fugitive dust migration to the nearby community should be visually assessed during all work activities as follows:

- If the downwind particulate level is 100 mg/m^3 greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind particulate levels do not exceed 150 mg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind particulate levels are greater than 150 mg/m^3above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind particulate concentration to within 150 mg/m^3 of the upwind level and in preventing visible dust migration.

The action levels and required responses for protection of the nearby community are summarized in the following table:

Action Levels and Required Responses for Protection of the Nearby Community

Action Level	Response Action
Between 100 mg/m^3 and 100 mg/m^3 greater than background	Apply dust suppression measures. If less than 100 mg/m^3 above background, resume work using Level D. Otherwise, upgrade Level C.
Great than 150 mg/m^3 above background levels	**Stop work.** Apply additional dust suppression measures. Resume work when less than 150 mg/m^3 above background levels.

Major Vapor Emission Response Plan

Although not anticipated, if any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work site, or half the distance to the nearest residential or commercial property, whichever is less, all work activities must be halted or vapor controls must be implemented.

If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the exclusion zone, then the air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).

If either of the following criteria is exceeded in the 20-Foot Zone, then the Major Vapor Emission Response Plan shall automatically be implemented.

- Sustained organic vapor levels approaching 1 ppm above background for a period of more than 30 minutes, or
- Organic vapor levels greater than 5 ppm above background for any time period.

Upon activation, the following activities shall be undertaken as part of the Major Vapor Emission Response Plan:

- The NYSDEC, NYSDOH, and local police authorities will be immediately contacted by the SSC and advised of the situation;

- Frequent air monitoring will be conducted at 30-minute intervals within the 20-Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Site Health and Safety Officer; and
- All Emergency contacts will go into effect as appropriate.

All readings will be recorded and be available for NYSDEC and NYSDOH personnel to review.

2.5.3 Personal Protection Equipment

The personal protection equipment required for various kinds of site investigation tasks are based on 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response, Appendix B, "General Description and Discussion of the Levels of Protection and Protective Gear."

AKRF field personnel and other site personnel shall wear, at a minimum, Level D personal protective equipment. The protection will be based on the air monitoring described in this section.

Personal Protection Equipment Requirements		
Level of Protection and PPE		**All Tasks**
Level D (X) Steel Toe Shoes (X) Hard Hat (within 25 ft of drill rig/excavator) (X) Work Gloves	(X) Safety Glasses ( ) Face Shield (X) Ear Plugs (within 25 ft of drill rig/excavator) (X) Nitrile Gloves (X) Tyvek for drill operator if NAPL present	Yes
Level C ***(in addition to Level D)*** (X) Half-Face Respirator OR (X) Full Face Respirator ( ) Full-Face PAPR	( ) Particulate Cartridge ( ) Organic Cartridge (X) Dual Organic/ Particulate Cartridge	If PID > 10 ppm (breathing zone)
Comments: Cartridges to be changed out at least once per shift unless warranted beforehand (e.g., more difficult to breath or any odors detected).		

2.6 General Work Practices

To protect the health and safety of the field personnel, field personnel will adhere to the guidelines listed below during activities involving subsurface disturbance:

- Eating, drinking, chewing gum or tobacco, and smoking are prohibited, except in designated areas on the site. These areas will be designated by the SSC.
- Workers must wash their hands thoroughly on leaving the work area and before eating, drinking, or any other such activity.

- The workers should shower as soon as possible after leaving the site. Contact with contaminated or suspected surfaces should be avoided.
- The buddy system should always be used; each buddy should watch for signs of fatigue, exposure, and heat/cold stress.

3.0 EMERGENCY PROCEDURES AND EMERGENCY RESPONSE PLAN

The field crew will be equipped with emergency equipment, such as a first aid kit and disposable eye washes. In the case of a medical emergency, the SSC will determine the nature of the emergency and he/she will have someone call for an ambulance, if needed. If the nature of the injury is not serious, i.e., the person can be moved without expert emergency medical personnel, he/she should be driven to the Lincoln Medical and Mental Health Center by on-site personnel. Directions to the hospital are provided below, and a hospital route map is attached.

3.1 Hospital Directions

Hospital Name	Lincoln Medical and Mental Health Center
Phone Number	718-579-5000
Address/Location	234 East 149th Street – Bronx, New York (East 149th Street between Morris Avenue and Park Avenue)
Directions	Go EAST (RIGHT) on East 136th Street LEFT onto Lincoln Avenue Lincoln Avenue merges with Morris Avenue LEFT onto East 149th Street The hospital will be on the left

3.2 Emergency Contacts

Company	Individual Name	Title	Contact Number
AKRF	Michelle Lapin	Project Director and Remediation Engineer	646-388-9520 (office)
	Axel Schwendt	Project Manager	646-388-9529 (office) 917-596-8992 (cell)
	Steve Grens	SSC	914-922-2371 (office) 917-613-6022 (cell)
Jiten LLC	Daniele Cervino	Client Project Manager	973-703-6578 (cell)
New York State Department of Environmental Conservation (NYSDEC)	Ralph Keating	BCP Project Manager	518-402-9774 (office)
New York State Department of Health (NYSDOH)	Thomas Panzone	NYSDOH Project Manager	718-482-4953 (office)
Ambulance, Fire Department & Police Department	-	-	911
NYSDEC Spill Hotline	-	-	800-457-7362

4.0 APPROVAL & ACKNOWLEDGMENTS OF HASP

APPROVAL

Signed: _____ Date: _____

AKRF Project Manager

Signed: _____ Date: _____

AKRF Health and Safety Officer

Below is an affidavit that must be signed by all workers who enter the site. A copy of the HASP must be on-site at all times and will be kept by the SSO.

AFFIDAVIT

I,_____(name), of_____(company name), have read the Health and Safety Plan (HASP) for the 2477 Third Avenue site in the Bronx, New York. I agree to conduct all on-site work in accordance with the requirements set forth in this HASP and understand that failure to comply with this HASP could lead to my removal from the site.

Signed: _____ Company: _____ Date: _____
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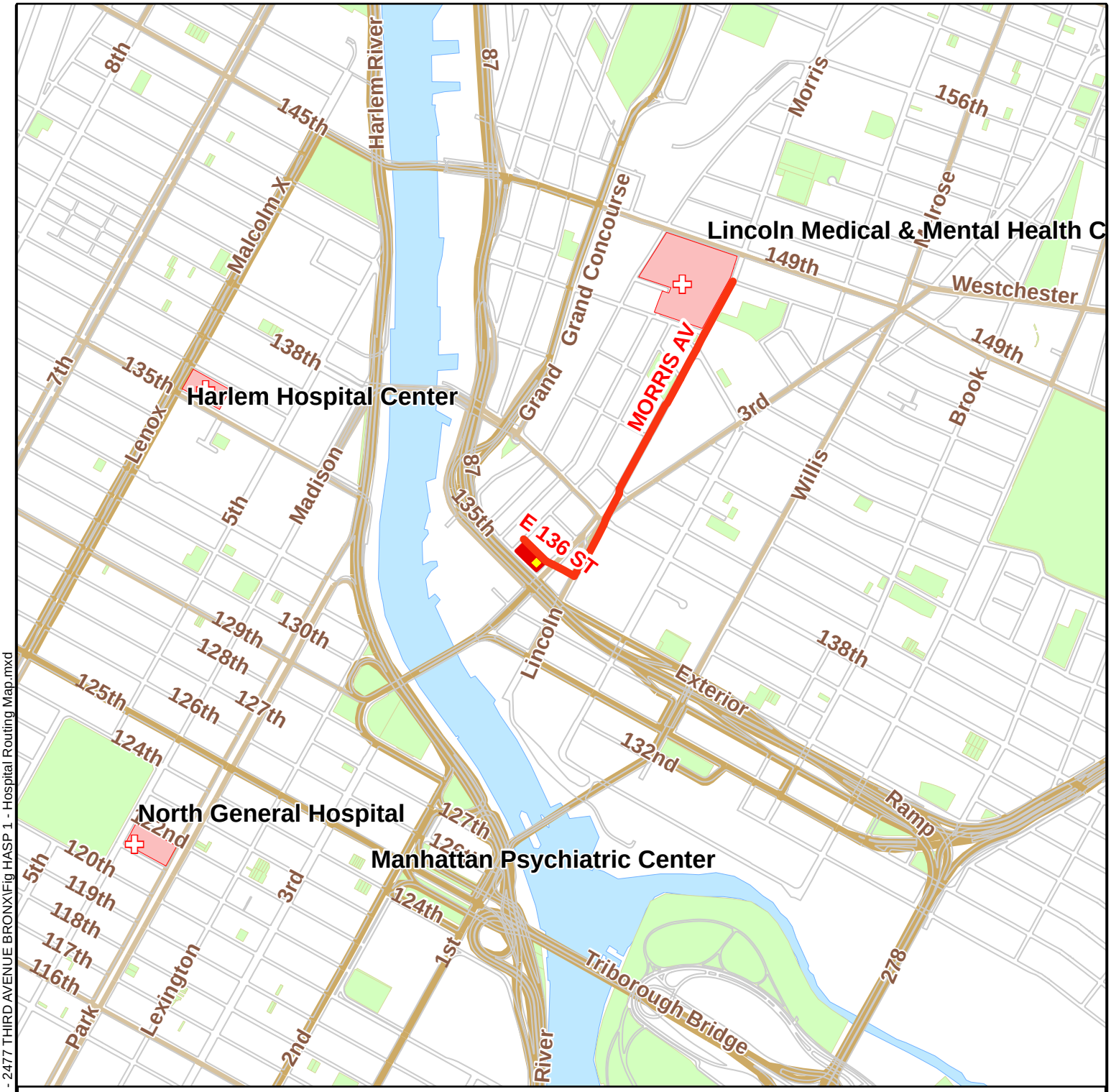
FIGURES



Lincoln Medical and Mental Health Center
234 East 149th Street
Bronx, New York 10451
Tel. (718) 579-5000

0 0.5 Miles

2477 THIRD AVENUE
BRONX, NEW YORK

HOSPITAL LOCATION MAP

AKRF
Environmental Consultants
440 Park Avenue South, New York, N.Y. 10016

DATE
3.03.09

PROJECT No.
11160-005

FIGURE
HASP - 1

ATTACHMENT A

POTENTIAL HEALTH EFFECTS FROM ON-SITE CONTAMINANTS

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

XYLENE
CAS # 1330-20-7

This fact sheet answers the most frequently asked health questions (FAQs) about xylene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

SUMMARY: Exposure to xylene occurs in the workplace and when you use paint, gasoline, paint thinners and other products that contain it. People who breathe high levels may have dizziness, confusion, and a change in their sense of balance. This substance has been found in at least 658 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What is xylene?

(Pronounced zī′lēn)

Xylene is a colorless, sweet-smelling liquid that catches on fire easily. It occurs naturally in petroleum and coal tar and is formed during forest fires. You can smell xylene in air at 0.08–3.7 parts of xylene per million parts of air (ppm) and begin to taste it in water at 0.53–1.8 ppm.

Chemical industries produce xylene from petroleum. It's one of the top 30 chemicals produced in the United States in terms of volume.

Xylene is used as a solvent and in the printing, rubber, and leather industries. It is also used as a cleaning agent, a thinner for paint, and in paints and varnishes. It is found in small amounts in airplane fuel and gasoline.

What happens to xylene when it enters the environment?

- Xylene has been found in waste sites and landfills when discarded as used solvent, or in varnish, paint, or paint thinners.
- It evaporates quickly from the soil and surface water into the air.
- In the air, it is broken down by sunlight into other less harmful chemicals.
- It is broken down by microorganisms in soil and water.
- Only a small amount of it builds up in fish, shellfish, plants, and animals living in xylene-contaminated water.

How might I be exposed to xylene?

- Breathing xylene in workplace air or in automobile exhaust.
- Breathing contaminated air.
- Touching gasoline, paint, paint removers, varnish, shellac, and rust preventatives that contain it.
- Breathing cigarette smoke that has small amounts of xylene in it.
- Drinking contaminated water or breathing air near waste sites and landfills that contain xylene.
- The amount of xylene in food is likely to be low.

How can xylene affect my health?

Xylene affects the brain. High levels from exposure for short periods (14 days or less) or long periods (more than 1 year) can cause headaches, lack of muscle coordination, dizziness, confusion, and changes in one's sense of balance. Exposure of

people to high levels of xylene for short periods can also cause irritation of the skin, eyes, nose, and throat; difficulty in breathing; problems with the lungs; delayed reaction time; memory difficulties; stomach discomfort; and possibly changes in the liver and kidneys. It can cause unconsciousness and even death at very high levels.

Studies of unborn animals indicate that high concentrations of xylene may cause increased numbers of deaths, and delayed growth and development. In many instances, these same concentrations also cause damage to the mothers. We do not know if xylene harms the unborn child if the mother is exposed to low levels of xylene during pregnancy.

How likely is xylene to cause cancer?

The International Agency for Research on Cancer (IARC) has determined that xylene is not classifiable as to its carcinogenicity in humans.

Human and animal studies have not shown xylene to be carcinogenic, but these studies are not conclusive and do not provide enough information to conclude that xylene does not cause cancer.

Is there a medical test to show whether I've been exposed to xylene?

Laboratory tests can detect xylene or its breakdown products in exhaled air, blood, or urine. There is a high degree of agreement between the levels of exposure to xylene and the levels of xylene breakdown products in the urine. However, a urine sample must be provided very soon after exposure ends because xylene quickly leaves the body. These tests are not routinely available at your doctor's office.

Has the federal government made recommendations to protect human health?

The EPA has set a limit of 10 ppm of xylene in drinking water.

The EPA requires that spills or accidental releases of xylenes into the environment of 1,000 pounds or more must be reported.

The Occupational Safety and Health Administration (OSHA) has set a maximum level of 100 ppm xylene in workplace air for an 8-hour workday, 40-hour workweek.

The National Institute for Occupational Safety and Health (NIOSH) and the American Conference of Governmental Industrial Hygienists (ACGIH) also recommend exposure limits of 100 ppm in workplace air.

NIOSH has recommended that 900 ppm of xylene be considered immediately dangerous to life or health. This is the exposure level of a chemical that is likely to cause permanent health problems or death.

Glossary

Evaporate: To change from a liquid into a vapor or a gas.

Carcinogenic: Having the ability to cause cancer.

CAS: Chemical Abstracts Service.

ppm: Parts per million.

Solvent: A liquid that can dissolve other substances.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for xylenes (update). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone:1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

TOLUENE
CAS # 108-88-3

Division of Toxicology ToxFAQs™ **February 2001**

This fact sheet answers the most frequently asked health questions (FAQs) about toluene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to toluene occurs from breathing contaminated workplace air, in automobile exhaust, some consumer products paints, paint thinners, fingernail polish, lacquers, and adhesives. Toluene affects the nervous system. Toluene has been found at 959 of the 1,591 National Priority List sites identified by the Environmental Protection Agency

What is toluene?

Toluene is a clear, colorless liquid with a distinctive smell. Toluene occurs naturally in crude oil and in the tolu tree. It is also produced in the process of making gasoline and other fuels from crude oil and making coke from coal.

Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes.

What happens to toluene when it enters the environment?

❑ Toluene enters the environment when you use materials that contain it. It can also enter surface water and groundwater from spills of solvents and petrolieum products as well as from leasking underground storage tanks at gasoline stations and other facilities.

❑ When toluene-containing products are placed in landfills or waste disposal sites, the toluene can enter the soil or water near the waste site.

❑ Toluene does not usually stay in the environment long.

❑ Toluene does not concentrate or buildup to high levels in animals.

How might I be exposed to toluene?

❑ Breathing contaminated workplace air or automobile exhaust.

❑ Working with gasoline, kerosene, heating oil, paints, and lacquers.

❑ Drinking contaminated well-water.

❑ Living near uncontrolled hazardous waste sites containing toluene products.

How can toluene affect my health?

Toluene may affect the nervous system. Low to moderate levles can cause tiredness, confusion, weakness, drunken-type actions, memory loss, nausea, loss of appetite, and

hearing and color vision loss. These symptoms usually disappear when exposure is stopped.

Inhaling High levels of toluene in a short time can make you feel light-headed, dizzy, or sleepy. It can also cause unconsciousness, and even death.

High levels of toluene may affect your kidneys.

How likely is toluene to cause cancer?

Studies in humans and animals generally indicate that toluene does not cause cancer.

The EPA has determined that the carcinogenicity of toluene can not be classified.

How can toluene affect children?

It is likely that health effects seen in children exposed to toluene will be similar to the effects seen in adults. Some studies in animals suggest that babies may be more sensitive than adults.

Breathing very high levels of toluene during pregnancy can result in children with birth defects and retard mental abilities, and growth. We do not know if toluene harms the unborn child if the mother is exposed to low levels of toluene during pregnancy.

How can families reduce the risk of exposure to toluene?

❑ Use toluene-containing products in well-ventilated areas.

❑ When not in use, toluene-containing products should be tightly covered to prevent evaporation into the air.

Is there a medical test to show whether I've been exposed to toluene?

There are tests to measure the level of toluene or its breakdown products in exhaled air, urine, and blood. To determine if you have been exposed to toluene, your urine or blood must be checked within 12 hours of exposure. Several other chemicals are also changed into the same breakdown products as toluene, so some of these tests are not specific for toluene.

Has the federal government made recommendations to protect human health?

EPA has set a limit of 1 milligram per liter of drinking water (1 mg/L).

Discharges, releases, or spills of more than 1,000 pounds of toluene must be reported to the National Response Center.

The Occupational Safety and Health Administration has set a limit of 200 parts toluene per million of workplace air (200 ppm).

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2000. Toxicological Profile for Toluene. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is http://www.atsdr.cdc.gov/toxfaq.html . ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

Agency for Toxic Substances and Disease Registry ToxFAQs **September 1996**

This fact sheet answers the most frequently asked health questions (FAQs) about polycyclic aromatic hydrocarbons (PAHs). For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

SUMMARY: Exposure to polycyclic aromatic hydrocarbons usually occurs by breathing air contaminated by wild fires or coal tar, or by eating foods that have been grilled. PAHs have been found in at least 600 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What are polycyclic aromatic hydrocarbons?

(Pronounced pŏl′ĭ-sī′klĭk ăr′ə-măt′ĭk hī′drə-kar′bənz)

Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found as a mixture containing two or more of these compounds, such as soot.

Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids. PAHs are found in coal tar, crude oil, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides.

What happens to PAHs when they enter the environment?

- PAHs enter the air mostly as releases from volcanoes, forest fires, burning coal, and automobile exhaust.
- PAHs can occur in air attached to dust particles.
- Some PAH particles can readily evaporate into the air from soil or surface waters.
- PAHs can break down by reacting with sunlight and other chemicals in the air, over a period of days to weeks.
- PAHs enter water through discharges from industrial and wastewater treatment plants.
- Most PAHs do not dissolve easily in water. They stick to solid particles and settle to the bottoms of lakes or rivers.
- Microorganisms can break down PAHs in soil or water after a period of weeks to months.
- In soils, PAHs are most likely to stick tightly to particles; certain PAHs move through soil to contaminate underground water.
- PAH contents of plants and animals may be much higher than PAH contents of soil or water in which they live.

How might I be exposed to PAHs?

- Breathing air containing PAHs in the workplace of coking, coal-tar, and asphalt production plants; smokehouses; and municipal trash incineration facilities.
- Breathing air containing PAHs from cigarette smoke, wood smoke, vehicle exhausts, asphalt roads, or agricultural burn smoke.
- Coming in contact with air, water, or soil near hazardous waste sites.
- Eating grilled or charred meats; contaminated cereals, flour, bread, vegetables, fruits, meats; and processed or pickled foods.
- Drinking contaminated water or cow's milk.

- Nursing infants of mothers living near hazardous waste sites may be exposed to PAHs through their mother's milk.

How can PAHs affect my health?

Mice that were fed high levels of one PAH during pregnancy had difficulty reproducing and so did their offspring. These offspring also had higher rates of birth defects and lower body weights. It is not known whether these effects occur in people.

Animal studies have also shown that PAHs can cause harmful effects on the skin, body fluids, and ability to fight disease after both short- and long-term exposure. But these effects have not been seen in people.

How likely are PAHs to cause cancer?

The Department of Health and Human Services (DHHS) has determined that some PAHs may reasonably be expected to be carcinogens.

Some people who have breathed or touched mixtures of PAHs and other chemicals for long periods of time have developed cancer. Some PAHs have caused cancer in laboratory animals when they breathed air containing them (lung cancer), ingested them in food (stomach cancer), or had them applied to their skin (skin cancer).

Is there a medical test to show whether I've been exposed to PAHs?

In the body, PAHs are changed into chemicals that can attach to substances within the body. There are special tests that can detect PAHs attached to these substances in body tissues or blood. However, these tests cannot tell whether any health effects will occur or find out the extent or source of your exposure to the PAHs. The tests aren't usually available in your doctor's office because special equipment is needed to conduct them.

Has the federal government made recommendations to protect human health?

The Occupational Safety and Health Administration (OSHA) has set a limit of 0.2 milligrams of PAHs per cubic meter of air (0.2 mg/m^3). The OSHA Permissible Exposure Limit (PEL) for mineral oil mist that contains PAHs is 5 mg/m^3 averaged over an 8-hour exposure period.

The National Institute for Occupational Safety and Health (NIOSH) recommends that the average workplace air levels for coal tar products not exceed 0.1 mg/m^3 for a 10-hour workday, within a 40-hour workweek. There are other limits for workplace exposure for things that contain PAHs, such as coal, coal tar, and mineral oil.

Glossary

Carcinogen: A substance that can cause cancer.

Ingest: Take food or drink into your body.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for polycyclic aromatic hydrocarbons. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

ETHYLBENZENE
CAS # 100-41-4

Agency for Toxic Substances and Disease Registry ToxFAQs **June 1999**

This fact sheet answers the most frequently asked health questions (FAQs) about ethylbenzene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Ethylbenzene is a colorless liquid found in a number of products including gasoline and paints. Breathing very high levels can cause dizziness and throat and eye irritation. Ethylbenzene has been found in at least 731 of the 1,467 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What is ethylbenzene?

(Pronounced ĕthʹ əl bĕnʹ zēnʹ)

Ethylbenzene is a colorless, flammable liquid that smells like gasoline. It is found in natural products such as coal tar and petroleum and is also found in manufactured products such as inks, insecticides, and paints.

Ethylbenzene is used primarily to make another chemical, styrene. Other uses include as a solvent, in fuels, and to make other chemicals.

What happens to ethylbenzene when it enters the environment?

- Ethylbenzene moves easily into the air from water and soil.
- It takes about 3 days for ethylbenzene to be broken down in air into other chemicals.
- Ethylbenzene may be released to water from industrial discharges or leaking underground storage tanks.
- In surface water, ethylbenzene breaks down by reacting with other chemicals found naturally in water.
- In soil, it is broken down by soil bacteria.

How might I be exposed to ethylbenzene?

- Breathing air containing ethylbenzene, particularly in areas near factories or highways.
- Drinking contaminated tap water.
- Working in an industry where ethylbenzene is used or made.
- Using products containing it, such as gasoline, carpet glues, varnishes, and paints.

How can ethylbenzene affect my health?

Limited information is available on the effects of ethylbenzene on people's health. The available information shows dizziness, throat and eye irritation, tightening of the chest, and a burning sensation in the eyes of people exposed to high levels of ethylbenzene in air.

Animals studies have shown effects on the nervous system, liver, kidneys, and eyes from breathing ethylbenzene in air.

How likely is ethylbenzene to cause cancer?

The EPA has determined that ethylbenzene is not classifiable as to human carcinogenicity.

ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html

No studies in people have shown that ethylbenzene exposure can result in cancer. Two available animal studies suggest that ethylbenzene may cause tumors.

How can ethylbenzene affect children?

Children may be exposed to ethylbenzene through inhalation of consumer products, including gasoline, paints, inks, pesticides, and carpet glue. We do not know whether children are more sensitive to the effects of ethylbenzene than adults.

It is not known whether ethylbenzene can affect the development of the human fetus. Animal studies have shown that when pregnant animals were exposed to ethylbenzene in air, their babies had an increased number of birth defects.

How can families reduce the risk of exposure to ethylbenzene?

Exposure to ethylbenzene vapors from household products and newly installed carpeting can be minimized by using adequate ventilation.

Household chemicals should be stored out of reach of children to prevent accidental poisoning. Always store household chemicals in their original containers; never store them in containers children would find attractive to eat or drink from, such as old soda bottles. Gasoline should be stored in a gasoline can with a locked cap.

Sometimes older children sniff household chemicals, including ethylbenzene, in an attempt to get high. Talk with your children about the dangers of sniffing chemicals.

Is there a medical test to show whether I've been exposed to ethylbenzene?

Ethylbenzene is found in the blood, urine, breath, and some body tissues of exposed people. The most common way to test for ethylbenzene is in the urine. This test measures substances formed by the breakdown of ethylbenzene. This test needs to be done within a few hours after exposure occurs, because the substances leave the body very quickly.

These tests can show you were exposed to ethylbenzene, but cannot predict the kind of health effects that might occur.

Has the federal government made recommendations to protect human health?

The EPA has set a maximum contaminant level of 0.7 milligrams of ethylbenzene per liter of drinking water (0.7 mg/L).

The EPA requires that spills or accidental releases into the environment of 1,000 pounds or more of ethylbenzene be reported to the EPA.

The Occupational Safety and Health Administration (OSHA) has set an occupational exposure limit of 100 parts of ethylbenzene per million parts of air (100 ppm) for an 8-hour workday, 40-hour workweek.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1999. Toxicological profile for ethylbenzene. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

BENZENE
CAS # 71-43-2

This fact sheet answers the most frequently asked health questions (FAQs) about benzene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Benzene is a widely used chemical formed from both natural processes and human activities. Breathing benzene can cause drowsiness, dizziness, and unconsciousness; long-term benzene exposure causes effects on the bone marrow and can cause anemia and leukemia. Benzene has been found in at least 813 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What is benzene?

(Pronounced bĕn′zēn′)

Benzene is a colorless liquid with a sweet odor. It evaporates into the air very quickly and dissolves slightly in water. It is highly flammable and is formed from both natural processes and human activities.

Benzene is widely used in the United States; it ranks in the top 20 chemicals for production volume. Some industries use benzene to make other chemicals which are used to make plastics, resins, and nylon and synthetic fibers. Benzene is also used to make some types of rubbers, lubricants, dyes, detergents, drugs, and pesticides. Natural sources of benzene include volcanoes and forest fires. Benzene is also a natural part of crude oil, gasoline, and cigarette smoke.

What happens to benzene when it enters the environment?

- Industrial processes are the main source of benzene in the environment.
- Benzene can pass into the air from water and soil.
- It reacts with other chemicals in the air and breaks down within a few days.
- Benzene in the air can attach to rain or snow and be carried back down to the ground.
- It breaks down more slowly in water and soil, and can pass through the soil into underground water.
- Benzene does not build up in plants or animals.

How might I be exposed to benzene?

- Outdoor air contains low levels of benzene from tobacco smoke, automobile service stations, exhaust from motor vehicles, and industrial emissions.
- Indoor air generally contains higher levels of benzene from products that contain it such as glues, paints, furniture wax, and detergents.
- Air around hazardous waste sites or gas stations will contain higher levels of benzene.
- Leakage from underground storage tanks or from hazardous waste sites containing benzene can result in benzene contamination of well water.
- People working in industries that make or use benzene may be exposed to the highest levels of it.
- A major source of benzene exposures is tobacco smoke.

How can benzene affect my health?

Breathing very high levels of benzene can result in death, while high levels can cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion, and unconsciousness. Eating or drinking foods containing high levels of benzene can cause vomiting, irritation of the stomach, dizziness, sleepiness, convulsions, rapid heart rate, and death.

ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html

The major effect of benzene from long-term (365 days or longer) exposure is on the blood. Benzene causes harmful effects on the bone marrow and can cause a decrease in red blood cells leading to anemia. It can also cause excessive bleeding and can affect the immune system, increasing the chance for infection.

Some women who breathed high levels of benzene for many months had irregular menstrual periods and a decrease in the size of their ovaries. It is not known whether benzene exposure affects the developing fetus in pregnant women or fertility in men.

Animal studies have shown low birth weights, delayed bone formation, and bone marrow damage when pregnant animals breathed benzene.

How likely is benzene to cause cancer?

The Department of Health and Human Services (DHHS) has determined that benzene is a known human carcinogen. Long-term exposure to high levels of benzene in the air can cause leukemia, cancer of the blood-forming organs.

Is there a medical test to show whether I've been exposed to benzene?

Several tests can show if you have been exposed to benzene. There is test for measuring benzene in the breath; this test must be done shortly after exposure. Benzene can also be measured in the blood, however, since benzene disappears rapidly from the blood, measurements are accurate only for recent exposures.

In the body, benzene is converted to products called metabolites. Certain metabolites can be measured in the urine. However, this test must be done shortly after exposure and is not a reliable indicator of how much benzene you have been exposed to, since the metabolites may be present in urine from other sources.

Has the federal government made recommendations to protect human health?

The EPA has set the maximum permissible level of benzene in drinking water at 0.005 milligrams per liter (0.005 mgL). The EPA requires that spills or accidental releases into the environment of 10 pounds or more of benzene be reported to the EPA.

The Occupational Safety and Health Administration (OSHA) has set a permissible exposure limit of 1 part of benzene per million parts of air (1 ppm) in the workplace during an 8-hour workday, 40-hour workweek.

Glossary

Anemia: A decreased ability of the blood to transport oxygen.

Carcinogen: A substance with the ability to cause cancer.

CAS: Chemical Abstracts Service.

Chromosomes: Parts of the cells responsible for the development of hereditary characteristics.

Metabolites: Breakdown products of chemicals.

Milligram (mg): One thousandth of a gram.

Pesticide: A substance that kills pests.

References

This ToxFAQs information is taken from the 1997 Toxicological Profile for Benzene (update) produced by the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Public Health Service in Atlanta, GA.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

ATTACHMENT B

WEST NILE VIRUS/ST. LOUIS ENCEPHALITIS PREVENTION

WEST NILE VIRUS/ST. LOUIS ENCEPHALITIS PREVENTION

The following section is based upon information provided by the CDC Division of Vector-Borne Infectious Diseases. Symptoms of West Nile Virus include fever, headache, and body aches, occasionally with skin rash and swollen lymph glands, with most infections being mild. More severe infection may be marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis, and, rarely, death. Most infections of St. Louis encephalitis are mild without apparent symptoms other than fever with headache. More severe infection is marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, occasional convulsions (especially infants) and spastic (but rarely flaccid) paralysis. The only way to avoid infection of West Nile Virus and St. Louis encephalitis is to avoid mosquito bites. To reduce the chance of mosquito contact:

- Stay indoors at dawn, dusk, and in the early evening.
- Wear long-sleeved shirts and long pants whenever you are outdoors.
- Spray clothing with repellents containing permethrin or DEET (N, N-diethyl-meta-toluamide), since mosquitoes may bite through thin clothing.
- Apply insect repellent sparingly to exposed skin. An effective repellent will contain 35% DEET. DEET in high concentrations (greater than 35%) provides no additional protection.
- Repellents may irritate the eyes and mouth.
- Whenever you use an insecticide or insect repellent, be sure to read and follow the manufacturer's directions for use, as printed on the product.

ATTACHMENT C

REPORT FORMS

WEEKLY SAFETY REPORT FORM

Week Ending: _____ Project Name/Number: _____

Report Date: _____ Project Manager Name: _____

Summary of any violations of procedures occurring that week:

_____

_____

_____

Summary of any job related injuries, illnesses, or near misses that week:

_____

_____

_____

_____

Summary of air monitoring data that week (include and sample analyses, action levels exceeded, and actions taken):

_____

_____

_____

Comments:

_____

_____

_____

Name: _____ Company: _____

Signature: _____ Title: _____

INCIDENT REPORT FORM

Date of Report: _____

Injured: _____

Employer: _____

Site: _____ Site Location: _____

Report Prepared By: _____ _____
Signature Title

ACCIDENT/INCIDENT CATEGORY (check all that applies)

___Injury	___ Illness	___ Near Miss
__ Property Damage	___ Fire	___ Chemical Exposure
__ On-site Equipment	___ Motor Vehicle	___ Electrical
__ Mechanical	___ Spill	___ Other

DATE AND TIME OF ACCIDENT/INCIDENT: Narrative report of Accident/Incident: Identify: 1) actions leading to or contributing to the accident/incident; 2) the accident/incident occurrence; and 3) actions following the accident/incident.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

WITNESS TO ACCIDENT/INCIDENT:

Name:	_____	Company:	_____
Address:	_____	Address:	_____
Phone No.:	_____	Phone No.:	_____
Name:	_____	Company:	_____
Address:	_____	Address:	_____
Phone No.:	_____	Phone No.:	_____

INJURED - ILL:

Name: _____ SSN: _____

Address: _____ Age: _____

Length of Service: _____ Time on Present Job: _____

Time/Classification: _____

SEVERITY OF INJURY OR ILLNESS:

____ Disabling ___ Non-disabling ___ Fatality

____ Medical Treatment ___ First Aid Only

ESTIMATED NUMBER OF DAYS AWAY FROM JOB: _____

NATURE OF INJURY OR ILLNESS: _____

_____

_____

_____

CLASSIFICATION OF INJURY:

__ Abrasions _____ Dislocations ____ Punctures

__ Bites _____ Faint/Dizziness ____ Radiation Burns

__ Blisters _____ Fractures ____ Respiratory Allergy

__ Bruises _____ Frostbite ____ Sprains

__ Chemical Burns _____ Heat Burns ____ Toxic Resp. Exposure

__ Cold Exposure _____ Heat Exhaustion ____ Toxic Ingestion

__ Concussion _____ Heat Stroke ____ Dermal Allergy

__ Lacerations

Part of Body Affected: _____

Degree of Disability: _____

Date Medical Care was Received: _____

Where Medical Care was Received: _____

Address (if off-site): _____

(If two or more injuries, record on separate sheets)

PROPERTY DAMAGE:

Description of Damage: _____

_____

Cost of Damage: $ _____

ACCIDENT/INCIDENT LOCATION: _____

ACCIDENT/INCIDENT ANALYSIS: Causative agent most directly related to accident/incident (Object, substance, material, machinery, equipment, conditions)

_____

_____

_____

_____

Was weather a factor?:_____

_____

Unsafe mechanical/physical/environmental condition at time of accident/incident (Be specific):

_____

_____

_____

Personal factors (Attitude, knowledge or skill, reaction time, fatigue):

_____

_____

ON-SITE ACCIDENTS/INCIDENTS:

Level of personal protection equipment required in Site Safety Plan:

_____

_____

Modifications:

_____

Was injured using required equipment?:

_____

_____

If not, how did actual equipment use differ from plan?:

_____

_____

ACTION TAKEN TO PREVENT RECURRENCE: (Be specific. What has or will be done? When will it be done? Who is the responsible party to insure that the correction is made?

_____

_____

_____

_____

_____

ACCIDENT/INCIDENT REPORT REVIEWED BY:

_____ _____

SSO Name Printed SSO Signature

OTHERS PARTICIPATING IN INVESTIGATION:

_____ _____

Signature Title

_____ _____

Signature Title

_____ _____

Signature Title

ACCIDENT/INCIDENT FOLLOW-UP: Date: _____

Outcome of accident/incident: _____

_____

_____

_____

Physician's recommendations: _____

_____

_____

_____

Date injured returned to work: _____

Follow-up performed by:

_____ _____

Signature Title

ATTACH ANY ADDITIONAL INFORMATION TO THIS FORM

ATTACHMENT D

EMERGENCY HAND SIGNALS

EMERGENCY SIGNALS

In most cases, field personnel will carry portable radios for communication. If this is the case, a transmission that indicates an emergency will take priority over all other transmissions. All other site radios will yield the frequency to the emergency transmissions.

Where radio communications is not available, the following air-horn and/or hand signals will be used:

EMERGENCY HAND SIGNALS

OUT OF AIR, CAN'T BREATH!

Hand gripping throat

LEAVE AREA IMMEDIATELY, NO DEBATE!

(No Picture) Grip partner's wrist or place both hands around waist

NEED ASSISTANCE!

Hands on top of head

OKAY! – I'M ALL RIGHT!

- I UNDERSTAND!

Thumbs up

NO! - NEGATIVE!

Thumbs down

APPENDIX D

MONITORING WELL SAMPLING LOGS

BCP Site No. C203047

Example Low-flow Well Sampling Log

Job No:	**Client: Jiten LLC**	**Well No:**
Project Location: 2477 Third Avenue, Bronx, New York	**Sampled By:**	
Date:	**Sampling Time:**	
LEL at surface:		
PID at surface:		
Total Depth: ft. below top of casing	**Water Column (WC):** feet	*= 0.163 * WC for 2" wells
Depth to Water: ft. below top of casing	**Well Volume*:** 0.00 gallons	*= 0.653 * WC for 4" wells
Depth to Product: ft. below top of casing	**Volume Purged:** gallons	*= 1.469 * WC for 6" wells
Depth to top of screen: ft. below top of casing	**Well Diam.:** 2 inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ft. below top of casing	**Purging Device (pump type):**	
Approx. Pump Intake: ft. below top of casing	QED Sample Pro Bladder Pump	

Time	**Depth to Water** (Ft.)	**Purge Rate** (ml/min)	**Temp** (^{o}C)	**Conductivity** (mS/cm)	**DO** (mg/L)	**pH**	**ORP** (mV)	**Turbidity** (NTU)	**Comments** (problems, odor, sheen)
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for:

APPENDIX E

SITE CAP INSPECTION FORM

Site Cover Inspection Form
2477 Third Avenue, Bronx, New York
BCP Site No. C203047

Inspector: _____

Date: _____

1. Landscaped areas:

Adequate soil cover present?

Signs of erosion?

Recommended corrective action:

2. Outdoor paving/sidewalks:

Note any signs of cracking or other damage:

Note any areas where greater than 25% of surface is cracked/damaged:

Recommended corrective action:

Comments (attach photos/sketches to illustrate any damage noted): _____

APPENDIX F

QUALITY ASSURANCE PROJECT PLAN

2477 Third Avenue Site

BRONX, NEW YORK

Quality Assurance Project Plan

BCP Site No. C203047

AKRF Project Number: 11160

Prepared for:

Jiten, LLC
30 Byrd Avenue
Carle Place, NY 11514

Prepared by:

AKRF, Inc.
440 Park Avenue South, 7th Floor
New York, New York 10016
212-696-0670

JULY 2012

TABLE OF CONTENTS

TABLES

ATTACHMENTS

1.0 INTRODUCTION

This Quality Assurance Project Plan (QAPP) describes the protocols and procedures that will be followed during implementation of the Remedial Action Work Plan (RAWP) at the 2477 Third Avenue site. The legal definition of the subject property is Tax Block 2320, old Lot 11. The objective of the QAPP is to provide for Quality Assurance (QA) and maintain Quality Control (QC) of remedial activities conducted. Adherence to the QAPP will ensure that defensible data will be obtained during the investigation and remediation.

2.0 PROJECT TEAM

The project team will be drawn from AKRF professional and technical personnel and AKRF's subcontractors. All field personnel and subcontractors will have completed a 40-hour training course and updated 8-hour refresher course that meet the Occupational Safety and Health Administration (OSHA) requirements of 29 CFR Part 1910. The following sections describe the key project personnel and their responsibilities.

2.1 PROJECT DIRECTOR

The project director will be responsible for the general oversight of all aspects of the project, including scheduling, budgeting, data management and decision-making regarding the field program. The project director will communicate regularly with all members of the AKRF project team, the New York State Department of Environmental Conservation (NYSDEC), and to ensure a smooth flow of information between involved parties. Michelle Lapin will serve as the project director for the RAWP. Ms. Lapin's resume is included in Attachment A.

2.2 PROJECT MANAGER

The project manager will be responsible for directing and coordinating all elements of the RAWP. He will prepare reports and participate in meetings with Jiten LLC and/or the NYSDEC. Axel Schwendt will serve as the project manager for the RAWP. Mr. Schwendt's resume is included in Attachment A.

2.3 FIELD TEAM LEADER

The field team leader will be responsible for supervising the daily sampling and health and safety activities in the field and will ensure adherence to the work plan and HASP. He will report to the Project Manager on a regular basis regarding daily progress and any deviations from the work plan. The field team leader will be a qualified, responsible person, able to act professionally and promptly during soil disturbing activities. Steve Grens will be the field team leader for the RAWP.

2.4 PROJECT QUALITY ASSURANCE/QUALITY CONTROL OFFICER

The Quality Assurance/Quality Control (QA/QC) Officer will be responsible for adherence to the QAPP. She will review the procedures with all personnel prior to commencing any fieldwork to assess implementation of the procedures. Michelle Lapin will serve as the QA/QC officer for the RAWP.

2.5 LABORATORY QUALITY ASSURANCE/QUALITY CONTROL OFFICER

The laboratory QA/QC officer will be responsible for quality control procedures and checks in the laboratory and ensuring adherence to laboratory protocols. She will track the movement of samples from the time they are checked in at the laboratory to the time that analytical results are

issued. She will conduct a final check on the analytical calculations and sign off on the laboratory reports. The laboratory QA/QC officer will be Gina Bartolomeo of Alpha Analytical Laboratories of Westborough, Massachusetts.

3.0 STANDARD OPERATING PROCEDURES

The following sections describe the standard operating procedures (SOPs) for the remedial activities included in the RAWP. During these operations, safety monitoring will be performed as described in the project Health and Safety Plan (HASP) and all field personnel will wear appropriate personal protective equipment.

3.1 SOIL SAMPLING

Soil sampling will be conducted as necessary in the event that contamination is discovered at the Site during construction excavation or test pit activities, and when the Contingency Plan described in AKRF's September 2010 RAWP is implemented. Soil sampling would be conducted to insure the complete removal of contaminated soil and would be executed in consultation with the NYSDEC. Soil may also be sampled for waste characterization for off-site disposal. Any soil intended for off-site disposal will be tested in accordance with the requirements of the intended receiving facility and in accordance with AKRF's September 2010 RAWP.

The soil samples designated for analysis will be collected into laboratory-supplied containers, sealed and labeled, and placed in an ice-filled cooler. The samples will be analyzed in a in a New York State Department of Health Environmental Laboratory Approval Program (NYSDOH-ELAP) laboratory in accordance with NYSDEC requirements. Any sampling equipment will be decontaminated in accordance with Section 3.4 of this QAPP.

3.2 GROUNDWATER MONITORING WELL INSTALLATION AND DEVELOPMENT

New post-remediation monitoring well installation will include four wells screened across the water table as detailed in the RAWP. New well locations and/or screen depths may be adjusted based on observations and data compiled during the RAWP.

The wells will be constructed with two-inch diameter PVC. Ten feet of 0.02 slotted PVC screen will be installed. The road box will be sealed with a concrete collar to prevent water run-off into the well. The well will be completed according to the following procedure:

- Install No. 2 sand filter pack around the well screen to a depth of one to two feet above the top of the screen.
- Install a bentonite seal to a depth of one to two feet above the filter pack.
- Backfill the remainder of the annular space using a bentonite-cement grout.
- Cut the exterior casing below grade surface.
- Complete the well with a locking cap and flush-to-grade manhole (road box) set in concrete. Seal the road box with a concrete collar to prevent water run-off into the well.
- Decontaminate the augers prior to and following installation of each well as described in Section 3.4 of this QAPP.
- Document well installation data (location, depth, construction details, water level measurements) in the field logbook or on field data sheets.

- Following well installation, the new and existing wells will be developed according to the following procedure:

    1. Measure the depth to water using an oil/water interface probe and the total depth of the well using a weighted tape. Use these measurements to calculate the length of the water column. Calculate the volume of water in the well using 0.163 volumes per foot of water column (gallons) as the conversion factors for a 2-inch diameter well.
    2. For the first five minutes of well development, develop the well using a submersible pump and re-circulate the water back into the well to create maximum agitation. This method is intended to remove fines from the sand pack, the adjacent formation and from the well.
    3. After the first five minutes of well development, develop the well using a submersible pump and discharge the water to five-gallon buckets. Transfer water from the buckets to 55-gallon drums designated for well development water.
    4. During development, collect periodic samples and analyze for turbidity and water quality indicators (pH, temperature, dissolved oxygen, reduction-oxidation potential, and specific conductivity) with measurements collected approximately every five minutes.
    5. Continue developing the well until turbidity is less than 50 nephelometric turbidity units (NTUs) for three successive readings and until water quality indicators have stabilized to within 10% for pH, temperature and specific conductivity for three successive readings, or until three well volumes have been purged from the well.
    6. Document the volume of water removed and any other observations made during well development in the field logbook or on field data sheets.
    7. Decontaminate the equipment prior to and following development at each well location as described in Section 3.4 of this QAPP. All well development water, decontamination, and purge water will be containerized in 55-gallon drums and handled as described in Section 3.5 of this QAPP.

Monitoring wells will not be sampled until at least two weeks following initial development. Prior to collecting any samples, each well will be screened for the presence of VOCs using a photoionization detector (PID) after removing the well cap. The depth to groundwater will then be measured in the wells using an electronic oil/water interface probe attached to a measuring tape accurate to 0.01 feet. The water level data, well diameter and depth will be used to calculate the volume of water in each well. Any floating or sinking free-phase product will be documented, if present. The wells that do not contain free-phase product will then be purged using low-flow purging techniques and sampled as described in Section 4.2.

3.3 SURVEYING AND WATER TABLE READINGS

New groundwater monitoring wells will be surveyed by a New York State-licensed surveyor. Two elevation measurements will be taken at each well location; the elevation of the flush-to-grade road box and the elevation of the top of PVC casing.

Water table readings will be taken in the groundwater monitoring wells using an oil/water interface probe. The gate boxes will be unlocked and opened at each well location. The oil/water interface probe will be turned on and sound tested. The probe of the meter will be inserted into the PVC casing. The probe will be lowered down the casing until the meter alarm indicates the

probe is at the water table. A reading of the depth from the top of the top of the PVC casing to the groundwater table will be recorded in the field notebook.

3.4 DECONTAMINATION OF SAMPLING EQUIPMENT

All sampling equipment (augers, drilling rods, split spoon samplers, probe rods and pumps, etc.) will be either dedicated or decontaminated between sampling locations. The decontamination procedure will be as follows:

1. Scrub using tap water/Simple Green® mixture and bristle brush.
2. Rinse with tap water.
3. Scrub again with tap water/ Simple Green® and bristle brush.
4. Rinse with tap water.
5. Rinse with distilled water.
6. Air-dry the equipment, if possible.

Decontamination will be conducted on plastic sheeting (or equivalent) that is bermed to prevent discharge to the ground.

3.5 MANAGEMENT OF INVESTIGATION DERIVED WASTE

Any investigation-derived waste (IDW) (i.e., development water or purge water) will be containerized in DOT-approved 55-gallon drums stored in a secured location on concrete within the fenced property boundary. The drums will be sealed at the end of each work day and labeled with the date, the well or boring number(s), the type of waste and the name of an AKRF point-of-contact. All IDW will be disposed of or treated according to applicable local, state and federal regulations.

4.0 SAMPLING AND LABORATORY PROCEDURES

4.1 SOIL SAMPLING

Depending upon conditions encountered during construction and monitoring of the Site, soil sampling may be required. Soil sampling will be conducted according to the following procedures:

- Characterize the sample according to the modified Burmister soil classification system.
- Collect an aliquot of soil from each sampling location and place in labeled sealable plastic bags. The bag should be labeled with the soil boring number and the depth the sample was collected. Place the plastic bags in a chilled cooler to await selection of samples for laboratory analysis.
- After selecting which samples will be analyzed in the laboratory, fill the required laboratory-supplied sample jars with the soil from the selected sampling location or labeled sealable plastic bags. Seal and label the sample jars as described in Section 4.5 of this QAPP and place in an ice-filled cooler.
- Decontaminate any soil sampling equipment between sample locations as described in Section 3.4 of this QAPP.

- Record boring number, sample depth and sample observations (evidence of contamination, PID readings, soil classification) in field log book and boring log data sheet, if applicable.

4.2 MONITORING WELL SAMPLING

Groundwater samples will be collected using low flow sampling techniques, as described in U.S. EPA's Ground-Water Sampling Guidelines for Superfund and RCRA Project Managers [EPA 542-S-02-001, May 2002]. No new wells will be sampled before they are allowed to stabilize for at least two weeks. Sampling will be conducted according to the following procedure:

- Prepare the sampling area by placing plastic sheeting over the well. Cut a hole in the sheeting to provide access to the well cover.
- Slowly remove the locking cap and immediately measure the vapor concentrations in the well with a PID calibrated to the manufacturer's specifications.
- Measure the depth to water and total well depth, and check for the presence of floating non-aqueous phase liquid (NAPL) using an oil/water interface probe. Measure the thickness of NAPL, if any, and record in field book and well log. Collect a sample of NAPL using a disposable plastic weighted bailer or similar collection device. Groundwater samples will not be collected from wells containing measurable NAPL; however, we will collect a sample of the product for fingerprint analysis.
- Use the water level and total well depth measurements to calculate the length of the mid-point of the water column within the screened interval. For example, for a well where the total depth is 20 feet, screened interval is 10 to 20 feet, and depth to water is 14 feet, the mid-point of the water column within the screened interval would be 17 feet.
- Connect dedicated tubing to either a submersible or bladder pump and lower the pump such that the intake of the pump is set at the mid-point of the water column within the screened interval of the well. Connect the discharge end of the tubing to the flow-through cell of a multi-parameter meter. Connect tubing to the output of the cell and place the discharge end of the tubing in a five-gallon bucket.
- Activate the pump at the lowest flow rate setting of the pump.
- Measure the depth to water within the well. The pump flow rate may be increased such that the water level measurements do not change by more than 0.3 feet as compared to the initial static reading. The well-purging rate should be adjusted so as to produce a smooth, constant (laminar) flow rate and so as not to produce excessive turbulence in the well. The expected targeted purge rate will be approximately 0.5 liters and will be no greater than 3.8 liters/minute.
- Transfer discharged water from the 5-gallon buckets to 55-gallon drums designated for well-purge water.
- During purging, collect periodic samples and analyze for water quality indicators (e.g., turbidity, pH, temperature, dissolved oxygen, reduction-oxidation potential, and specific conductivity) with measurements collected approximately every five minutes.
- Continue purging the well until turbidity is less than 50 NTU and water quality indicators have stabilized to the extent practicable. The criteria for stabilization will be three successive readings for the following parameters and criteria:

Table 1
Stabilization Criteria

Parameter	Stabilization Criteria
PH	+/- 0.1 pH units
Specific Conductance	+/- 3% mS/cm
ORP/Eh	+/- 10mV
Turbidity	<50 NTU
Dissolved Oxygen	+/- 0.3 mg/l

Notes: mS/cm = millisievert per centimeter
mV = millivolts
NTU = nephelometric turbidity units
mg/l = milligrams per liter

- If the water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, purging may be discontinued. Efforts to stabilize the water quality for the well must be recorded in the field book, and samples may then be collected as described herein.
- After purging, disconnect the tubing to the inlet of the flow-through cell. Collect groundwater samples directly from the discharge end of the tubing and place into the required sample containers as described in Section 4.3 of this QAPP. Label the containers as described in Section 4.5 of this QAPP and place in a chilled cooler.
- Collect one final field sample and analyze for turbidity and water quality parameters (pH, temperature, dissolved oxygen, reduction-oxidation potential, and specific conductivity).
- Once sampling is complete, remove the pump and tubing from the well. Disconnect the tubing and place it back in the well for reuse during the next sampling event. Dispose of the sample filter in a 55-gallon drum designated for disposable sampling materials and PPE. The purge water will be managed as described in Section 3.5 of this QAPP.
- Decontaminate the pump, oil/water interface probe, and flow-through cell, as described in Section 3.4 of this QAPP.
- Record all measurements (depth to water, depth to NAPL, water quality parameters, turbidity), calculations (well volume) and observations in the project logbook and field data sheet, if applicable.

Groundwater samples will be placed directly into laboratory-supplied sample bottles. The samples will be analyzed in a laboratory for volatile organic compounds (VOCs) using EPA Method 8260 and semi-volatile organic compounds (SVOCs) using EPA Method 8270 to confirm the effects of the in-situ remediation on the petroleum contamination at the Site.

4.3 LABORATORY METHODS

The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods. Table 2 summarizes the laboratory methods that will be used, and could potentially be used, to analyze field samples and the sample container type, preservation, and applicable holding times.

Table 2
Laboratory Analytical Methods for Analysis Groups

Matrix	Analysis	EPA Method	Bottle Type	Preservative	Hold Time
Soil	TCL VOCs	8260	2 oz. clear glass w/ septa top	4 ºC	14 days
	TCL SVOCs	8270	Glass 4 oz. Jar	4 ºC	7 days
	TCL Metals	6010	Glass 4 oz. Jar	4 ºC	180 days
	Pesticides	8081	Glass 4 oz. Jar	4 ºC	7 days
	PCBs	8082	Glass 4 oz. Jar	4 ºC	7 days
Groundwater	TCL VOCs	8260	40 mL glass vial, septa top	4 ºC, HCL	14 days
	TCL SVOCs	8270	Glass 1L Bottle - TFE cap	4 ºC	7 days
	TCL Metals (total and dissolved)	6010B/7470A/7471A	Plastic 500 ml Bottle	4 ºC	180 days/ Hg 28 days
	Pesticides	8081	Glass 1L Bottle – TFE cap	4 ºC	7 days
	PCBs	8082	Glass 1L Bottle – TFE cap	4 ºC	7 days

4.4 QUALITY CONTROL SAMPLING

In addition to the laboratory analysis of any soil and groundwater samples, additional analysis will be included for quality control measures. These samples will include field blanks and trip blanks at a frequency of one sample per 20 field samples collected. The field blanks will be analyzed for all target analytes selected, which would be in consultation with the NYSDEC. The trip blanks will be analyzed for VOCs only.

4.5 SAMPLE HANDLING

4.5.1 Sample Identification

All samples will be consistently identified in all field documentation, chain-of-custody documents and laboratory reports using an alpha-numeric code. Groundwater samples will be identified by the monitoring well number, and soil samples will be identified with the sample depth interval (in parenthesis). Soil samples will be labeled with the depth interval and its location carefully measured and logged in the field book. Trip blanks and field blanks will be identified with "TB" and "FB", respectively.

Table 3 provides examples of the sampling identification scheme.

Table 3
Examples of Sample Names

Sample Description	Sample Designation
Soil sample collected from 5 to 7 feet in an excavation	SS-1 (5-7)
Groundwater sample collected from monitoring well MW-206	MW-206
Field Blank sample for groundwater sampling	FB/GW-1

4.5.2 Sample Labeling and Shipping

All sample containers will be provided with labels containing the following information:

- Project identification

- Sample identification
- Date and time of collection
- Analysis(es) to be performed
- Sampler's initials

Once samples are collected and labeled, they will be placed in chilled coolers and stored in a cool area away from direct sunlight to await shipment to the laboratory. All samples will be shipped to the laboratory twice per week. At the start and end of each workday, field personnel will add ice to the coolers as needed.

The samples will be prepared for shipment by placing each sample in a sealable plastic bag, then wrapping each container in bubble wrap to prevent breakage, adding freezer packs and/or fresh ice in sealable plastic bags and the chain-of-custody (COC) form. Samples will be shipped overnight (e.g., Federal Express) or transported by a laboratory courier. All coolers shipped to the laboratory will be sealed with mailing tape and a COC seal to ensure that the coolers remain sealed during delivery.

4.5.3 Sample Custody

Field personnel will be responsible for maintaining the sample coolers in a secured location until they are picked up and/or sent to the laboratory. The record of possession of samples from the time they are obtained in the field to the time they are delivered to the laboratory or shipped off-site will be documented on chain-of-custody (COC) forms. The COC forms will contain the following information: project name; names of sampling personnel; sample number; date and time of collection and matrix; and signatures of individuals involved in sample transfer, and the dates and times of transfers. Laboratory personnel will note the condition of the custody seal and sample containers at sample check-in.

4.6 FIELD INSTRUMENTATION

Field personnel will be trained in the proper operation of all field instruments at the start of the field program. Instruction manuals for the equipment will be on file at the site for referencing proper operation, maintenance and calibration procedures. The equipment will be calibrated according to manufacturer specifications at the start of each day of fieldwork, if applicable. If an instrument fails calibration, the project manager or QA/QC officer will be contacted immediately to obtain a replacement instrument. A calibration log will be maintained to record the date of each calibration, any failure to calibrate and corrective actions taken. The PID will be calibrated each day using 100 parts per million (ppm) isobutylene standard gas.

ATTACHMENT A

RESUME OF PROJECT QA/QC OFFICER, PROJECT DIRECTOR, AND PROJECT MANAGER

MICHELLE LAPIN, P.E.

SENIOR VICE PRESIDENT

Michelle Lapin is a Senior Vice President with more than 20 years of experience in the assessment and remediation of hazardous waste issues. She leads the firm's Hazardous Materials group and offers extensive experience providing strategic planning and management for clients. Ms. Lapin has been responsible for the administration of technical solutions to contaminated soil, groundwater, air and geotechnical problems. Her other duties have included technical and report review, proposal writing, scheduling, budgeting, and acting as liaison between clients and regulatory agencies, and project coordination with federal, state, and local authorities.

Ms. Lapin's hydrogeologic experience includes groundwater investigations, and formulation and administration of groundwater monitoring programs in New York, New Jersey, Connecticut, New Hampshire, Massachusetts, Rhode Island, Virginia, and Maryland. Her experience with groundwater contamination includes Level B hazardous waste site investigations; leaking underground storage tank studies, including hazardous soil removal and disposal and associated soil and water issues; soil gas/vapor intrusion surveys; and wetlands issues. Ms. Lapin is experienced in coordinating and monitoring field programs concerning hazardous waste cell closures. She has directed numerous Phase I, Phase II, and Phase III investigations, many of them in conjunction with developers, law firms, lending institutions, and national retail chains. She is also experienced in the cleanup of contaminated properties under Brownfield Cleanup Program (BCP) regulations.

BACKGROUND

Education

M.S., Civil Engineering, Syracuse University, 1985

B.S., Civil Engineering, Clarkson University, 1983

Professional Licenses/Certifications

New York State P.E.

State of Connecticut P.E.

Professional Memberships

Member, American Society of Professional Engineers (ASPE), National and CT Chapters

Member, American Society of Civil Engineers (ASCE), National and CT Chapters

Member, Connecticut Business & Industry Association (CBIA), CBIA Environmental Policies Council

Years of Experience

Year started in company: 1994

Year started in industry: 1986

RELEVANT EXPERIENCE

West 61st Street Rezoning/Residential Development, New York, NY

Ms. Lapin is directing the firm's hazardous materials work for this mixed-use development in Manhattan. AKRF was retained by the Algin Management Co. to prepare an EIS for the proposed rezoning of the western portion of the block between West 60th and 61st Streets, between Amsterdam and West End Avenues. The proposed action

rezoned the western half of the block, thus facilitating the development of two 30-story residential towers with accessory parking spaces, and landscaped open space. The EIS examined a "worst case" condition for rezoning the block, which allowed Algin to build a residential building of approximately 375,000 square feet at their site. The building now contains 475 apartments, 200 accessory parking spaces, a health club, and community facility space. This site, with the services of AKRF, entered into New York State's Brownfield Cleanup Program (BCP). On-site issues included underground storage tanks remaining from previous on-site buildings, petroleum contamination from these tanks and possibly from off-site sources, and other soil contaminants (metals, semi-volatile organic compounds, etc.) from fill materials and previous on-site buildings. AKRF oversaw the adherence to the Construction Health and Safety Plan (HASP), which was submitted to and approved by the NYSDEC, and monitoring the waste streams, to ensure that the different types of waste are being disposed of at the correct receiving facilities. This oversight also included confirmation and characteristic soil sampling for the receiving facilities and NYSDEC. A "Track 1" Clean up of the majority of the property (the portion including the buildings) was completed and the final Engineering Report was approved by the NYSDEC. AKRF is currently completing a smaller portion of the property which includes a tennis court and landscaped areas. The completion schedule is to be the Fall of 2008.

68, 76 and 78 Forest Street and 96-98 Grove Street, Stamford, CT

Ms. Lapin led this project, for which AKRF was retained to complete a Phase I Environmental Site Assessment (ESA) of five residential properties, and asbestos surveys and XRF paint surveys of the five multi-family residential structures prior to a real estate transaction. The investigations were completed to clear the way for demolition of the residential structures and prepare the properties for development into the Highgrove high rise condominium complex. AKRF represented the purchaser and site developer during the due diligence process, identified areas of environmental concern, and completed underground storage tank closure activities prior to initiating site development. In addition, AKRF conducted a Phase I ESA of a property on Summer Street that was being used by the developer as a "temporary" office building and a parking area utilized as a sales center and apartment model for the Highgrove residential development.

Shelton Storage Deluxe, Shelton, CT

AKRF completed Phase I, Phase II and Tank Removal/Remediation services for a proposed storage facility in Shelton, Connecticut. Based on this information from the Phase I ESA, AKRF conducted a Phase II study that revealed groundwater impact (gasoline), possibly from an off-site source. Additional testing was then conducted to determine the source of the gasoline contamination. Testing of a wood block floor revealed concentrations of volatile and semivolatile organic compounds and total petroleum hydrocarbons; therefore, disposal of this material had to be as a petroleum-contaminated waste. The additional testing included upstream and downstream surface water samples, and on-site detention pond water and sediment samples. Subsequent to the Phase II testing, a 4,000-gallon on-site underground storage tank was removed. Upon removal, contaminated soil and groundwater were observed and a spill was called into the CTDEP. Following completion of remedial activities and submission of a closure report, the spill was closed by the CTDEP. Ms. Lapin directed the firm's efforts to complete this project.

Hudson River Park, New York, NY

Ms. Lapin is directing AKRF's hazardous materials work during construction of Hudson River Park, a 5-mile linear park along Manhattan's West Side. As the Hudson River Park Trust's (HRPT's) environmental consultant, AKRF is overseeing preparation and implementation of additional soil and groundwater investigations (working with both NYSDEC and NYCDEP), all health and safety activities, removal of both known underground storage tanks and those encountered during construction. Previously, the firm performed hazardous materials assessments as part of the Environmental Impact Statement (EIS) process, including extensive database and historical research, as well as soil and groundwater investigations. Ms. Lapin has been the senior consultant for the soil and groundwater investigations and remediation, and the asbestos investigations and abatement oversight.

Fiterman Hall Deconstruction and Decontamination Project, New York, NY

The 15-story Fiterman Hall building, located at 30 West Broadway between Barclay and Murray Streets, originally constructed as an office building in the 1950s, had served as an extension of the City University of New York (CUNY) Borough of Manhattan Community College (BMCC) since 1993. The building was severely damaged during the September 11, 2001, attack on the World Trade Center (WTC) when 7 WTC collapsed and struck the south façade of the building, resulting in the partial collapse of the southwest corner of the structure. The building was subsequently stabilized, with breaches closed and major debris removed, however extensive mold and WTC dust contaminants remain within the building, which must be taken down. The project requires the preparation of two EASs for the redevelopment of Fiterman Hall—one for the deconstruction and decontamination of the building and one for the construction of a replacement building on the site. AKRF is currently preparing the EAS for the Deconstruction and Decontamination project, which includes the decontamination of the interior and exterior of the building, the removal and disposal of all building contents, and the deconstruction of the existing, approximately 377,000-gross-square-foot partially collapsed structure. Ms. Lapin was the reviewer for the deconstruction and decontamination plans for the EAS. The cleanup plan is due to be submitted shortly to the U.S. Environmental Protection Agency; once approved, remediation work will begin, followed by the deconstruction and rebuilding of Fiterman.

Brooklyn Bridge Park, Brooklyn, NY

AKRF is preparing an Environmental Impact Statement (EIS) and providing technical and planning support services for Brooklyn Bridge Park, which will revitalize the 1.3-mile stretch of the East River waterfront between Jay Street on the north and Atlantic Avenue on the south. The new park, to be completed by 2010, would allow public access to the water's edge, allowing people to enjoy the spectacular views of the Manhattan skyline and New York Harbor. It would also provide an array of passive and active recreational opportunities, including lawns, pavilions, and a marina. As with many waterfront sites around New York City, the lands along the Brooklyn waterfront have a long history of industrial activities. Some of these industries used dangerous chemicals and generated toxic by-products that could have entered the soil and groundwater. In addition, landfilling activities along the shoreline also made use of ash and other waste materials from industrial processes. Based on site inspections and historical maps, government records, and other sources, AKRF is in the process of investigating the potential for the presence for hazardous materials in the park. This information will be compiled into a Phase 1 Environmental Site Assessment report. AKRF will also provide support to the design team related to designing the project to minimize costs related to remediating hazardous materials where possible. Ms. Lapin is serving as senior manager for the hazardous materials investigations, including procuring a Beneficial Use Determination (BUD) from the New York State Department of Environmental Conservation (NYSDEC) for the acceptance of fill materials to the site.

Columbia University Manhattanville Academic Mixed-Use Development, New York, NY

Ms. Lapin is serving as Hazardous Materials Task Leader on this Environmental Impact Statement (EIS) for approximately 4 million square feet of new academic, research and neighborhood uses to be constructed north of Columbia University's existing Morningside campus. The work has included Phase I Environmental Site Assessments for the properties within the site boundaries and estimates for upcoming investigation and remediation.

To date, the firm's Hazardous Materials group has performed 30 Phase I Environmental Site Assessments for properties within the development area. In addition, a Preliminary Environmental Site Assessment (PESA) was completed in conjunction with the Environmental Impact Statement (EIS). Based on the Phase I studies, AKRF conducted a subsurface (Phase II) investigation in accordance with an NYCDEP-approved investigative work plan and health and safety plan. The objective of the subsurface investigation was to characterize the subsurface conditions on the property and determine whether past or present on-site and/or off-site potential sources of contamination have adversely affected the study site, and to use the analytical data collected during AKRF's subsurface investigation, to evaluate any potential environmental risks and/or the need for remedial action at the

site prior to future development. Subsurface activities included the advancement of soil borings, groundwater monitor wells, and the collection of soil and groundwater samples for laboratory analysis. This study was used to estimate remediation costs of contaminated soil, groundwater and hazardous building materials, including lead-based paint and asbestos-containing materials.

Albert Einstein College of Medicine Center for Genetic and Translational Medicine, Bronx, NY

Ms. Lapin directed the firm's hazardous materials work in connection with the construction a new Center for Genetics and Translational Medicine (CGTM) building on the Bronx campus of the Albert Einstein College of Medicine of Yeshiva University. The building is expected to be opened by 2006. AKRF prepared an Environmental Assessment Statement (EAS) that examined such issues as land use, zoning, air quality, urban design and visual resources, hazardous materials, traffic, noise, and air quality. Ms. Lapin's work included analysis of the existing conditions and potential impacts that the construction could cause to the environment and human health.

Yonkers Waterfront Redevelopment Project, Yonkers, NY

For this redevelopment along Yonkers Hudson River waterfront, Ms. Lapin headed the remedial investigation and remediation work that included Phase I assessments of 12 parcels, investigations of underground storage tank removals and associated soil remediation, remedial alternatives reports, and remedial work plans for multiple parcels. Several of the city-owned parcels were remediated under a Voluntary Cleanup Agreement; others were administered with state Brownfields grants. Hazardous waste remediation was completed on both brownfield and voluntary clean-up parcels, which enabled construction for mixed-use retail, residential development, and parking.

Davids Island Site Investigations, New Rochelle, NY

Ms. Lapin managed the hazardous materials investigation of Davids Island, the largest undeveloped island on the Long Island Sound in Westchester County. The 80-acre island features pre- and post-Civil War military buildings and parade grounds, and is viewed as a major heritage, tourism, and recreational amenity. The island, formerly known as Fort Slocum, was used by the U.S. military, beginning in the 19th century, as an Army base, hospital, and training center. The island was planned for county park purposes. The investigation included a Phase I site assessment, with historical research going back to the 17th century, a Phase II subsurface investigation, underground storage tank investigations, and asbestos surveys of all remaining structures. Cost estimates were submitted to Westchester County for soil remediation, asbestos abatement, and building demolition.

Site Selection and Installation of 11 Turbine Generators, New York and Long Island, NY

AKRF was retained by the New York Power Authority (NYPA) to assist in the State Environmental Quality Review Act (SEQRA) review of the proposed siting, construction, and operation of 11 single-cycle gas turbine generators in the New York metropolitan area. Ms. Lapin managed the hazardous materials investigation of the sites. The work has included Phase I site assessments, subsurface investigations, and construction health and safety plans.

Cross Westchester (I-287) Expressway Phases V and VI, Westchester County, NY

For the New York State Department of Transportation (NYSDOT), Ms. Lapin served as Project Manager and was responsible for directing the contaminated materials aspect of the final design effort for the reconstruction of Westchester County's major east-west artery. As part of her duties, Ms. Lapin was responsible for managing the asbestos investigations at eight bridges and wetland delineation along the entire corridor, as well as writing the scope of work and general management of the project.

Supermarket Redevelopment, New Fairfield, CT

AKRF provided consulting services to the developer and owner of a 9-acre site included conducting a remedial investigation and remediation of a site contaminated from former dry cleaning operations and off-site gasoline

spills. The investigation included the installation of monitoring wells in three distinct aquifers, geophysical logging, pump tests, and associated data analysis. Ms. Lapin presented the environmental issues and planned remediation to local and state officials during the early stages of the planning process to incorporate their comments into the final remedial design. A remedial action work plan (RAWP) was completed and approved by the Connecticut Department of Environmental Protection within a year to enable redevelopment work for a new supermarket and shopping center. The RAWP included the remediation of soil within the source area and a multi-well pump and treat system for the recovery of non-aqueous and dissolved phase contamination in groundwater. The design of the recovery well system included extensive groundwater modeling to ensure capture of the contaminant plume and the appropriate quantity and spacing of the wells. Ms. Lapin directed the soil removal remedial activities and monitoring for additional potential contamination during construction. In addition, AKRF performed comprehensive pre-demolition asbestos and lead-based paint surveys of the former site structures, and provided environmental consulting support for the development of the site. The groundwater remediation system was installed during site development and began operation once development was complete.

Target Stamford, Stamford, CT

AKRF originally completed a Phase I Environmental Site Assessment (ESA) for a developer of this property, located at southeastern corner of Broad Street and Washington Boulevard in downtown Stamford, Connecticut, for a proposed residential development. Four years later, an update of this Phase I ESA was conducted for a proposed Target retail development. The study area included the current Target site and the west-adjacent site currently under construction as a residential building. Following the Phase I report, a subsurface (Phase II) investigation was conducted, which included 21 soil borings, groundwater monitor wells, soil and groundwater sample collection and analysis. The results of the Phase II investigation were used to develop a remediation strategy. An additional Phase I/Phase II investigation was conducted of the adjacent former transmission repair facility, which included a site inspection, review of local and state records, an underground storage tank markout survey, advancement of 12 soil borings, and collection of soil samples for laboratory analysis. AKRF also conducted asbestos surveys prior to abatement and demolition of the former Broad Street and Washington Boulevard buildings.

East 75th/East 76th Street Site, New York, NY

Ms. Lapin served as Senior Manager for this project that encompassed coordination and direct remediation efforts of this former dry cleaning facility and parking garage prior to the sale of the property and its ultimate redevelopment for use as a private school. A preliminary site investigation identified 20 current and former petroleum and solvent tanks on the property. A soil and groundwater testing program was designed and implemented to identify the presence and extent of contamination resulting from potential tank spills. This investigation confirmed the presence of subsurface petroleum contamination in the soil and solvent contamination from former dry cleaning activities in the bedrock. AKRF completed oversight of the remediation under the State's Voluntary Cleanup Program. Remediation, consisting of tank removals and excavation of contaminated soil and the removal of solvent-contaminated bedrock down to 30 feet below grade, has been completed. AKRF completed oversight of the pre-treatment of groundwater prior to discharge to the municipal sewer system and is currently completing an off-site study to determine impacts to groundwater in downgradient locations.

Former Macy's Site, White Plains, NY

Ms. Lapin managed the pre-demolition work for Tishman Speyer. Work included a Phase I site assessment; subsurface investigation (Phase II), including the analysis of soil and groundwater samples for contamination; a comprehensive asbestos, lead paint, and PCB investigation; radon analysis; and coordination and oversight of the removal of hazardous materials left within the building from previous tenants. Work also included asbestos abatement specifications and specifications for the removal of two 10,000-gallon vaulted fuel-oil underground storage tanks.

Storage Deluxe, Various Locations, NY

Ms. Lapin manages the firm's ongoing work with Storage Deluxe, which includes Phase I and Phase II subsurface investigations, underground storage tank removals and associated remediation, asbestos surveys and abatement oversight, and contaminated soil removal and remediation for multiple sites in Connecticut, the Bronx, Brooklyn, Manhattan, Westchester County, and Long Island.

Home Depot, Various Locations, NY

Ms. Lapin, serving as either Project Manager or Senior Manager, has managed the investigations and remediation at multiple Home Depot sites in the five boroughs, Long Island, and Connecticut. The investigations have included Phase I and II site assessments, asbestos and lead paint surveys, abatement specifications and oversight, and soil and groundwater remediation.

Avalon on the Sound, New Rochelle, NY

For Avalon Bay Communities, Ms. Lapin is managing the investigations and remediation of two phases of this residential development, including two luxury residential towers and an associated parking garage. Remediation of the first phase of development (the first residential tower and the parking garage) included gasoline contamination from a former taxi facility, fuel oil contamination from multiple residential underground storage tanks, and chemical contamination from former on-site manufacturing facilities. The remediation and closure of the tank spills was coordinated with the New York State Department of Environmental Conservation (NYSDEC). The initial investigation of the Phase II development—an additional high-rise luxury residential building—detected petroleum contamination. A second investigation was conducted to delineate the extent of the contamination and estimate the costs for remediation. AKRF oversaw the remediation and conducted the Health and Safety Monitoring. The remediation was completed with closure and approvals of the NYSDEC.

Mill Basin, Gerritsen Inlet, and Paerdegat Basin Bridges, Final Design, Shore Parkway, Brooklyn, NY

Following the preparation of the Generic Environmental Impact Statement (GEIS) for the Belt Parkway Bridges Project, the firm was retained for supplemental work during the final design phase of the project. This included NEPA and SEQRA documentation for three of the bridges—Mill Basin, Gerritsen Inlet, and Paerdegat Basin—which will be federally funded. Ms. Lapin managed the contaminated materials investigation that included a detailed subsurface contaminated materials assessment, both subaqueous and along the upland approaches.

NYSDOT Transportation Management Center (TMC), Hawthorne, NY

AKRF conducted environmental studies for the NYSDOT at the current troopers' headquarters in Hawthorne, NY. The property is the proposed site of a new Transportation Management Center. AKRF completed a comprehensive asbestos survey of the on-site building and prepared asbestos abatement specifications; performed a Phase I site assessment; conducted an eletromagnetic (EM) survey that located two fuel oil underground storage tanks, and developed removal specifications for the two underground storage tanks and an aboveground storage tank.

Metro-North Railroad Poughkeepsie Intermodal Station/Parking Improvement Project, Poughkeepsie, NY

Ms. Lapin served as Project Manager of the hazardous materials investigation in connection with AKRF's provision of planning and environmental services for parking improvement projects at this station along the Hudson Line. The project included an approximately 600-space garage, additional surface parking, and an intermodal station to facilitate bus, taxi, and kiss-and-ride movements. Ms. Lapin conducted Phase I and II contaminated materials assessments and worked with the archaeologists to locate an historical roundhouse/turntable.

Metro-North Railroad Golden's Bridge Station Parking Project, Westchester County, New York

For Metro-North Railroad, Ms. Lapin managed a Phase I Environmental Site Assessment of a property that has since become the new parking area, used by the existing Golden's Bridge train station. Ms. Lapin also conducted a subsurface (Phase II) investigation of the original parking area, track area, and existing platform for the potential impact of moving tracks in the siding area to extend the existing parking area and adding an access from a proposed overhead walkway (connecting the train station to the new parking area). The study also included an assessment for lead-based paint and asbestos on the platform structures.

East River Science Park, New York, NY

Originally, New York University School of Medicine (NYUSOM) retained the firm to prepare a full Environmental Impact Statement (EIS) for its proposed East River Science Park (ERSP). The proposed complex was to occupy an underutilized portion of the Bellevue Hospital campus between East 30th Street and approximately East 28th Street, immediately south of NYU's campus. Phase I was to consist of 618,000 square feet of development, including a clinical practice and research building, a biotech center, 220 housing units for post-doctorate staff, a child care center, and a conference center. This phase would include reuse of the former Bellevue Psychiatric Building, an historic structure on 30th Street east of First Avenue. Phase II would see development of a second biotech building with a library to serve NYU and Bellevue at the eastern end of the block between 29th and 30th Streets. Phase III would follow with a third biotech building and parking.

The EIS for the project considered a full range of issues, including land use, socioeconomics, shadows, historic resources, open space, traffic and transportation, air quality, noise, and construction. The firm also prepared all of the traffic and transportation studies for the urban design and master planning efforts. Ms. Lapin managed the Phase I Environmental Site Assessment and other hazardous materials-related issues. Events relating to September 11, 2001 put a hold on the project for a number of years. When it resurfaced, a new developer stepped in and the scope of the project decreased. Ms. Lapin updated the hazardous materials issues for the new developer and consulted with them regarding remediation strategies and involvement of regulatory agencies. For the actual remediation/development, the city requested oversight by AKRF to represent their own interests (the city is retaining ownership of the land). Ms. Lapin is currently directing the remediation oversight on behalf of the City of New York for the remediation of this former psychiatric hospital building, laundry building and parking areas associated with Bellevue Hospital. The new development includes a biotechnology center (Commercial Life Science Research and Office Park) comprising two buildings (combined 550,000 square feet), street level retail, and an elevated plaza.

Roosevelt Union Free School District – District-wide Improvement Program, Roosevelt, NY

Ms. Lapin managed the hazardous materials investigation for the Draft and Final Environmental Impact Statements for the improvement program, which included the demolition of three existing elementary schools and portions of the junior-senior high school, and the reconstruction of three replacement elementary schools, a separate replacement middle school, and renovations to the high school. Following the EIS, additional hazardous materials investigations were completed, including comprehensive asbestos and lead surveys; Phase I and Phase II Environmental Site Assessments; preparing asbestos, lead, hazardous materials and demolition specifications; and obtaining site-specific variances from the New York State Department of Labor (NYSDOL). AKRF continues to provide asbestos and lead project monitoring and air monitoring, and environmental remediation oversight. The middle school remediation was conducted through coordination with the NYSDEC, NYSDOH, the New York State Education Department and the local school district. The project was approved and construction/renovation for the new middle school is complete. The school will be open for the Fall 2008 semester as planned. AKRF continues to provide oversight for ongoing abatement at a number of the schools, and overall environmental consulting to the school district. AKRF continues to provide asbestos and lead project monitoring and air monitoring, and environmental remediation oversight during the program's demolition and construction phases.

AXEL E. SCHWENDT, P.G.

PROFESSIONAL GEOLOGIST

Mr. Schwendt is a senior professional geologist for AKRF and has 11 years of experience in the environmental consulting field. Mr. Schwendt has extensive experience in Phase II activities involving subsurface soil and groundwater investigations, and has been involved in all aspects of soil and groundwater remediation, including those related to manufactured gas plants (MGP). He has managed and implemented large-scale site investigations and remedial measures for various properties under different regulatory programs including the New York State Department of Environmental Conservation's (NYSDEC) Voluntary Cleanup Program, New Jersey's Industrial Site Recovery Act (ISRA), and Pennsylvania's Land Recycling program. Mr. Schwendt also conducts and manages Phase I Environmental Site Assessments for various clients from a variety of industries.

In addition, Mr. Schwendt has extensive experience in underground and aboveground storage tank (UST) management, including UST removals, installations, and upgrades. He has designed and implemented remedial investigations surrounding UST releases and overseen the installation and maintenance of pump-and-treat remedial systems. He has performed storage tank compliance audits and maintenance inspections all across the country and prepared Spill Prevention, Control, and Countermeasures Plans (SPCC Plans) for over 90 individual facilities, including personnel training programs.

Mr. Schwendt worked with several other firms prior to joining AKRF, which provided him with a variety of skills. He has expertise with Environmental Emergency Response Plans, Integrated Contingency Plans, Phase I Environmental Site Assessments, and multi-phase compliance audits, including some international projects. He has also performed various types of hydrogeologic testing, including pilot tests, slug tests, pump tests and groundwater modeling, and has been responsible for data review and management.

BACKGROUND

Education

B.A., Earth Science and Environmental Studies, Tulane University, 1991

M.S., Geology, University of Delaware, 2002

Years of Experience

Year started in company: 2002

Year started in industry: 1995

RELEVANT EXPERIENCE

Lincoln Center Development Project, New York, NY

On behalf of the Lincoln Center Development Project, Inc., Mr. Schwendt conducted a Subsurface (Phase II) Investigation in the area of an underground storage tank (UST) farm located beneath the lower garage level of the West 62nd Street parking garage at Lincoln Center. The Phase II study was prompted by a request from the New York State Department of Environmental Conservation (NYSDEC) to properly close out the tanks. The tank farm includes seventeen (17) 550-gallon gasoline USTs and one (1) 550-gallon waste oil UST. The purpose of this Phase II investigation was to determine whether historic leaks from the tanks had affected the subsurface and to assist with future tank closure activities. The Phase II report was submitted to the NYSDEC for review and included a request to close the tanks in-place instead of removing them due to the structural constraints of the tank farm location.

Rose Plaza on the River, Brooklyn, NY

Mr. Schwendt conducted a Subsurface (Phase II) Investigation at the 470 Kent Avenue property located in Brooklyn, New York. The objective of the subsurface investigation was to characterize the subsurface soil and groundwater conditions and determine whether past or present on-site and/or off-site potential sources of contamination have adversely affected the site. Results of the Phase II study were also intended to be used to evaluate any potential environmental risks and/or the need for remedial action at the site prior to future development. The proposed development of the site includes the construction of approximately 665 market rate dwelling units and approximately 33,750 square feet of commercial uses. The scope of the Phase II study was based on a Phase I Environmental Site Assessment (January 2004) performed by AKRF, which identified recognized environmental conditions for the site, including the potential for soil and groundwater contamination from a historical on-site manufactured gas plant, and potential underground storage tanks. Phase II activities were conducted in accordance with AKRF's Sampling Protocol and site-specific Health and Safety Plan (HASP), which was reviewed and approved by the New York City Department of Environmental Protection (NYCDEP).

Albert Einstein College of Medicine Environmental Investigation, Bronx, NY

Mr. Schwendt managed a Subsurface (Phase II) Investigation at an approximately eight-acre portion of the Jacobi Medical Center fronting on Eastchester Road in the Bronx, New York. The site, owned by New York City, contained an old boiler house, a storage warehouse, a laundry facility, and several paved parking areas. The objective of the subsurface investigation was to characterize the subsurface conditions on the property and determine whether past or present on-site and/or off-site potential sources of contamination have adversely affected the study site.

Storage Deluxe, Various Locations, NY

Mr. Schwendt is currently the project manager for assisting Storage Deluxe with the ongoing expansion of their self-storage facilities primarily in the five boroughs of New York City and Westchester County. He conducts and manages environmental due diligence needs related to their property transactions including conducting Phase I ESAs, Phase II investigations, and geophysical surveys, as well as consulting on petroleum bulk storage tank management. He assists Storage deluxe in making decisions with respect to environmental risk issues.

270 Greenwich Street, New York NY

Mr. Schwendt conducted a subsurface (Phase II) investigation that included the advancement of soil borings and the collection of soil and groundwater samples from the 270 Greenwich Street property in the Tribeca neighborhood of New York City. The site will be developed with approximately 402 dwelling units (172 rental units and 230 for sale condominiums), approximately 224,084 gross square feet of destination and local retail space, and below-grade public parking. The purpose of this Phase II subsurface investigation was to ascertain subsurface soil and groundwater quality beneath the study site and determine whether past on- or off-site operations have affected the subject property. The subsurface investigation was also intended to determine whether there are any special handling or disposal requirements for pumped groundwater, should dewatering be necessary during site development. The Phase II study included soil and groundwater sampling as well as a geophysical investigation to determine whether unknown underground storage tanks were present at the site. Field activities were performed in accordance with Mr. Schwendt's Sampling Protocol and Health and Safety Plan (HASP), which were approved by the New York City Department of Environmental Protection (NYCDEP).

Columbia University Manhattanville Rezoning and Academic Mixed-Use Development, New York, NY

Mr. Schwendt is managing the hazardous materials task on the EIS for approximately 4 million square feet of new academic, research and neighborhood uses to be constructed north of Columbia University's existing Morningside campus. The work has included more than 25 Phase I Environmental Site Assessments for the properties within

the site boundaries and estimates for upcoming investigation and remediation. In addition, a Preliminary Environmental Site Assessment (PESA) was completed for the whole project area. Recognized environmental concerns in the area included: current and historical underground storage tanks; current and historical auto-related use such as repair shops and gasoline stations; two historical manufactured gas holders; and a Consolidated Edison cooling plant located on West 132nd Street. Mr. Schwendt conducted a subsurface investigation at the site to characterize the subsurface conditions on the property and determine whether past or present on-site and/or off-site potential sources of contamination have adversely affected the study site, and to use the analytical data to evaluate any potential environmental risks and/or the need for remedial action at the site prior to future development.

Hudson River Park, New York, NY

Mr. Schwendt serves as an on-call consultant for the ongoing development of the Hudson River Park, the approximately 5 to 6 mile section of waterfront property from Battery Place to 59th Street along the western edge of Manhattan. He conducts subsurface investigations, provides guidance on construction and environmental health and safety issues, interfaces with regulatory agencies as necessary, and manages the mitigation of environmental conditions encountered during site development activities.

Brooklyn Bridge Park, Brooklyn, NY

AKRF is providing environmental planning and review services for the development of a new 70-acre park that will revitalize 1.5 miles of the East River waterfront between Jay Street and Atlantic Avenue. When completed, the park would provide open space and recreational facilities as well as a hotel, restaurants, retail, and historic and educational venues. Mr. Schwendt conducted a Phase I ESA and Phase II Subsurface Investigation for the proposed Brooklyn Bridge Park area and is involved with the completion of the Environmental Impact Statement.

Titan Property Management, Rego Park, NY

Mr. Schwendt is currently involved with an extensive site investigation for a property involved in the New York State Voluntary Cleanup Program. The property is resting on a plume of PCE contamination. The goal of the investigation is to determine whether the property is the source of the contamination and to collect data to provide information for the design and implementation of a site remedial system. The investigation involves extensive soil, soil gas, and groundwater investigation, and includes the investigation of surrounding properties.

ABCO Refrigeration Company, Long Island, NY

Mr. Schwendt is managing a tank closure and dry well assessment and remediation project for the ABCO Refrigeration Company. Historic contamination was found seeping from the ground in the location of an old underground storage tank, which is believed to be a source of adverse impact. An adjacent drywell has been impacted by the tank as well as from past dumping activities of a former typewriter ribbon ink manufacturing company. A site-wide investigation of the ten drywells was also implemented at the request of the Nassau County Department of Health. Mr. Schwendt undertook soil remedial activities that led to the property receiving closure with respect to the underground storage tank. Drywell remedial activities were successful and the site received approval from the EPA to continue use of on-site drywells.

Levin Management Corporation Property—Site Investigation, Pelham Manor, NY

Mr. Schwendt has been involved in the on-going site investigation of a former manufactured gas plant (MGP) and petroleum off-loading and storage until the late 1950s. Soils have also been observed to have been affected by non-aqueous phase liquid (NAPL) consisting of oil- and tar-like material. Floating or light NAPL (LNAPL) has also been detected in one on-site groundwater. The objectives of the site investigation are to collect additional data to further determine the extent of NAPL-affected soil both above and below the water table throughout the site; collect additional data to further delineate groundwater contamination throughout the site; and confirm the on-

site groundwater flow direction and that NAPL has not migrated to the downgradient perimeter of the site, including Eastchester Creek. Mr. Schwendt was brought on board for this project for his expertise in soil and groundwater MGP contaminant delineation.

NYCDEP Bureau of Environmental Engineering 26th Ward Wastewater Treatment Plant—Site Investigation, Brooklyn, New York

Mr. Schwendt managed and conducted environmental sampling and testing at the 26th Ward Wastewater Treatment Plant property located in Brooklyn, New York. This investigation was performed to determine the presence or absence of contamination in the soil and groundwater that would affect the proposed construction of a new raw sewage pump station. Mr. Schwendt provided the 26th Ward with the protocol necessary for the special handling and disposal of the excavated soil as well as for the groundwater that would be pumped during dewatering operations.

Olnick Organization, New York, NY

AKRF was retained by the Olnick Organization to prepare and implement an SPCC Plan for their aboveground storage tank system for an office building in Manhattan. Mr. Schwendt performed the site inspections and provided the Olnick Organization with a list of recommendations for upgrades to their fuel transfer piping system that would bring the facility into compliance with SPCC regulations. He also provided Olnick with a plan for implementing the required SPCC training program for their facility personnel.

Site investigations of former MGP Facilities/Properties for Consolidated Edison, New York City, NY & Westchester County, NY

While with another firm, Mr. Schwendt worked on this project, which included a service station in New York City and an electrical substation in Westchester County, New York. Mr. Schwendt performed the site characterizations, including subsurface soil and groundwater impact delineation and aquifer testing. The findings from these characterizations are being used by Consolidated Edison to make appropriate changes to the design specifications and to plan for appropriate handling of impacted materials and health and safety protocols during future construction activities.

UST Site Investigation and Remediation for Consolidated Edison Service Center, Queens, NY

While with another firm, Mr. Schwendt worked on this project, which included due diligence site reviews, soil boring installation, monitoring well installation, hydrogeologic testing, and water quality sampling. Risk-based closures incorporating natural attenuation and groundwater monitoring activities have been proposed. Remedial work plans are under development for other facilities where more aggressive remedial actions are required. Performed subsurface investigations and site characterizations for several other Consolidated Edison facilities including soil-gas surveys and radiological scoping survey.

Petroleum Bulk Storage Management Program for Bell Atlantic-New York (now Verizon), Manhattan, Brooklyn, Queens, Bronx, Staten Island, and Long Island, NY

While with another firm, Mr. Schwendt personally designed and conducted subsurface investigations for UST remediations including characterization of releases, soil and ground water investigations, pilot tests, slug tests, pump tests, groundwater modeling, horizontal and vertical impact delineation, and preparation of compliance documentation for regulatory agencies. He performed oversight of the installation of 'pump and treat' remedial systems and performed maintenance activities. He also supervised UST installations, upgrades and closures; implemented tank tightness testing programs; addressed on-site health and safety issues and other regulatory requirements; prepared closure reports; and managed soil disposal.

Hertz Rent-A-Car Corporate Headquarters, Park Ridge, NJ

Mr. Schwendt served as an in-house consultant/project manager for the environmental department at Hertz's corporate office in Park Ridge, New Jersey. He managed Phase I and Phase II investigations for real estate purchases, leases and acquisitions throughout the United States and Canada. He coordinated Hertz's subcontractors and environmental consulting firms, reviewed reports, and made recommendations to the legal and real estate departments with respect to environmental risk issues.

Temple University, Philadelphia, PA

Mr. Schwendt was a lead auditor for a multi-phase compliance audit of the five campuses of Temple University. The audit included an assessment of all of the Temple University Hospitals, the School of Medicine, the College of Science and Technology, the Tyler School of Art, the College of Engineering, Ambler College (Community and Regional Planning, Horticulture, Landscape Architecture), the Physical Plant Department, and all university facilities and maintenance departments. Regulatory programs targeted as part of the audit included, but were not limited to, federal and state air and water programs, hazardous waste management, hazardous chemicals and substances, FIFRA (pesticides), emergency response, Community Right-to-Know, TSCA (toxic substances), and petroleum bulk storage regulations. Following completion of the audit, Mr. Schwendt prepared and implemented an environmental management system that conformed to the needs and culture of the Temple University organization.

University of Pennsylvania, Philadelphia, PA

Mr. Schwendt was the lead auditor for an environmental compliance audit of the University of Pennsylvania's Department of Environmental Health and Radiation Safety. The audit included an assessment for the preparation and implementation of the university's Spill Prevention, Control, and Countermeasures Plans (SPCC Plans). Mr. Schwendt prepared and implemented the university's environmental management program and provided training for the facility personnel.

Wistar Institute, Philadelphia, PA

Mr. Schwendt was the lead auditor for an environmental compliance audit of the Wistar Institute, an independent non-profit biomedical research institute in West Philadelphia, Pennsylvania. The multi-phase audit comprised an assessment of the entire facility for compliance with federal, state and local environmental regulations and included the development of an environmental management system.

Seton Hall University, South Orange, NJ

Mr. Schwendt was a lead auditor for a multi-phase compliance audit of the Seton Hall University campus. The audit comprised an assessment of the entire facility for compliance with federal and state air and water programs, hazardous waste management programs, hazardous chemicals and substances programs, FIFRA (pesticides), emergency response and Community Right-to-Know regulations, TSCA (toxic substances), and petroleum bulk storage regulations. The audit included the development and implementation of an environmental management system for the Seton Hall University faculty and staff.

South Bronx Overall Economic Development Corporation (SoBRO) Port Morris Brownfield Opportunity Areas (BOA), Bronx, NY

Mr. Schwendt is assisting SoBRO with the in-depth and thorough analysis of existing conditions, opportunities, and reuse potential for properties located in the proposed Port Morris Brownfield Opportunity Area with an emphasis on the identification and reuse potential of strategic brownfield sites that may be catalysts for revitalization. His work so far has included the preparation of Phase I Environmental Site Assessments for the catalyst sites and advertising on the suitability of enacting zoning changes to permit various property uses.

STEPHEN R. GRENS, JR.

ENVIRONMENTAL SPECIALIST

Stephen Grens, Jr. is an Environmental Specialist with expertise in Phase I and II site assessments and comprehensive asbestos surveys. He has completed assessments in New York, New Jersey, Connecticut, Pennsylvania, North Carolina, South Carolina, and Georgia. Mr. Grens is also actively involved in data interpretation and report preparation.

BACKGROUND

Education

B.S., Environmental Sciences, State University of New York (SUNY), Purchase, Expected Graduation Date: May 2010

Licenses/Certifications

New York State Certified Asbestos Inspector, Asbestos Project Monitor, and Air Sampling Technician, 1998

LIRR Roadway Worker, 2007

OSHA HAZWOPER Site Safety Supervisor , 2006

NYC Department of Buildings (DOB) Expediter, 2000

Years of Experience

Year started in company: 1996

Year started in industry: 1996

RELEVANT EXPERIENCE

Former Domino Sugar Refinery

Need project description

Mr. Grens performed environmental oversight for the installation of numerous groundwater monitor wells, soil borings and soil and groundwater sampling. Soil and groundwater sampling and monitoring are being performed in accordance with the NYCDEP approved workplan.

Triangle Parcel

Need project description

Mr. Grens performed environmental oversight for the installation of numerous groundwater monitor wells, soil borings and soil and groundwater sampling. Soil and groundwater sampling and monitoring are being performed in accordance with the NYSDEC approved workplan.

Gedney Way Landfill, White Plains, NY

Need project description

Mr. Grens performed environmental oversight for the installation of numerous groundwater monitor wells, soil gas vapor extraction points, test pits, soil removal and soil and groundwater sampling. Remedial activities at the landfill are being performed for landfill closure in accordance with the NYSDEC approved workplan.

Flushing Industrial Park, Flushing, NY

Mr. Grens performed environmental and remediation oversight including the implantation of the site specific health and safety plan (HASP) during excavation activities at the Flushing Industrial Park site. Approximately 22,762 tons of PCB contaminated soil and 55,629 tons of non-hazardous soil were remediated and disposed of at the appropriate receiving facilities. The environmental clean-up activities at the Flushing Industrial site were done in accordance with the U.S. Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC) under the Brownfields Clean-Up Program. Mr. Grens is currently overseeing the construction related remedial oversight activities at the Flushing Industrial Park site and will continue through 2008/2009.

Queens West Development Project, Long Island City, NY

For over 20 years, AKRF has played a key role in advancing the Queens West development, which promises to transform an underused industrial waterfront property into one of largest and most vibrant mixed-use communities just across the East River from the United Nations. AKRF has prepared an EIS that examines issues pertaining to air quality, land use and community character, economic impacts, historic and archaeological resources, and infrastructure. As part of the project, AKRF also undertook the largest remediation venture completed to date under the Brownfields Cleanup Program (BCP). Mr. Grens performed environmental oversight including the implantation of the site specific health and safety plan (HASP) during excavation activities at the site. The environmental clean-up activities were done in accordance with the U.S. Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC) under the Brownfields Clean-Up Program.

Sutphin Boulevard Underpass, Jamaica, Queens

Mr. Grens performed the Phase I Environmental Site Assessment, Phase II Subsurface Investigation and asbestos and lead-based paint surveys at the LIRR-owned Sutphin Boulevard site. Portions of the Phase I report were used in the Hazardous Materials Chapter of the Environmental Impact Statement. Mr. Grens reviewed previous environmental reports, performed oversight for the installation of soil gas points and soil borings, and performed the asbestos and lead paint surveys. The proposed redevelopment of the property included retail and commercial spaces.

Parkway Road Site, Bronxville, NY

Mr. Grens supervised and documented the removal of USTs, two hydraulic lifts, dry wells, and petroleum contaminated soil from a parcel that was formerly utilized as a gasoline service station. This site would eventually be redeveloped into multi-unit residential apartments.

Hanover Hall, Stamford, CT

Mr. Grens performed a remote camera observation of the sanitary sewer line to determine the presence of cracks associated with the contamination of surrounding soil. This procedure was implemented as a cost effective means to determine the precise location of possible soil and/or groundwater contamination.

East 135th Street Site, Bronx, NY

Mr. Grens supervised and documented the removal of approximately 8,000 tons of urban fill and metal-contaminated soil for the construction of a storage facility on the Harlem River. He was responsible for the

delineation of contaminated areas, and subsequent confirmation soil sampling. Soil was delineated to the extent feasible in order to make way for the storage facility.

Montagano Oil Blending Facility, Pleasantville, NY

Mr. Grens supervised and documented the removal of numerous aboveground storage tanks (ASTs) and oil mixing kettles. Approximately ten 550-gallon aboveground fuel oil storage tanks were rendered free of their contents, cleaned, cut, and removed off-site for disposal. All removal activities were performed in accordance with applicable state and federal regulations. Additional on-site activities included the removal of a 1,000-gallon underground gasoline storage tank, and the installation of site-wide groundwater monitoring wells.

Bridgeport Municipal Stadium (Former Jenkins Valve Property), Bridgeport, CT

As part of the City of Bridgeport's revitalization program for the construction of a minor league baseball facility, Mr. Grens supervised and documented the removal of approximately 14,000 tons of solvent, petroleum, and metal-contaminated soil. He was responsible for the delineation of contaminated areas as well as subsequent confirmation soil sampling for the local sponsoring municipality. Additional on-site activities included the installation of groundwater monitoring wells, removal of underground storage tanks, and management of the current groundwater monitoring program.

Catskill/Delaware Water Treatment Facility, Mount Pleasant and Greenburgh, NY

Mr. Grens was responsible for the contaminated materials analysis as part of the Environmental Impact Statement (EIS) for the New York City Department of Environmental Protection (DEP). The analysis included the Phase I site assessment, a description of the chemicals to be used in the direct filtration process, and their alternatives. Mr. Grens also worked on the Electromagnetic Fields (EMF) analysis for this EIS. It included the interpretation of electromagnetic data from existing on-site sources, including transformers, high-voltage lines, and electrical panels.

Former Sterns Department Store, Queens, NY

Mr. Grens conducted asbestos air monitoring and sampling at the former Sterns department store during asbestos abatement procedures conducted as part of demolition operations in preparation for a multiplex cinema and outlet store.

Former Jay Street Welfare Building and Adams Street Family Courthouse Building, Brooklyn, NY

Mr. Grens acted as the on-site asbestos project manager during asbestos abatement activities required prior to interior renovations. Tasks included project management and collecting asbestos air samples during abatement activities in accordance with applicable New York City and State regulations.

East 75th/76th Street Development Site, New York, NY

As the designated health and safety officer (HSO), Mr. Grens' responsibilities included the personal well-being of all on-site personnel during Phase II activities. He managed and supervised the excavation, removal, and off-site disposal of numerous hazardous materials and petroleum-containing underground storage tanks, associated hazardous and contaminated soil, and stained bedrock. This site was formerly utilized as a dry-cleaning facility, parking garage, and automobile repair facility. It was classified as a hazardous waste site because of leaking underground storage tanks. Additional tasks at this site included the continuous monitoring of work-zone and community air and dust particulate levels, implementing the health and safety plan (HASP), and collecting soil and tank product samples in accordance with applicable New York State regulations. Remedial activities at the site began in December 2000 (prior to the demolition of the on-site buildings) and were successfully completed in May 2001. The construction of a new school is anticipated on the site in the near future.

Memorial Sloan Kettering Cancer Center, New York, NY

Mr. Grens has performed numerous noise impact studies on the east side of midtown Manhattan to assist in the determination of the various project scenarios within each site's respective EIS. Noise produced by mobile sources (automobiles, trucks, and trains), stationary sources (machinery, ventilation systems, and manufacturing operations), and construction activities can cause stress-related illness, disrupt sleep, and break concentration. The noise impact study for the Memorial Sloan Kettering Cancer Center was conducted to determine real time noise levels prior to renovations and construction activities. This provided a background level reference point for when construction activities started. Mr. Grens' tasks included collecting relevant noise data at numerous locations during morning, afternoon, and evening rush hours to determine real time noise levels utilizing a Larsen Davis decibel level indicator.

Con Edison East Side Development Sites, New York, NY

Mr. Grens has performed numerous noise impact studies on the east side of midtown Manhattan to assist in the determination of the various project scenarios within each site's respective EIS. Mr. Grens' tasks included collecting relevant noise data at numerous locations during morning, afternoon, and evening rush hours to determine real time noise levels utilizing a Larsen Davis decibel level indicator.

Supermarket Redevelopment, New Fairfield, CT

AKRF provided consulting services to the developer and owner of a 9-acre site included conducting a remedial investigation and remediation of a site contaminated from former dry cleaning operations and off-site gasoline spills. The investigation included the installation of monitoring wells in three distinct aquifers, geophysical logging, pump tests, and associated data analysis. Mr. Grens performed remediation oversight, including the excavation of solvent-contaminated soil and health and safety air monitoring for volatile organic compounds (VOCs). Additionally, Mr Grens performed weekly inspections of the groundwater treatment system, including the collection of groundwater samples as art of the operation and maintenance of the system.

Columbia University Manhattanville Academic Mixed-Use Development, New York, NY

Mr. Grens performed numerous Phase I Environmental Site Assessments for the Columbia Manhattanville re-zoning project. He also performed Phase II subsurface activities recommended in AKRF's Phase I reports. Phase II activities included the installation of soil borings and groundwater monitoring wells and the collection of soil and groundwater samples.

St. Agnes Hospital Redevelopment, White Plains, NY

AKRF is currently working for North Street Community, LLC on the former St. Agnes Hospital campus in White Plains, New York. The project involves redeveloping the property into an assisted living and nursing home facility. Some of the existing buildings and uses will remain and several new buildings will be built for the new facility. AKRF's assignment includes preparing the site plan package to accompany the Draft Environmental Impact Statement (DEIS) for the project. Mr. Grens performed a Phase I Environmental Site Assessments of the numerous structures located on the property.

Roosevelt Union Free School District, Roosevelt, NY

Mr Grens performed numerous inspections for asbestos-containing materials (ACM) in the site buildings. Asbestos samples were collected as part of the ACM survey. Remediation activities include removal/closure of contaminated dry wells and underground petroleum storage tanks, and excavation and off-site disposal of petroleum- and pesticide-contaminated soil.

Flushing Waterfront Development, Queens, NY

The Muss Development Company's 14-acre waterfront site in Downtown Flushing was previously a Consolidated Edison facility, and included transformer storage and repair and multiple fueling facilities. Other former site uses

included a foundry, a paint house, and an incinerator. The site contained extensive PCB contamination including non-aqueous phase liquid (NAPL). The project required extensive investigation to design a remediation plan under the State's BCP program. Remediation, including removal of more than 100,000 tons of contaminated soil has been completed and foundation work is underway. By 2009, the site will be redeveloped with a 3 million square foot retail and residential complex. The project will transform a neighborhood blight into a spectacular mixed-use development that will help revitalize the Flushing economy.

APPENDIX G

MONITORING WELL CONSTRUCTION LOGS

AKRF, Inc.

Environmental Consultants

440 Park Avenue South, 7th Fl. New York, NY 10016

AKRF Project Number : 11160

Well No. MW-1

Sheet 1 of 1

Drilling Method:	HAS
Sampling Method:	
Driller :	ADT
Weather:	80° Sunny
Logged by:	KH

Drilling	
Start	**Finish**
Time: 11:50	**Time: 13:00**
Date: 8/4/14	**Date: 8/4/14**

Depth (feet)	Well Construction	Construction Description
1		**Bentonite Seal**
2		**Grout**
3		
4		
5		**Sand**
6		
7		
8		
9		
10		
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19		
20		

Notes:
Groundwater apparent at 9'.
Soil samples were not collected during well installation.

Well Screen

AKRF, Inc.

Environmental Consultants

440 Park Avenue South, 7th Fl. New York, NY 10016

AKRF Project Number : 11160

Well No. MW-1

Sheet 1 of 1

Drilling Method:	HAS
Sampling Method:	
Driller :	ADT
Weather:	80° Sunny
Logged by:	KH

Drilling	
Start	**Finish**
Time: 13:00	**Time: 14:00**
Date: 8/4/14	**Date: 8/4/14**

Depth (feet)	Well Construction	Construction Description
1		**Bentonite Seal**
2		**Grout**
3		
4		**Sand**
5		
6		
7		
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Notes:
Groundwater apparent at 9'.
Soil samples were not collected during well installation.

Well Screen

AKRF, Inc.

Environmental Consultants

440 Park Avenue South, 7th Fl. New York, NY 10016

AKRF Project Number : 11160

Well No. MW-1

Sheet 1 of 1

Drilling Method:	HAS
Sampling Method:	
Driller :	ADT
Weather:	80° Sunny
Logged by:	KH

Drilling	
Start	**Finish**
Time: 9:30	**Time: 11:40**
Date: 8/4/14	**Date: 8/4/14**

Depth (feet)	Well Construction	Construction Description
1		**Bentonite Seal**
2		**Grout**
3		
4		**Sand**
5		
6		
7		
8		
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10		
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Notes:
Groundwater apparent at 9'.
Soil samples were not collected during well installation.

Well Screen

AKRF, Inc.

Environmental Consultants

440 Park Avenue South, 7th Fl. New York, NY 10016

AKRF Project Number : 11160

Well No. MW-1

Sheet 1 of 1

Drilling Method:	HAS
Sampling Method:	
Driller :	ADT
Weather:	80° Sunny
Logged by:	KH

Drilling	
Start	**Finish**
Time: 8:00	**Time: 9:20**
Date: 8/5/14	**Date: 8/5/14**

Depth (feet)	Well Construction	Construction Description
1		**Bentonite Seal**
2		**Grout**
3		
4		**Sand**
5		
6		
7		
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Notes:
Groundwater apparent at 9'.
Soil samples were not collected during well installation.

Well Screen

AKRF, Inc.

Environmental Consultants

440 Park Avenue South, 7th Fl. New York, NY 10016

AKRF Project Number : 11160

Well No. IW-1

Sheet 1 of 1

Drilling Method:	HAS
Sampling Method:	
Driller :	ADT
Weather:	80° Sunny
Logged by:	KH

Drilling	
Start	**Finish**
Time: 9:30	**Time: 11:00**
Date: 8/5/14	**Date: 8/5/14**

Depth (feet)	Well Construction	Construction Description
1		**Bentonite Seal**
2		**Grout**
3		
4		
5		
6		
7		
8		**Sand**
9		
10		
11		
12		
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Notes:

Groundwater apparent at 9'.

Soil samples were not collected during well installation.

Well Screen

AKRF, Inc.

Environmental Consultants

440 Park Avenue South, 7th Fl. New York, NY 10016

AKRF Project Number : 11160

Well No. IW-2

Sheet 1 of 1

Drilling Method:	HAS
Sampling Method:	
Driller :	ADT
Weather:	80° Sunny
Logged by:	KH

Drilling	
Start	**Finish**
Time: 11:15	**Time: 12:00**
Date: 8/5/14	**Date: 8/5/14**

Depth (feet)	Well Construction	Construction Description
1		**Bentonite Seal**
2		**Grout**
3		
4		
5		
6		
7		
8		**Sand**
9		
10		
11		
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Notes:

Groundwater apparent at 9'.

Soil samples were not collected during well installation.

Well Screen

AKRF, Inc.

Environmental Consultants

440 Park Avenue South, 7th Fl. New York, NY 10016

AKRF Project Number : 11160

Well No. IW-3

Sheet 1 of 1

Drilling Method:	HAS
Sampling Method:	
Driller :	ADT
Weather:	80° Sunny
Logged by:	KH

Drilling	
Start	**Finish**
Time: 12:20	**Time: 13:10**
Date: 8/5/14	**Date: 8/5/14**

Depth (feet)	Well Construction	Construction Description
1		**Bentonite Seal**
2		**Grout**
3		
4		
5		
6		
7		
8		**Sand**
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10		
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Notes:

Groundwater apparent at 9'.

Soil samples were not collected during well installation.

Well Screen

AKRF, Inc.

Environmental Consultants

440 Park Avenue South, 7th Fl. New York, NY 10016

AKRF Project Number : 11160

Well No. IW-4

Sheet 1 of 1

Drilling Method:	HAS
Sampling Method:	
Driller :	ADT
Weather:	80° Sunny
Logged by:	KH

Drilling	
Start	**Finish**
Time: 13:20	**Time: 13:50**
Date: 8/5/14	**Date: 8/5/14**

Depth (feet)	Well Construction	Construction Description
1		**Bentonite Seal**
2		**Grout**
3		
4		
5		
6		
7		
8		**Sand**
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Notes:

Groundwater apparent at 9'.

Soil samples were not collected during well installation.

Well Screen

AKRF, Inc.

Environmental Consultants

440 Park Avenue South, 7th Fl. New York, NY 10016

AKRF Project Number : 11160

Well No. IW-5

Sheet 1 of 1

Drilling Method:	HAS
Sampling Method:	
Driller :	ADT
Weather:	80° Sunny
Logged by:	KH

Drilling	
Start	**Finish**
Time: 14:00	**Time: 14:35**
Date: 8/5/14	**Date: 8/5/14**

Depth (feet)	Well Construction	Construction Description
1		**Bentonite Seal**
2		**Grout**
3		
4		
5		
6		
7		
8		**Sand**
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Notes:

Groundwater apparent at 9'.

Soil samples were not collected during well installation.

Well Screen

APPENDIX H

SITE-WIDE INSPECTION FORM

Site-Wide Inspection Form
2477 Third Avenue, Bronx, New York
VCP Site No. V00304

Inspector: _____

Date: _____

1. Site Use Restrictions

No groundwater withdrawal for potable/non-potable use?

Commercial use maintained?

2. Site Cover

Note the date that the annual site cover inspection was performed:

Repairs made as noted during inspection?

3. Soil Management

Note the date(s) of any soil disturbance activities conducted during the past year:

Proper soil management procedures implemented (cite appropriate close-out reports)?

4. Groundwater Monitoring

Monitoring being conducted on a quarterly (note the dates of sampling conducted)?

All on-site monitoring wells in working condition (note any repairs/replacement)?

5. Recordkeeping

Check that the following records/reports are being maintained/completed (note report/log dates as appropriate):

1) Annual site cover inspection log

2) Close-out report(s) for soil disburbance activities (including manifests for soil disposal)

3) Annual groundwater monitoring reports (including laboratory analytical data)

6. Comments

(Note any deficiencies and recommendations for corrective actions.)