# 1800 SOUTHERN BOULEVARD BRONX, NEW YORK

### REMEDIAL INVESTIGATION REPORT

**NYSDEC BCP Number: Pending** 

Prepared for

SB1800 LLC 100 Park Avenue Suite 1600 New York, New York 11717

## **ROUX ASSOCIATES, INC.**

Environmental Consulting & Management



209 Shafter Street, Islandia, New York 11749 ♦ 631-232-2600

#### TABLE OF CONTENTS

1.0 INTRODUCTION	1
2.0 SITE DESCRIPTION AND HISTORY	2
2.1 Adjoining Property	
2.2 Topography	
2.3 Water Supply	
2.4 Geologic Setting	
2.5 Site Operational History	
2.6 Site Investigation History	
2.6.1 2007 Phase I	
2.6.2 2003 Subsurface Hydrocarbon Assessment Report	4
2.6.3 2003 Underground Storage Tank Excavation Assessment Report	5
3.0 DISCUSSION OF INVESTIGATION ACTIVITIES	7
3.1 Soil Boring and Sampling	
3.2 Test Pits.	
3.3 Soil Vapor Sampling	
3.4 Groundwater Sampling	
3.5 Laboratory Analyses	
4.0 PRESENTATION OF ANALYTICAL RESULTS	11
4.1 Soil Analytical Results	
4.2 Soil Vapor Analytical Results	
4.3 Groundwater Analytical Results	
5.0 QUALITATIVE EXPOSURE ASSESSMENT	14
6.0 CONCLUSIONS AND RECOMMENDATIONS	16

#### **TABLES**

- 1. Summary of Sampling Locations
- 2. Summary of Volatile Organic Compounds Detected in Soil
- 3. Summary of Semivolatile Organic Compounds Detected in Soil
- 4. Summary of Metals Detected in Soil
- 5. Summary of Polychlorinated Biphenyl Compounds Detected in Soil
- 6. Summary of Pesticides Detected in Soil
- 7. Summary of Volatile Organic Compounds in Soil Vapor Samples
- 8. Summary of Volatile Organic Compounds Detected in Groundwater
- 9. Summary of Semivolatile Organic Compounds Detected in Groundwater
- 10. Summary of Metals Detected in Groundwater
- 11. Summary of Polychlorinated Biphenyls Detected in Groundwater
- 12. Summary of Pesticides Detected in Groundwater

#### **TABLE OF CONTENTS**

#### (Continued)

#### **FIGURES**

- 1. Site Location Map
- 2. Site Plan with Soil, Groundwater and Soil Vapor Sampling Locations
- 3. Summary of Compounds Detected in Soil in Excess of Part 375 Unrestricted SCOs
- 4. Summary of Compounds Detected in Soil in Excess of Part 375 Restricted Residential SCOs
- 5. Summary of Compounds Detected in Groundwater in Excess of AWQSGVs

#### **APPENDICES**

- A. Soil Boring Logs
- B. Analytical Data

#### 1.0 INTRODUCTION

On behalf of SB 1800 LLC ("Requestor"), Roux Associates, Inc. ("Roux Associates") has prepared this Remedial Investigation ("RI") Report for the property located at 1800 Southern Boulevard, Bronx, New York (the "Site", Figure 1). The RI was conducted in support of a New York State Department of Environmental Conservation ("NYSDEC") Brownfield Cleanup Program ("BCP") Application dated August 2008 where the Requestor is a Volunteer in the BCP for the Site (BCP Site Number is pending).

The scope of work summarized in the RI Report was developed to further define the nature and extent of impacted soil, groundwater, and soil vapor related to historical operations of the Site and specifically included the following objectives:

- Refine the nature and extent of impacts to soil quality resulting from historical operations of a gasoline station at the Site;
- Refine the nature and extent of impacts to groundwater quality resulting from historical operations of a gasoline station at the Site; and
- Evaluate the potential for impacts to soil vapor associated with subsurface contamination to occur.

Previous investigations performed at the Site are discussed below and summarized in the flowing reports:

- ATC Associates, Inc. Draft Phase I Environmental Site Assessment 1772-1808 Southern Blvd., Bronx, New York. October 18, 2007.
- Delta Environmental Consultants, Inc. Subsurface Hydrocarbon Assessment Report, 1776 Southern Blvd., Bronx, New York. September 17, 2003.
- Delta Environmental Consultants, Inc. Underground Storage Tank Excavation Assessment Report, 1776 Southern Blvd., Bronx, New York. September 11, 2003.

2.0 SITE DESCRIPTION AND HISTORY

The Site is located at 1800 Southern Boulevard, Borough of the Bronx, New York City, New

York 10460 and is identified as Block 2984, Lots 1 and 7 on the New York City Tax Map. The

property is also known by 1776-1778 Southern Boulevard and 1800 to 1808 Southern Boulevard.

A Site Location Map (Figure 1) shows the Site location. The site is a triangular shaped parcel of

land approximately 0.27-acres in size situated at the southern tip of a city block where Boston

Road and Southern Boulevard cross with Southern Boulevard to the west and Boston Road to the

east and south (see Figure 2).

Currently, the southern portion of the Site includes the remnants of a vacated Amoco gasoline

station. The gasoline station has been vacant since 2003 and the area is primarily covered in

concrete or gravel. The northern portion of the Site was a car wash that has been vacant since

1993. All of the facilities associated with the car wash have been demolished and this portion of

the Site was fenced by New York City and is only exposed soil overgrown in spots with weed

vegetation.

2.1 Adjoining Property

The land use surrounding the Site is a combination of commercial, recreational, and residential

areas. Sensitive receptors, including schools, daycare facilities, and hospitals, are not located on

adjoining properties. Provided below is a description of the adjoining properties.

East: East of the Site is Boston Road. There is an elevated MTA subway track running above

Boston Avenue with a vacant parking lot and a mixture of commercial and residential

properties beyond.

West: West of the Site is Southern Boulevard with Crotona Park East road, Crotona Park, and

a mixture of commercial and residential properties beyond.

North: North of the Site is a self storage center with East 175<sup>th</sup> Street and a vacant lot beyond.

South: South of the Site is the intersection of Boston Road and Southern Boulevard with the

174<sup>th</sup> Street MTA Station located above this intersection (elevated tracks) a vacant lot

and a mixture of commercial and residential properties beyond.

According to New York City zoning maps (last revised on May 9, 2007), the general area surrounding the Site is divided into residential and commercial zoning classifications.

#### 2.2 Topography

The Site topography is relatively flat with an approximate elevation of 70 feet above mean sea level. Precipitation to the graveled and soil areas infiltrates into the subsurface. Surface runoff at the Site is directed towards adjoining roads with New York City storm sewers.

In general, regional topography is rolling with decreases in topography to the north and east. The nearest surface water body is the Bronx River located approximately 0.4 mile east of the Site.

#### 2.3 Water Supply

Potable water in the Bronx is supplied by the New York City Bureau of Water and Sewer Operations. There are no public supply wells onsite. Although it has not been conclusively verified, it is also unlikely that there are any private wells located near the Site.

#### 2.4 Geologic Setting

The general vicinity of the Site is underlain by Pleistocene-age glacial till, dominantly consisting of fine to coarse grained sand with interstitial lenses of gravel, silt, and large boulders (Delta 2003).

The Site contains shallow occurring bedrock (approximately 24 feet bls) that is directly overlain by weathered rock and mix of sand, silt, and clay in varying thickness. Evidence of fill material was observed at depths ranging from zero to five feet bls. The area of the former USTs has been filled with gravel. Soil boring logs generated during Roux Associates June 2008 RI are attached as Appendix A. Groundwater at the Site was measured at being approximately 9 to 10 feet bls.

#### 2.5 Site Operational History

The Site Operational History presented by ATC Associates, Inc. ("ATC") in an October 18, 2007 "Draft Phase I Environmental Site Assessment Report" ("Phase I ESA"), indicated that a filling station, and either auto repair facility or car wash were located on the Site beginning sometime

between 1927 to 1940. It was reported that the car wash ceased operation in 1993. In 2003, the gasoline station underground storage tanks ("USTs") were removed and the entire property became vacant (Delta 2003). The ATC Phase I ESA was included in the Requestor's BCP Application.

#### 2.6 Site Investigation History

The following section provides a summary of the investigation and remediation history of the Site.

#### 2.6.1 2007 Phase I

The Phase I ESA report, conducted in October 2007 by ATC concluded that the presence of historical USTs at the Site was a recognized environmental concern. That report indicates that there were four 4,000-gallon capacity gasoline tanks at the Site that were closed/removed in August 2003. There were no other recognized environmental concerns identified by ATC at the Site.

#### 2.6.2 2003 Subsurface Hydrocarbon Assessment Report

Delta Environmental Consultants, Inc. ("Delta") conducted a Subsurface Hydrocarbon Assessment at the Site between February 2003 and July 2003.

As part of a baseline divestment investigation, Delta advanced five soil borings in February 2003 and collecting soil and groundwater samples from each boring for analysis of VOCs. Analytical results of soil samples did not indicate any VOCs in soil that exceed NYSDEC unrestricted use standards. Groundwater samples identified between one and 13 VOCs that exceeded NYSDEC AWQSGVs. Total BTEX concentrations in groundwater samples ranged from 7 micrograms per liter (" $\mu$ g/L") in SB-4 to 11,273  $\mu$ g/L in SB-2.

In July 2003, four monitoring wells (MW-1 to MW-4) were installed at the Site and three groundwater samples were collected (MW-1 to MW-3). MW-4 was not sampled as it was dry. Groundwater samples identified between one and 13 VOCs that exceeded NYSDEC AWQSGVs. Total BTEX concentrations in groundwater samples ranged from 20 µg/L in MW-3 to 22,512 µg/L in MW-1.

The 2003 Subsurface Hydrocarbon Assessment Report measured water-level elevations across the Site and concluded a general groundwater flow direction to the north, northeast with a hydraulic gradient of approximately 0.0067 feet/foot.

Sampling locations from Delta's February 2003 and July 2003 investigations are shown on Figure 2. Analytical results of soil and groundwater are summarized in Table 2 and Table 8, respectively.

Based on the presence of VOC concentrations in groundwater in excess of NYSDEC AWQSGVs NYSDEC Spill Number 02-12264 was opened on March 13, 2003. The spill number is still currently open.

#### 2.6.3 2003 Underground Storage Tank Excavation Assessment Report

Delta prepared an Underground Storage Tank Excavation Assessment Report to document the results of gasoline tank and pump island excavation at the Site between July 2003 and August 2003.

Between July 24, 2003 and August 1, 2003 Salamone Brothers, Inc. excavated four 4,000-gallon capacity double walled steel gasoline USTs from a single excavation. The gasoline tanks were observed to be in good condition with no visible holes or areas of pitting. Six post-excavation sidewall and four post-excavation bottom samples were collected for VOC analysis. Sidewall samples were collected from 7 feet below land surface ("bls") and bottom samples were collected from 12 feet bls.

Five pump island dispensers and associated piping were excavated from the Site between July 24, 2003 and August 1, 2003. Following excavation five post excavation samples were collected from the pump island dispenser areas and three samples were collected from the piping run areas for analysis of VOCs. All samples were collected from two feet below land surface.

Analytical results of post excavation soil samples indicated that 14 of 18 post excavation samples exceeded NYSDEC TAGM 4046 soil cleanup objectives. Compared to Part 375 standards, 13 of

18 post excavation samples exceed Unrestricted Use standards and 4 of 18 samples exceed Restricted Residential standards.

Although Roux Associates does not have a figure showing sampling locations from Delta's July 2003 UST removal program, all samples are assumed to have been collected in the immediate area of the former USTs as shown on Figure 2. Analytical results are summarized in Table 2.

During tank excavation, approximately 226 tons of petroleum impacted soil were transported from the Site and disposed of in Carteret, New Jersey.

#### 3.0 DISCUSSION OF INVESTIGATION ACTIVITIES

Roux Associates completed a RI of soil, groundwater, and soil vapor associated with the release of petroleum at the Site as identified by Delta in historic Site investigations. The RI was performed between June 2008 and July 2008, during which the following was performed:

- Seven soil borings were advanced;
- Eight soil samples were collected and submitted for laboratory analysis;
- Three test pits were excavated;
- Two soil vapor samples and 1 air sample were collected and submitted for laboratory analysis; and
- Six groundwater samples were collected from six soil borings and submitted for laboratory analysis.

A summary of the sampling locations and analyses performed is provided in Table 1. A figure showing sampling locations is included as Figure 2.

#### 3.1 Soil Boring and Sampling

Seven soil borings (SB-101 to SB-107) were completed during the RI in June 2008, five onsite and two offsite (SB-104 and SB-105). One soil sample was analyzed from six of the soil borings and two soil samples were analyzed from one soil boring (SB-101). At each soil boring location, soil samples were collected using a Geoprobe direct push sampler. Soil samples were collected in five-foot increments to the completion depth indicated in the Soil Boring Logs (Appendix A). Each five-foot increment was collected in dedicated acetate sleeves. The acetate sleeve was laid on a piece of polyethylene sheeting and opened. Soil in the acetate sleeve were separated into approximately two-foot long sections and screened with a PID. Following the PID screening, a portion of soil from each two-foot long section was placed into pre-cleaned sample jars and placed on ice in a cooler at 4°C. All remaining soils were visually characterized according to the Unified Soils Classification System ("USCS") and placed into zip-lock plastic storage bags and homogenized. The bags were allowed to stand for approximately 30 minutes and the bag headspace was monitored for organic vapors with a PID.

All soil samples were analyzed for volatile organic compounds ("VOCs"), semivolatile organic compounds ("SVOCs"), metals, polychlorinated biphenyls ("PCBs"), and pesticides.

#### 3.2 Test Pits

In July 2008, Roux Associates oversaw three test pits excavated to support specific sheeting and shoring design elements of the Site remediation.

One test pit was excavated at the far northeast corner of the Site, adjacent to the storage center. This test pit was excavated to approximately five feet bls. In general, soil appeared to be Fill material consisting of sand and silt with cobble and boulder sized rock and concrete. Groundwater was not encountered in this excavation.

A second test pit was excavated in the area of the former USTs. This test pit was excavated to approximately seven feet bls. In general soil appeared to be Fill material consisting of gravel and minor amounts of fines. Groundwater was encountered in this excavation at a depth of approximately four feet. This was assumed to be a locally high water table due to the very conductive gravel compared to underlying clay and fine sand and a significant amount of rainfall that occurred less than a week prior to excavation. A slight petroleum sheen was observed on the water. Excavation of the second test pit was ceased due to the loose nature of the saturated gravel and a strong gasoline odor that was coming from the excavation.

A third test pit was excavated adjacent to the former location of the southern most pump island. This area was selected due to the gravel cover as it did not require removal of the concrete surface that is across most of the southern portion of the Site. However, the area was also underneath the former gasoline station canopy and the reach of the excavator was therefore limited. This test pit was excavated to approximately six feet bls. Groundwater was not encountered in this excavation.

#### 3.3 Soil Vapor Sampling

Two soil vapor samples were collected from the Site (SV-201 and SV-202). SV-201 was collected adjacent to MW-1, a monitoring well installed by Delta during a previous Site Investigation that identified concentrations of VOCs in groundwater. SV-202 was collected at the location of the former car wash. The soil vapor samples were collected from temporary soil vapor collection points installed to approximately three feet bls. At each location a Geoprobe rod was advanced to approximately three feet bls and inert tubing was installed near the bottom

of the rod. Clean sand was used to back fill around the tubing as the rod was removed from the hole. The surface of the temporary point was sealed with clay.

At each location, sampling tubing was connected to a disposable three-way stopcock. Tubing from one of the stopcock ports lead to a vacuum pump and tubing from the other stopcock port lead to a pre-evacuated six-liter Summa canister. Initially, the valve leading to the Summa canister was closed and the valve leading to the vacuum pump was open allowing the soil vapor sampling probe to be purged of approximately three tubing volumes using the vacuum pump set at a rate equal to or less than 0.2 liters per minute. During purging, the sampling probe was covered with an enclosure that was flooded with helium tracer gas. The purge vapor was screened for helium as a quality assurance/quality control measure to verify that the soil vapor sample was not compromised by inadvertent introduction of ambient air into the sample.

Following purging, the valve leading to the pump was closed, the pump turned off, and the valve leading to the Summa canister was opened. The soil vapor sample was collected in a pre-evacuated six-liter Summa canister with a flow-controlling regulator over a 1-hour period. Once the Summa canister was filled, the valve on the canister was closed and the canister disconnected from the sampling tubing.

One ambient air sample was collected concurrently with the soil vapor samples, also in a preevacuated six-liter Summa canister with a flow-controlling regulator over a one-hour period. Following sample collection, the tubing was removed from the ground.

Soil vapor and air samples were sent to an Environmental Laboratory Approval Program ("ELAP") certified laboratory and analyzed for VOCs using USEPA method TO-15.

#### 3.4 Groundwater Sampling

Six groundwater samples were collected during the RI from six soil borings (SB-101 to SB-105 and SB-107). An attempt to collect groundwater from SB-106 was unsuccessful due to poor recovery of groundwater. Of these 6 samples, one was located hydraulically upgradient (SB-107W), and two were located offsite hydraulically downgradient (SB-104W and SB-105W). Hydraulic gradient was determined by Delta during previous Site investigations.

At each sampling location, a temporary one-inch diameter PVC screen was installed to the bottom of the soil boring advanced to collect soil samples. Groundwater samples were collected using a peristaltic pump at low-flow evacuation rates of 0.1 to 0.5 liters per minute following a purge of one to three well volumes. Following sample collection, the PVC was removed from the ground.

Although flow rates were adjusted to minimize drawdown and maximize sample recovery, poor groundwater recovery prevented analysis of all parameters at each location. Groundwater samples were analyzed for VOCs and in most cases SVOCs, metals, PCBs, and pesticides as summarized in Table 1.

#### 3.5 Laboratory Analyses

All soil and groundwater samples selected for analysis were transported to Hampton Clarke Veritech Laboratories (New York State Department of Health "NYSDOH" Certification Number 11408) of Fairfield, NJ and analyzed as described above. Air and soil vapor samples were subcontracted to TestAmerica Laboratories of South Burlington, Vermont (NYSDOH Certification Number 10391).

#### 4.0 PRESENTATION OF ANALYTICAL RESULTS

The results summarized in this section include results from the RI performed between June 2008 and July 2008. Analytical data is attached on diskette as Appendix B.

Analytical results for onsite soil samples were compared to NYSDEC Unrestricted Use Soil Cleanup Objectives ("SCOs") for the Protection of Public Health and Restricted Use SCOs for Residential Properties presented in 6 NYCRR Subpart 375-6. These SCOs were selected based on the intended and reasonably anticipated future use of the Site, as well as the anticipated BCP cleanup tracks for soil remediation that will be evaluated as part of the Remedial Action Work Plan.

Analytical results for groundwater samples were compared to the NYSDEC Ambient Water Quality Standards and Guidance Values ("AWQSGVs"). Presented in the June 1998 Division of Water Technical and Operational Guidance Series (1.1.1) – Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, and an April 2000 Addendum to the June 1998 Division of Water Technical and Operational Guidance Series.

NYSDEC or NYSDOH standards or guidance values for soil vapor are not available and therefore, these analytical results are presented for review without comparison.

#### 4.1 Soil Analytical Results

All soil samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, PCBs, and pesticides. Analytical results for these compounds are summarized on Table 2 through Table 6, respectively.

Ten VOCs (acetone, benzene, n-butylbenzene, ethylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, toluene, m&p xylenes, and o-xylene), one SVOC (naphthalene), and six metals (chromium, copper, lead, mercury, nickel, and zinc) were identified in at least one soil boring at concentrations above NYSDEC Sub-part 375-6 unrestricted use standards (Figure 3). There were no additional compounds detected above NYSDEC unrestricted use standards in any soil boring.

Seven VOCs (benzene, ethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, toluene, m&p xylenes, and o-xylene), and one metal (lead) were identified in soil boring SB-106 at concentrations above NYSDEC Sub-part 375-6 restricted residential use standards (Figure 4). Two metals (copper and lead) were also detected at concentrations above NYSDEC restricted residential use standards in soil boring SB-101. There were no additional compounds detected above NYSDEC unrestricted use standards in any soil boring.

A review of soil quality data obtained during the RI indicated that soil ranging from surface to approximately 15 feet bls across the entire Site is impacted by gasoline related compounds and some heavy metals. The highest concentrations of these contaminants, those concentrations above restricted residential standards, are primarily focused in the area of the former USTs.

Based on the information obtained as part of the RI, the probable source of the VOC contamination was related to the USTs and piping associated with the historic use of the Site as a gasoline station. The most probable source of the heavy metals contamination is the historic fill located at the Site.

#### 4.2 Soil Vapor Analytical Results

Soil vapor and air samples collected during the RI were analyzed for VOCs using USEPA method TO 15. A summary of analytical results for soil vapor samples collected as part of the Roux Associates RI is presented as Table 7. Gasoline related VOCs were detected at concentrations above concentrations in ambient air.

In addition, strong gasoline odors were detected during excavation of the test pit in the former UST area.

#### 4.3 Groundwater Analytical Results

Groundwater samples SB-102W through SB-105W were analyzed for VOCs, SVOCs, metals, PCBs, and pesticides. Groundwater samples SB-101W and SB-107W were analyzed for VOCs only and VOCs and SVOCs, respectively, due to insufficient sample volume. Summaries of VOCs, SVOCs, metals, PCBs, and pesticides are presented as Table 8 through Table 12 respectively.

Nine VOCs (acetone, benzene, ethylbenzene, MTBE, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, toluene, m&p xylenes, and o-xylene), one SVOC (naphthalene), eight metals (arsenic, beryllium, chromium, copper, lead, manganese, nickel, and sodium) were identified at concentrations above NYSDEC AWQSGV in at least one groundwater sample (Figure 5). At least one compound was detected above NYSDEC AWQSGV in every sample. There were no additional compounds detected above NYSDEC unrestricted use standards in any groundwater sample.

Concentrations of Total BTEX compounds (benzene, toluene, ethylbenzene, and xylenes) ranged from  $1.5 \,\mu\text{g/L}$  in downgradient sample SB-105W to  $40,470 \,\mu\text{g/L}$  in upgradient sample SB-107W. Onsite groundwater samples (SB-107W is actually on the far upgradient property boundary) ranged from 391  $\,\mu\text{g/L}$  (SB-103W) to  $4,710 \,\mu\text{g/L}$  (SB-101W).

A review of groundwater quality data indicates that groundwater across the entire Site is impacted by gasoline related compounds. Groundwater impacted by VOCs also extends offsite toward the north along Southern Boulevard.

#### 5.0 QUALITATIVE EXPOSURE ASSESSMENT

The objective of the qualitative exposure assessment is to describe how human and environmental receptors may be exposed to Site contaminants based upon the Site-specific conditions and to assess whether there are any complete or potentially complete exposure pathways.

As discussed above, the contaminants of concern (COCs) at the Site include petroleum related VOCs and to a lesser extent metals. The petroleum related VOCs were detected in soil and /or groundwater at concentrations exceeding their respective NYSDEC standards or guidance values. In addition, petroleum related VOCs were identified in soil vapor at concentrations above ambient air concentrations. The NYSDEC Class GA AWQSGVs were developed to be protective of public health based upon consideration of groundwater as a potential source of drinking water. This exposure scenario is not applicable to the Site given the current land use and the reasonably anticipated land use at the Site. As specified in ECL Article 27-1415(2), the exposure assessment should consider the current conditions, as well as the reasonably anticipated future land use of the Site and the affected offsite areas, and the reasonably anticipated future groundwater use.

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: (1) a contaminant source; (2) contaminant release and transport mechanisms; (3) a receptor population; (4) a point of exposure; and (5) a route of exposure. The following paragraphs provide an overview discussion of exposure pathways that may potentially exist associated with the Site.

#### **Contaminant Sources**

The probable sources of contamination in soil and groundwater at the Site were spills or leaks from former clusters of USTs containing petroleum and direct discharge to the ground associated with historical operations of the Site that included vehicular maintenance.

#### Contaminant Release and Transport Mechanisms

The contaminants at the Site exist in the form of residual material adsorbed to soil particles in the saturated and unsaturated zones and compounds dissolved in groundwater. The leaching of

contaminants from soil serves as an ongoing source of contamination to groundwater beneath portions of the Site. In addition, VOCs are migrating through volatilization of compounds into soil vapor.

#### **Receptor Population**

The potential onsite receptors include occupational workers, construction workers, visitors, or trespassers. Future onsite receptors are expected to include also residents, guests, and retail customers/workers based on the potential future use of the property. The potential offsite receptors include offsite workers, visitors, residents, and trespassers.

#### Potential Points and Routes of Exposure

Contaminated soil is limited to specific areas of the Site and at depths below the immediate surface. However, there is the potential for direct exposure to contaminated soil by anyone digging in the contaminated area.

The Site and surrounding community are supplied by public sources of drinking water which meets all State and Federal standards for drinking water quality. As such, there is no potential for exposure to site contaminants from the public sources of drinking water. Although it has not been conclusively verified, it is highly unlikely that there are any private wells located near the Site.

There is no potential for migration of VOCs into indoor air because there are currently no existing buildings onsite. If buildings are constructed on the Site in the future (without source removal prior to construction), site workers, or future residents, guests, or students could be exposed to contaminants via the indoor air inhalation route of exposure.

#### 6.0 CONCLUSIONS AND RECOMMENDATIONS

Roux Associates has completed a RI of soil, groundwater, and soil vapor associated with the release of gasoline at 1800 Southern Boulevard, Bronx, New York. The RI was performed in June 2008 and July 2008. The investigation included one round of soil, groundwater and soil vapor sampling, during which seven soil borings were completed, two soil vapor samples were collected, and six temporary monitoring wells were sampled.

The results of the investigation indicated that soil across the Site is impacted with petroleum related compounds and some heavy metals, primarily in the immediate vicinity of the former UST area.

Associated with the impacted soil are relatively high concentrations of dissolved VOCs in underlying groundwater. Contaminated groundwater extends offsite toward the north along Southern Boulevard.

Although soil vapor concentrations show some gasoline related compounds above ambient air concentrations, and test pit activities resulted in gasoline odors, there are currently no existing buildings onsite to evaluate the potential for intrusion.

Roux Associates believes that enough data has been collected to prepare a Remedial Action Work Plan under the Brownfield Cleanup Program for the Site itself. Additional investigation is recommended to fully delineate offsite impacts to soil along the western boundary of the Site as well as the downgradient extent of impacted groundwater. As that additional information is offsite, it will not impact the preparation of a Remedial Action Work Plan for the Site.

Table 1. Summary of Sampling Locations, 1800 Southern Boulevard, Bronx, New York

ample Designation	Sample Matrix	Sample Date	Sample Depth	Analyses Performed
		<u> </u>	(feet below land surface)	)
SB-101	soil	06/12/08	0 - 2.5	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-101	soil	06/12/08	12.5 - 15	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-102	soil	06/12/08	12.5 - 15	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-103	soil	06/12/08	12.5 - 15	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-104	soil	06/12/08	12.5 - 15	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-105	soil	06/12/08	12.5 - 15	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-106	soil	06/12/08	7.5 - 10	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-107	soil	06/12/08	12.5 - 15	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-101W	groundwater	06/12/08	approximately 10	VOCs (poor recovery)
SB-102W	groundwater	06/12/08	approximately 10	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-103W	groundwater	06/12/08	approximately 10	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-104W	groundwater	06/12/08	approximately 10	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-105W	groundwater	06/12/08	approximately 10	VOCs, SVOCs, Metals, Pesticides, PCBs
SB-107W	groundwater	06/12/08	approximately 10	VOCs, SVOCs (poor recovery)
SV-201	soil vapor	06/12/08	3.0	VOCs
SV-202	soil vapor	06/12/08	3.0	VOCs
AS-203	ambient air	06/12/08		VOCs

VOCs: Volatile Organic Compounds SVOCs: Semivolatile Organic Compounds

PCBs: Biphenyls

Table 2. Summary of Volatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

Parameter	Part 375 Unrestricted Use	Part 375 Restricted Residential	Sample Designation: Sample Date:	SB-101 06/12/08	SB-101 06/12/08	SB-102 06/12/08	SB-103 06/12/08	SB-104 06/12/08	SB-105 06/12/08	SB-106 06/12/08
oncentrations in µg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bls):	0-2.5	12.5-15	12.5-15	12.5-15	12.5-15	12.5-15	7.5-10
necitations in AB xB)	Bon Cicular Cojectives	Bon Cleanup Objectives	Sample Depth (At bis).	0 2.5	12.5 15	12,5 15	12.5-15	12.5 15	12.5 15	7.5 10
1,1,1-Trichloroethane	680	100000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
1,1,2,2-Tetrachloroethane				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
1,1,2-Trichloroethane				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
1,1-Dichloroethane	270	26000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
1, I - Dichloroethene	330	100000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
1,2,3-Trichloropropane		~=		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
I,2,4-Trimethylbenzene	3600	52000		1.1 U	3.2	1100	1.3 U	120 U	1.2 U	.2.33 (00000).
1.2-Dichlorobenzene	1100	100000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
1,2-Dichloroethane	20	3100		5.6 U	5.7 U	27 U	6.4 U	59 U	6 U	1100 U
1,2-Dichloropropane				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
1,3,5-Trimethylbenzene	8400	52000		1.1 U	1.1 U	470	1.3 U	120 U	1.2 U	3811(00)(03
1,3-Dichlorobenzene	2400	49000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
1,3-Dichloropropane	=-			5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
1,4-Dichlorobenzene	1800	13000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
1,4-Dioxane	100	13000		280 U	290 U	1400 U	320 U	5900 U	300 U	110000 L
2-Butanone (MEK)	120	100000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
2-Chloroethylvinylether				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
2-Hexanone				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
4-Isopropyltoluene				1.1 U	1.1 U	66	3.3	710	1,2 U	5800
4-Methyl-2-pentanone				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Acetone	50	100000		30	5.7 G	170	78	590 U	30 U	11000 U
Acrolein	<i>J</i> 0			28 U	29 U	140 U	32 U	590 U	30 U	11000 U
Acrylonitrile				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Benzene	60	4800		1.1 U	4.9	5.5 U	1.3 U	59 U	1.2 U	EF 23000
Bromodichloromethane		4800		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Bromoform		~~		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Bromomethane				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Carbon disulfide				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
	760	2400		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Carbon tetrachloride						27 U	6.4 U	120 U	6 U	2200 U
Chlorobenzene	1100	100000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Chloroethane		4000		5.6 U	5.7 U			120 U	6 U	2200 U
Chloroform	370	49000		5.6 U	5.7 U	27 U 27 U	6.4 U 6.4 U	120 U	6 U	2200 U
Chloromethane		10000		5.6 U	5.7 U			-	6 U	2200 U
cis-1,2-Dichloroethene	250	100000		5.6 U	5.7 U	27 U	6.4 U	120 U		2200 U
cis-1,3-Dichloropropene		••		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Dibromochloromethane				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U 6 U	2200 U
Dichlorodifluoromethane		41000		5.6 U	5.7 U	27 U	6.4 U	120 U		4480 10000000000000000000000000000000000
Ethylbenzene	1000	41000		1.1 U	2.6	280	3.1	920	1.2 U	77000
Freon 113				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Isopropylbenzene				1.1 U	1.1 U	81	29	970	1.2 U	10000
m+p-Xylene	260	100000		2.2 U	4.3	460	5.1	240 U	2.4 U	340000
Methylene chloride	50	100000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
MTBE	930	100000		1.1 U	220	5.5 U	1.3 U	120 U	1.2 U	2200 U
n-Butylbenzene	12000	100000		1.1 U	1.1 U	150	17	2000	1.2 U	30000
n-Propylbenzene	3900	100000		1.1 U	1.1 U	170	58	2800	1.2 U	38000
o-Xylene	260	100000		1.1 U	1.1 U	280	1.4	120 U	1.2 U	130000
sec-Butylbenzene	11000	100000		1.1 U	1.1 U	30	9.4	720	1.2 U	5900
Styrene	<b></b>			5.6 U	5.7 U	27 U	6.4 U	120 U	<b>6</b> U	2200 U

Table 2. Summary of Volatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

Parameter	Part 375 Unrestricted Use	Part 375 Restricted Residential	Sample Designation: Sample Date:	SB-101 06/12/08	SB-101 06/12/08	SB-102 06/12/08	SB-103 06/12/08	SB-104 06/12/08	SB-105 06/12/08	SB-106 06/12/08
ncentrations in µg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bls):	0-2.5	12.5-15	12.5-15	12.5-15	12.5-15	12.5-15	7.5-10
t-Butyl Alcohol				28 U	400	140 U	32 U	590 U	30 U	11000 U
t-Butylbenzene	5900	100000		1.1 U	1.1 U	5.5 U	1.3 U	120 U	1.2 U	2200 U
Tetrachloroethene	1300	19000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Toluene	700	100000		1.4	2	5.9	2	120 U	1.2 U	120900
trans-1,2-Dichloroethene	190	100000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
trans-1,3-Dichloropropene				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Trichloroethene	470	21000		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Trichlorofluoromethane				5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Vinyl chloride	20	900		5.6 U	5.7 U	27 U	6.4 U	120 U	6 U	2200 U
Naphthalene	12000	100000								

Bold - Concentration exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives

Shaded cells exceed NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives

-- - No standard available

μg/kg - micrograms per kilogram

U - Analyte was not detected at or above the reporting limit

Table 2. Summary of Volatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

Parameter	Part 375 Unrestricted Use	Part 375 Restricted Residential	Sample Designation: Sample Date:	SB-107 06/12/08	SB-1 02/28/03	SB-2 02/28/03	SB-3 02/28/03	SB-4 02/28/03	SB-5 02/28/03	SW-1 2003
ncentrations in µg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bis):	12.5-15	6-8	6-8	5-6	8-9	5-6	7
1,1,1-Trichloroethane	680	100000		130 U						
1,1,2,2-Tetrachloroethane				130 U						
1,1,2-Trichloroethane	 			130 U						
1.1-Dichloroethane	270	26000		130 U						
1,1-Dichloroethene	330	100000								
•	550	100000		130 U						
1,2,3-Trichloropropane	3600			130 U	67.11	26.11	251	122		EN AT BANKS
1,2,4-Trimethylbenzene		52000		15000	57 U	26 U	2.5 J	132	6.5 U	5150002
1,2-Dichlorobenzene	1100 20	100000		130 U						
1,2-Dichloroethane	20	3100		64 U						
1,2-Dichloropropane				130 U		25.11		24.4		
1,3,5-Trimethylbenzene	8400	52000		4800	57 U	26 U	6.9 U	36.6	6.5 U	143000 L
1,3-Dichlorobenzene	2400	49000		130 U						
1,3-Dichloropropane				130 U						
1,4-Dichlorobenzene	1800	13000		130 U						
1,4-Dioxane	100	13000		6400 U						
2-Butanone (MEK)	120	100000		130 U						
2-Chloroethylvinylether	<del></del>			130 U						
2-Hexanone				130 U						
4-Isopropyltoluene	<del></del>			230	326	26 U	2.1 J	27.2	6.5 U	5020 J
4-Methyl-2-pentanone				130 U						
Acetone	50	100000		640 U						
Acrolein				640 U						
Acrylonitrile				130 U						
Benzene	60	4800		64 U	11 U	5.1 U	124	1.8	1.3 U	930 J
Bromodichloromethane	<del></del>			130 U						
Bromoform				130 U						
Bromomethane				130 U						
Carbon disulfide				130 U						
Carbon tetrachloride	760	2400		130 U						
Chlorobenzene	1100	100000		130 U						
Chloroethane				130 U						
Chloroform	370	49000		130 U						
Chloromethane		<del></del>		130 U						
cis-1,2-Dichloroethene	250	100000		130 U						
cis-1,3-Dichloropropene	230 			130 U						
Dibromochloromethane				130 U						
Dichlorodifluoromethane										
	1000	41000		130 U	11.77	6 1 11	15.0	0.1	1 2 11	Avance
Ethylbenzene		41000		3900	11 U	5.1 U	15.9	9.1	1.3 U	71100 #
Freon 113				130 U	1.500	2- 4				20500
Isopropylbenzene		10000		870	1560	35.4	6.6 J	6.7 J	6.5 U	20500
m+p-Xylene	260	100000		14000	23 U	10 U	7.4	73.1	2.6 U	=2332000)
Methylene chloride	50	100000		130 U						
MTBE	930	100000		130 U	11U	5.1 U	50.3	0.7	1.3 U	3510
n-Butylbenzene	12000	100000		130 U	2610	33.3	6.9 U	18.7	6.5 U	24000
n-Propylbenzene	3900	100000		2900	1940	155	4.7 J	14.2	6.5 U	86200
o-Xylene	260	100000		6200						
sec-Butylbenzene	11000	100000		590	2120	60.6	6.9 U	9.3	6.5 U	12100
Styrene				130 U						

Table 2. Summary of Volatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

Parameter	Part 375 Unrestricted Use	Part 375 Restricted Residential	Sample Designation: Sample Date:	SB-107 06/12/08	SB-1 02/28/03	SB-2 02/28/03	SB-3 02/28/03	SB-4 02/28/03	SB-5 02/28/03	SW-1 2003
ncentrations in μg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bls):	12.5-15	6-8	6-8	5-6	8-9	5-6	7
t-Butyl Alcohol				640 U						
t-Butylbenzene	5900	100000		130 U	1580	26 U	6.9 U	7.2 U	6.5 U	
Tetrachloroethene	1300	19000		130 U						
Toluene	700	100000		170	11 U	5.1 U	5.4	2.1	1.3 U	11000
trans-1,2-Dichloroethene	190	100000		130 U						
trans-1,3-Dichloropropene				130 U						
Trichloroethene	470	21000		130 U						
Trichlorofluoromethane				130 U						
Vinyl chloride	20	900		130 U						
Naphthalene	12000	100000			542	26 U	2.1	131	6.5 U	40700

U - Analyte was not detected at or above the reporting limit

Bold - Concentration exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives

Shaded cells exceed NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives

<sup>-- -</sup> No standard available

μg/kg - micrograms per kilogram

ft bls - Feet below land surface

Table 2. Summary of Volatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

Parameter	Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Restricted Residential Soil Cleanup Objectives	Sample Designation: Sample Date: Sample Depth (ft bls):	SW-2 2003 7	SW-3 2003 7	SW-4 2003 7	SW-5 2003 7	SW-6 2003 7	B-1 2003 12	B-2 2003 12
icentiations in µg/kg/	Son Cicular Cojectives	Son Cleanup Objectives	Sample Depth (It bis).							
1,1,1-Trichloroethane	680	100000								
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane	<b></b>	~								
1,1-Dichloroethane	270	26000								
1,1-Dichloroethene	330	100000								
,2,3-Trichloropropane										
1,2,4-Trimethylbenzene	3600	52000		280000	24500	102000	298	72.8	1760	5000
,2-Dichlorobenzene	1100	100000								
1,2-Dichloroethane	20	3100								
1,2-Dichloropropane		<del></del>								
,3,5-Trimethylbenzene	8400	52000		- 101000	8870	32300	170	30.5	448	1560
1,3-Dichlorobenzene	2400	49000								
,3-Dichloropropane		===								
1,4-Dichlorobenzene	1800	13000								
1,4-Dioxane	100	13000								
2-Butanone (MEK)	120	100000								
2-Chloroethylvinylether										
2-Hexanone		 								
4-Isopropyltoluene		<del></del>		3220 J	309	926	23.1 J	1.1 J	270 U	79.8
4-Isopropynoruene 4-Methyl-2-pentanone	<del></del>			J220 J	307	920	23.13	1.13	2700	77.0
• •	50	100000								
Acetone Acrolein										
	<b></b>	<b></b>								
Acrylonitrile		4000		4020	1/2	9/0	450	1 2 11	34.1 J	55 L
Benzene	60	4800		4920	165	868	450	1.2 U	34.1 J	33 (
Bromodichloromethane	<del></del>									
Bromoform										
Bromomethane	~-									
Carbon disulfide	 									
Carbon tetrachloride	760	2400								
Chlorobenzene	1100	100000								
Chloroethane										
Chloroform	370	49000								
Chloromethane										
cis-1,2-Dichloroethene	250	100000								
cis-1,3-Dichloropropene	<del></del>									
Dibromochloromethane										
Dichlorodifluoromethane										
Ethylbenzene	1000	41000		53700	532	9080	157	7.4	146	591
Freon 113										
lsopropylbenzene	<del></del>			11300	294	2120	79.3	2.1 J	270 U	203
m+p-Xylene	260	100000		348000	9250	105000	788	74.8	828	368
Methylene chloride	50	100000								
MTBE	930	100000		42000	433	23800	9670	25	389	216
n-Butylbenzene	12000	100000		12000	270 U	600 U	73.2	9.1	117 J	340
n-Propylbenzene	3900	100000		48700	1250	7820	218	6.2	178 J	880
o-Xylene	260	100000								
sec-Butylbenzene	11000	100000		5990 J	346	1320	29.2 J	5.8 U	270 U	145
Styrene										

Table 2. Summary of Volatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

	Part 375	Part 375	Sample Designation:		SW-3	SW-4	SW-5	SW-6	B-1	B-2
Parameter	Unrestricted Use	Restricted Residential	Sample Date:	2003	2003	2003	2003	2003	2003	2003
ncentrations in μg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bls):	7	7	7	7	7	12	12
t-Butyl Alcohol	***									
t-Butylbenzene	5900	100000								
Tetrachloroethene	1300	19000								
Toluene	700	100000		118000	877	10700	112	8.1	108	53.6 J
trans-1,2-Dichloroethene	190	100000								
trans-1,3-Dichloropropene										
Trichloroethene	470	21000								
Trichlorofluoromethane										
Vinyl chloride	20	900								
Naphthalene	12000	100000		27500	3580	8980	65	35.6	595	768

Bold - Concentration exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives

Shaded cells exceed NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives

-- - No standard available

μg/kg - micrograms per kilogram ft bls - Feet below land surface

U - Analyte was not detected at or above the reporting limit

Table 2. Summary of Volatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

Parameter	Part 375 Unrestricted Use	Part 375 Restricted Residential	Sample Designation: Sample Date:	B-3 2003	B-4 2003	P-1 2003	P-2 2003	P-3 2003	P-4 2003	P-5 2003
ncentrations in µg/kg)	=		Sample Depth (ft bls):	12	12	2003	2003	2003	2003	2003
mochinations in hg/kg)	Join Cicanup Objectives	DOI CICARRED ODJECTIAES	Gampie Deptii (it Dis):							
1,1,1-Trichloroethane	680	100000								
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane	270	26000								
1,1-Dichloroethene	330	100000								
1,2,3-Trichloropropane										
1,2,4-Trimethylbenzene	3600	52000		3030	185	2.4 J	5.9 U	9.4	1150	9450
1,2-Dichlorobenzene	1100	100000								
1,2-Dichloroethane	20	3100								
1,2-Dichloropropane										
1,3,5-Trimethylbenzene	8400	52000		1320	97.8	14.9	5.9 U	4.8 J	4280	7860
1,3-Dichlorobenzene	2400	49000								
1,3-Dichloropropane										
1,4-Dichlorobenzene	1800	13000								
1,4-Dioxane	100	13000								
2-Butanone (MEK)	120	100000								
2-Chloroethylvinylether										
2-Hexanone										
4-Isopropyltoluene	<b></b>			11.7	2.7 J	6.3 U	5.9 U	5.3 U	159 J	213 J
4-Methyl-2-pentanone		<b></b>								
Acetone	50	100000								
Acrolein										
Acrylonitrile										
Benzene	60	4800		1.4	2.6	1.3 U	1.2 U	2	16	109
Bromodichloromethane	==				2.0	1.5 0		_		
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride	760	2400								
Chlorobenzene	1100	100000								
Chloroethane										
Chloroform	370	49000								
Chloromethane										
cis-1,2-Dichloroethene	250	100000								
cis-1,3-Dichloropropene										
Dibromochloromethane	***									
Dichlorodifluoromethane										
Ethylbenzene	1000	41000		39.5	5.1	1.6	1.2 U	1.4	205	499
Freon 113				37.5	J.1	1.0	1.2 0	•••	205	133
lsopropylbenzene	<del></del>			25.9	4.7 J	2.8 J	5.9 U	5.3 U	270 U	496
m+p-Xylene	260	100000	,	693	61.4	8.5	2.4 U	19.2	2050	1460
Methylene chloride	50	100000		073	01.4	0.5	2.7 0	17.2	2030	ATOU
MTBE	930	100000		1440	2570	21.4	11.9	31.3	177	99.7
n-Butylbenzene	12000	100000		1 <b>440</b> 229	52.7	3.4 J	5.9 U	5.3 U	270 U	910
	3900			102	52.7 15.9	3.4 J 2.7 J	5.9 U	5.3 U	92.6 J	1380
n-Propylbenzene		100000		102	13.9	2.1 J	3. <del>9</del> U	J.3 U	94.0 J	1300
o-Xylene	260 11000	100000		25.6	60	101	5011	5211	56 6 1	681
sec-Butylbenzene	11000	100000		25.6	6.8	1.8 J	5.9 U	5.3 U	56.6 J	001

Table 2. Summary of Volatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

Parameter oncentrations in µg/kg)	Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Restricted Residential Soil Cleanup Objectives	Sample Designation: Sample Date: Sample Depth (ft bls):	B-3 2003 12	B-4 2003 12	P-1 2003 2	P-2 2003 2	P-3 2003 2	P-4 2003 2	P-5 2003 2
t-Butyl Alcohol										
t-Butylbenzene	5900	100000								
Tetrachloroethene	1300	19000								
Toluene	700	100000		34	7	1.3 U	1.2 U	1.1 U	1270	194
trans-1,2-Dichloroethene	190	100000								
trans-1,3-Dichloropropene										
Trichloroethene	470	21000								
Trichlorofluoromethane										
Vinyl chloride	20	900								
Naphthalene	12000	100000		391	57.8	6.3 U	5.9 U	5.3 U	399	1120

Bold - Concentration exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives
Shaded cells exceed NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives

-- - No standard available

μg/kg - micrograms per kilogram

U - Analyte was not detected at or above the reporting limit

Table 2. Summary of Volatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

Dosamatas	Part 375 Unrestricted Use	Part 375 Restricted Residential	Sample Designation:	P-6	P-7	P-8
Parameter			Sample Date:	2003	2003	2003
ncentrations in µg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bls):		2	2
1,1,1-Trichloroethane	680	100000				
1,1,2,2-Tetrachloroethane						
1,1,2-Trichloroethane						
1,1-Dichloroethane	270	26000				
1,1-Dichloroethene	330	100000				
1,2,3-Trichloropropane	<b></b>					
1,2,4-Trimethylbenzene	3600	52000		5.8	12900	82200
1,2-Dichlorobenzene	1100	100000				
1,2-Dichloroethane	20	3100				
1,2-Dichloropropane						
1,3,5-Trimethylbenzene	8400	52000		5.8	2750	26500
1,3-Dichlorobenzene	2400	49000		0.0	2.00	20000
1,3-Dichloropropane						
1,4-Dichlorobenzene	1800	13000				
1,4-Dioxane	100	13000				
2-Butanone (MEK)	120	100000				
2-Chloroethylvinylether						
2-Hexanone						
4-Isopropyltoluene				5.8	38 U	948 J
4-Methyl-2-pentanone				5.0	30 0	740 3
Acetone	50	100000				
Acrolein	J0 					
Acrylonitrile						
Benzene	60	4800		1.7	7.7 U	579
Bromodichloromethane				1.7	7.7 0	317
Bromoform		**				
Bromomethane						
Carbon disulfide	<del></del>					
Carbon tetrachloride	760	2400				
Chlorobenzene	1100	100000				
Chloroethane	1100					
Chloroform	370	49000				
Chloromethane		49000				
cis-1,2-Dichloroethene	250	100000				
cis-1,3-Dichloropropene	230					
Dibromochloromethane		 				
Dichlorodifluoromethane						
Ethylbenzene	1000	41000		1.2 U	127	9669
Freon 113	7000	41000		1.2 0	127	9660
		<del></del>	·	£ 0	110	4120
lsopropylbenzene		1,0000		5.8	119	4120
m+p-Xylene	260 50	100000		2 J	2260	68500
Methylene chloride MTBE	930	100000		177	75.2	150
		100000		177	75.3	458 3630
n-Butylbenzene	12000	100000		5.8	38 U	3630
n-Propylbenzene	3900	100000		5.8	503	8540
o-Xylene	260	100000				1100 1
sec-Butylbenzene	11000	100000		5.8	112	1190 J

Table 2. Summary of Volatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

	Part 375	Part 375	Sample Designation:	P-6	P-7	P-8
Parameter	Unrestricted Use	Restricted Residential	Sample Date:	2003	2003	2003
oncentrations in µg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bis):	2	2	2
t-Butyl Alcohol						
t-Butylbenzene	5900	100000				
Tetrachloroethene	1300	19000				
Toluene	700	100000		1.2 U	52.2	3920
trans-1,2-Dichloroethene	190	100000				
trans-1,3-Dichloropropene						
Trichloroethene	470	21000				
Trichlorofluoromethane						
Vinyl chloride	20	900				
Naphthalene	12000	100000		5.8	2790	10400

Shaded cells exceed NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives

U - Analyte was not detected at or above the reporting limit

Bold - Concentration exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives

<sup>-- -</sup> No standard available

μg/kg - micrograms per kilogram

ft bis - Feet below land surface

Table 3. Summary of Semivolatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

	Part 375	Part 375	Sample Designation:	SB-101	SB-101	SB-102	SB-103	SB-104	SB-105	SB-106	SB-107
Parameter	Unrestricted Use	Restricted Residential	Sample Date:	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08
(Concentrations in µg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bls):	0-2.5	12.5-15	12.5-15	12.5-15	12.5-15	12.5-15	7.5-10	12.5-15
1.2.4 Trichlandhangana				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
1,2,4-Trichlorobenzene								78 U	79 U	750 U	85 U
1,2-Diphenylhydrazine				74 U	77 U	73 U	85 U				
2,2-oxybis (1-chloropropane)	<del></del>			74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
2,4,5-Trichlorophenol		==		74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
2,4,6-Trichlorophenol	<del></del>			74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
2,4-Dichlorophenol				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
2,4-Dimethylphenol				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
2,4-Dinitrophenol				370 U	380 U	370 U	430 U	390 U	400 U	3700 U	430 U
2,4-Dinitrotoluene				74 U	77 U	<b>73</b> U	85 U	78 U	79 U	750 U	85 U
2,6-Dinitrotoluene		~~		74 U	77 U	73 U	85 U	<b>78</b> U	<b>79</b> U	750 U	85 U
2-Chloronaphthalene				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
2-Chlorophenol				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
2-Methylnaphthalene		<del></del>		74 U	77 U	2600	85 U	4900	79 U	19000	1600
2-Methylphenol	330	100000		74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
2-Nitroaniline				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
2-Nitrophenol				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
3,3-Dichlorobenzidine				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
3-Nitroaniline				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
4,6-Dinitro-2-methylphenol				370 U	380 U	370 U	430 U	390 U	400 U	3700 U	430 U
	<del></del>			74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
4-Bromophenyl phenyl ether	~=	~-							79 U	750 U	85 U
4-Chloro-3-methylphenol				74 U	77 U	73 U	85 U	78 U			85 U
4-Chloroaniline				74 U	77 U	73 U	85 U	78 U	79 U	750 U	
4-Chlorophenyl phenyl ether		400000		74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
4-Methylphenol	330	100000		74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
4-Nitroaniline				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
4-Nitrophenol				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Acenaphthene	20000	100000		74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Acenaphthylene	100000	100000		89	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Aniline				74 U	77 U	73 U	85 U	78 U	<b>79</b> U	750 U	85 U
Anthracene	100000	100000		120	77 U	73 U	85 U	78 U	<b>79</b> U	750 U	85 U
Benzidine				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Benzo[a]anthracene	1000	1000		740	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Benzo[a]pyrene	1000	1000		710	77 U	<b>7</b> 3 U	85 U	78 U	79 U	750 U	85 U
Benzo[b]fluoranthene	1000	1000		910	77 U	<b>73</b> U	85 U	78 U	79 U	750 U	85 U
Benzo[g,h,i]perylene	100000	100000		420	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Benzo[k]fluoranthene	800	3900		280	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Benzoic acid				370 U	77 U	73 U	85 U	78 U	79 U	3700 U	85 U
Bis(2-chloroethoxy)methane				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Bis(2-chloroethyl)ether	<del></del>			74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Bis(2-ethylhexyl)phthalate	<del></del>			110	77 U	73 U	85 U	78 U	79 U	3200	85 U
Butylbenzyl phthalate				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Carbazole		 		74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
	1000	3900		730	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Chrysene		330		120	77 U	73 U 73 U	85 U	78 U	79 U	750 U	85 U
Dibenzo[a,h]anthracene	330							-			
Dibenzofuran	14000	59000		74 U	77 U	73 U	85 U	<u>78 U</u>	7 <u>9 U</u>	750 U	85 U

Table 3. Summary of Semivolatile Organic Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

<del></del>	Part 375	Part 375	Sample Designation:	SB-101	SB-101	SB-102	SB-103	SB-104	SB-105	SB-106	SB-107
Parameter	Unrestricted Use	Restricted Residential	Sample Date:	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08
(Concentrations in µg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bls):	0-2.5	12.5-15	12.5-15	12.5- <u>15</u>	12.5-15	12.5-15	7.5-10	12.5-15
Diethyl phthalate				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Dimethyl phthalate		<b>+-</b>		74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Di-n-butyl phthalate				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Di-n-octyl phthalate				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Fluoranthene	100000	100000		1100	77 U	73 U	85 U	78 U	<b>79</b> U	1600	85 U
Fluorene	30000	100000		74 U	77 U	73 U	85 U	78 U	<b>79</b> U	750 U	85 U
Hexachlorobenzene	330	1200		74 U	77 U	73 U	85 U	78 U	<b>79</b> U	750 U	85 U
Hexachlorobutadiene				74 U	77 U	73 U	85 U	78 U	<b>79</b> U	750 U	85 U
Hexachlorocyclopentadiene				370 U	380 U	370 U	430 U	390 U	400 U	3700 U	430 U
Hexachloroethane				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Indeno(1,2,3-cd)pyrene	500	500		340	77 U	73 U	85 U	78 U	79 U	750 U	85 U
lsophorone				74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Naphthalene	12000	100000		74 U	77 U	1800	85 U	2800	79 U	25000	3200
Nitrobenzene				74 U	77 U	73 U	85 U	78 U	<b>79</b> U	750 U	85 U
n-Nitrosodimethylamine				74 U	77 U	73 U	85 U	78 U	<b>79</b> U	750 U	85 U
n-Nitroso-di-n-propylamine				74 U	77 U	73 U	85 U	78 U	<b>79</b> U	750 U	85 U
n-Nitrosodiphenylamine				74 U	77 U	73 U	85 U	<b>78</b> U	<b>79</b> U	750 U	85 U
Pentachlorophenol	800	6700		370 U	380 U	370 U	430 U	390 U	400 U	3700 U	430 U
Phenanthrene	100000	100000		690	77 U	73 U	85 U	78 U	79 U	1900	85 U
Phenol	330	100000		74 U	77 U	73 U	85 U	78 U	79 U	750 U	85 U
Pyrene	100000	100000		1400	77 U	73 U	85 U	78 U	79 U	1700	85 U

U - Analyte was not detected at or above the reporting limit

Bold - Concentration exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives
Shaded cells exceed NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives

-- - No standard available

μg/kg - micrograms per kilogram

Table 4. Summary of Metals Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

	Part 375	Part 375	Sample Designation:	SB-101	SB-101	SB-102	SB-103	SB-104	SB-105	SB-106	SB-107
Parameter	Unrestricted Use	Restricted Residential	Sample Date:	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08
(Concentrations in mg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bls):	0-2.5	12.5-15	12.5-15	12.5-15	12.5-15	12.5-15	7.5-10	12.5-15
Aluminum				9700	6900	9800	10000	11000	4100	8500	20000
Antimony				36	2.3 U	2.2 U	2.6 U	2.4 U	2.4 U	15	2.6 U
Arsenic	13	16		6.1	2.3 U	2.2 U	2.9	2.4 U	2.4 U	4.5	2.6 U
Barium	350	400		270	65	95	90	59	31	150	240
Beryllium	7.2	72		0.67 U	0.69 U	0.66 U	0.77 U	0.71 U	0.71 U	0.67 U	0.77 U
Cadmium	2.5	4.3		0.67 U	0.69 U	0.66 U	0.77 U	0.71 U	0.71 U	0.67 U	0.77 U
Calcium				71000	2000	4700	2500	1700	1200 U	2300	2600
Chromium				21	20	26	29	50	12	21	61
Cobalt				6.3	8.6	12	11	15	3.9	6.9	18
Copper	50	270		280	27	32	49	39	8.6	270	56
Iron				16000	14000	20000	24000	20000	8000	20000	37000
Lead	63	400		580	5.7 U	7.4	6.4 U	10	6 U	900	18
Magnesium				5700	3200	5700	5700	8100	2100	2100	11000
Manganese	1600	2000		230	130	290	240	300	100	210	400
Mercury	0.18	0.81		0.7	0.096 U	0.092 U	0.11 U	0.098 U	0.099 U	0.18	0.11 U
Nickel	30	310		17	24	21	32	72	8.2	22	41
Potassium				1300	2500	3500	3600	1700	1700	1100	11000
Selenium	3.9	180		2 U	2.1 U	2 U	2.3 U	2.1 U	2.1 U	2 U	2.3 U
Silver	2	180		1.7 U	1.7 U	1.6 U	1.9 U	1.8 U	1.8 U	1.7 U	1.9 U
Sodium				280 U	290 U	270 U	320 U	290 U	300 U	280 U	320 U
Thallium				1.3 U	1.4 U	1.3 U	1.5 U	1.4 U	1.4 U	1.3 U	1.5 U
Vanadium				33	26	35	69	43	16	26	82
Zinc	109	10000		280	40	46	55	73	20	270	92

U - Analyte was not detected at or above the reporting limit

Bold - Concentration exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives

Shaded cells exceed NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives

-- - No standard available

mg/kg - milligrams per kilogram

Table 5. Summary of Polychlorinated Biphenyl Compounds Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

Analyte	Part 375 Unrestricted Use	Part 375 Restricted Residential	Sample Designation: Sample Date:	SB-101 06/12/08	SB-101 06/12/08	SB-102 06/12/08	SB-103 06/12/08	SB-104 06/12/08	SB-105 06/12/08	SB-106 06/12/08	SB-107 06/12/08
(Concentrations in μg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bls):	0-2.5	12.5-15	12.5-15	12.5-15	12.5-15	12.5-15	7.5-10	12.5-15
Aroclor-1016				28 U	29 U	27 U	32 U	29 U	30 U	28 U	32 U
Aroclor-1221				28 U	29 U	27 U	32 U	29 U	30 U	28 U	32 U
Aroclor-1232				28 U	29 U	27 U	32 U	29 U	30 U	28 U	32 U
Aroclor-1242				28 U	29 U	27 U	32 U	29 U	30 U	28 U	32 U
Aroclor-1248				28 U	29 U	27 U	32 U	29 U	30 U	28 U	32 U
Aroclor-1254				28 U	29 U	27 U	32 U	29 U	30 U	28 U	<b>32</b> U
Aroclor-1260				28 U	29 U	<b>27</b> U	32 U	29 U	30 U	28 U	32 U
Aroclor-1262				28 U	29 U	27 U	32 U	29 U	30 U	28 U	32 U
Aroclor-1268				28 U	29 U	27 U	32 U	29 U	30 U	28 U	32 U
Total PCBs:	100	1000		0	0	0	0	0	0	0	0

U- Analyte was not detected at or above the reporting limit

Bold - Concentration exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives
Shaded cells exceed NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives

-- - No standard available

μg/kg - micrograms per kilogram

Table 6. Summary of Pesticides Detected in Soil Samples, 1800 Southern Boulevard, Bronx, New York

	Part 375	Part 375	Sample Designation:	SB-101	SB-101	SB-102	SB-103	SB-104	SB-105	SB-106	SB-107
Parameter	Unrestricted Use	Restricted Residential	Sample Date:	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08
(Concentrations in μg/kg)	Soil Cleanup Objectives	Soil Cleanup Objectives	Sample Depth (ft bis):	0-2.5	12.5-15	12.5-15	12.5-15	12.5-15	12.5-15	7.5-10	12.5-15
4,4'-DDD	3.3	13000		14	2.9 U	2.7 U	3.2 U	2.9 U	3 U	2.8 U	3.2 U
4,4'-DDE	3.3	8900		8	2.9 U	2.7 U	3.2 U	2.9 U	3 U	2.8 U	3.2 U
4,4'-DDT	3.3	7900		20	2.9 U	2.7 U	3.2 U	2.9 U	3 U	2.8 U	3.2 U
Aldrin	5	97		5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
alpha-BHC	20	480		5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
beta-BHC	36	360		5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Chlordane				50 D	11 U	11 U	13 U	12 U	12 U	11 U	13 U
delta-BHC	40	100000		5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Dieldrin	5	200		5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Endosulfan I	2400	24000		5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Endosulfan II	2400	24000		5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Endosulfan sulfate	2400	24000		5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Endrin aldehyde				5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Endrin Ketone				5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Endrin	14	11000		5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
gamma-BHC (Lindane)	100	1300		5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Heptachlor epoxide				5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Heptachlor	42	2100		5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Methoxychlor				5.6 U	5.7 U	5.5 U	6.4 U	5.9 U	6 U	5.6 U	6.4 U
Toxaphe <u>ne</u>		<u></u>		28 U	29 U	27 U	32 U	29 U	30 U	28 U_	32 U _

U - Analyte was not detected at or above the reporting limit

Bold - Concentration exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives

Shaded cells exceed NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives

-- - No standard available

μg/kg - micrograms per kilogram ft bls - Feet below land surface

Table 7. Summary of Volatile Organic Compounds Detected in Soil Vapor Samples, 1800 Southern Boulevard., Bronx, New York

	Sample Designation:	AS-203	SV-201	SV-202
Parameter	Sample Date:	6/12/2008	6/12/2008	6/12/2008
(Concentrations in ug/m <sup>3</sup> )				
1,1,1-Trichloroethane		1.1 U	1.6 U	1.1 U
1,1,2,2-Tetrachloroethane		1.4 U	2.1 U	1.4 U
1,1,2-Trichloroethane		1.1 U	1.6 U	1.1 U
1,1-Dichloroethane		0.81 U	1.2 U	0.81 U
1,1-Dichloroethene		0.79 U	1.2 U	0.79 U
1,2,4-Trichlorobenzene		3.7 U	5.6 U	3.7 U
1,2,4-Trimethylbenzene		0.98 U	18	20
1,2-Dibromoethane		1.5 U	2.3 U	1.5 U
1,2-Dichlorobenzene		1.2 U	1. <b>8</b> U	1.2 U
1,2-Dichloroethane		0.81 U	1.2 U	0.81 U
1,2-Dichloroethene (total)		0.79 U	1.2 U	0.79 U
1,2-Dichloropropane		0.92 U	1.4 U	0.92 U
1,3,5-Trimethylbenzene		0.98 U	4.3	4.2
1,3-Butadiene		1.1 U	1.7 U	1.1 U
1,3-Dichlorobenzene		1.2 U	1. <b>8</b> U	1.2 U
1,4-Dichlorobenzene		1.2 U	1. <b>8</b> U	1.2 U
1,4-Dioxane		18 U	27 U	18 U
2-Butanone (MEK)		2.7	17	7.1
2-Chlorotoluene		1.0 U	1.6 U	1.0 U
2-Hexanone		2.0 U	3.1 U	2.0 U
2-Propanol		12 U	18 U	12 U
3-Chloropropene		1.6 U	2.3 U	1.6 U
4-Ethyltoluene		0.98 U	12	14
4-Methyl-2-pentanone		2.0 U	3.1 U	2.0 U
Acetone		12	93	29
Benzene		0.64 U	28	5.1
Bromodichloromethane		1.3 U	2.0 U	1.3 U
Bromoethene		0.87 U	1.3 U	0.87 U
Bromoform		2.1 U	3.1 U	2.1 U
Bromomethane		0.78 U	1.2 U	0.78 U
Carbon Disulfide		1.6 U	2.5	4.7
Carbon tetrachloride		1.3 U	1.9 U	1.3 U
Chlorobenzene		0.92 U	1.4 U	0.92 U

Table 7. Summary of Volatile Organic Compounds Detected in Soil Vapor Samples, 1800 Southern Boulevard., Bronx, New York

	Sample Designation:	AS-203	SV-201	SV-202
Parameter	Sample Date:	6/12/2008	6/12/2008	6/12/2008
(Concentrations in ug/m <sup>3</sup> )				
Chloroethane		1.3 U	2.0 U	1.3 U
Chloroform		0.98 U	8.8	2.3
Chloromethane		1.1	1.5 U	1.0 U
cis-1,2-Dichloroethene		0.79 U	1.2 U	0.79 U
cis-1,3-Dichloropropene		0.91 U	1.4 U	0.91 U
Cyclohexane		0.76	5.2	4.1
Dibromochloromethane		1.7 U	2.6 U	1.7 U
Dichlorodifluoromethane		2.5 U	3.7 U	2.5 U
Ethylbenzene		0.87 U	6.9	6.9
Freon 113		1.5 U	2.3 U	1.5 U
Freon 114		1.4 U	2.1 U	1.4 U
Heptane		0.82 U	8.2	3.4
Hexachlorobutadiene		2.1 U	3.2 U	2.1 U
Hexane		1. <b>8</b> U	30	6.7
Isooctane		0.93 U	34	4.6
Methylene chloride		1.7 U	2.6 U	1.7 U
MTBE		1.8 U	160	1. <b>8</b> U
Styrene		0.85 U	3.7	3.9
t-Butyl Alcohol		15 U	23 U	15 U
Tetrachloroethene		1.4 U	6.8	10
Tetrahydrofuran		15 U	22 U	15 U
Toluene		4.9	24	26
trans-1,2-Dichloroethene		0.79 U	1.2 U	0.79 U
trans-1,3-Dichloropropene		0.91 U	1.4 U	0.91 U
Trichloroethene		1.1 U	1.6 U	1.1 U
Trichlorofluoromethane		1.7	22	140
Vinyl chloride		0.51 U	0.77 U	0.51 U
Xylenes (Total)		0.87 U	39	43

U - Analyte was not detected at or above the reporting limit

μg/m<sup>3</sup> - micrograms per cubic meter

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater Samples, 1800 Southern Boulevard, Bronx, New York

D	NYSDEC	Sample Designation:	SB-101W	SB-102W	SB-103W	SB-104W	SB-105W	SB-107W
Parameter centrations in μg/L)	AWQSGVs (μg/L)	Sample Date:	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08
centrations in µg/L/	(µg/L)							
1,1,1-Trichloroethane	5		100 U	50 U	5 U	20 U	l U	50 U
1,1,2,2-Tetrachloroethane	5		100 U	<b>50</b> U	<b>5</b> U	<b>20</b> U	1 U	50 U
1,1,2-Trichloroethane	1		100 U	<b>50</b> U	<b>5</b> U	<b>20</b> U	1 U	50 U
1,1-Dichloroethane	5		100 U	<b>50</b> U	<b>5</b> U	<b>20</b> U	1 U	50 U
1,1-Dichloroethene	5		100 U	<b>50</b> U	5 U	<b>20</b> U	1 U	50 U
1,2,3-Trichloropropane	0.04		100 U	50 U	<b>5</b> U	<b>20</b> U	1 U	50 U
1,2,4-Trimethylbenzene	5		130	2300	5 U	<b>20</b> U	1 U	6900
1,2-Dichlorobenzene	3		100 U	50 U	5 U	20 U	1 U	50 U
1,2-Dichloroethane	0.6		50 U	25 U	2.5 U	10 U	0.5 U	25 U
1,2-Dichloropropane	1		100 U	50 U	5 U	20 U	1 U	50 U
1,3,5-Trimethylbenzene	5		100 U	1000	5 U	20 U	1 U	1900
1,3-Dichlorobenzene	3		100 U	50 U	5 U	20 U	1 U	50 U
1,3-Dichloropropane	5		100 U	50 U	5 U	20 U	1 U	50 U
1,4-Dichlorobenzene	3		100 U	50 U	5 U	20 U	1 U	50 U
1,4-Dioxane			25000 U	2500 U	1200 U	1000 U	50 U	12000 L
2-Butanone (MEK)	50		100 U	50 U	5 U	20 U	1 U	50 U
2-Chloroethylvinylether			100 U	50 U	5 U	20 U	1 U	50 U
2-Choroeury viny leader 2-Hexanone	 50		100 U	50 U	5 U	20 U	1 U	50 U
								50 U
4-Isopropyltoluene			100 U	110	5 U	21	1 U	
4-Methyl-2-pentanone			100 U	50 U	5 U	20 U	1 U	50 U
Acetone	50		500 U	250 U	88	100 U	5 U	880
Acrolein	5		500 U	250 U	25 U	100 U	5 U	250 U
Acrylonitrile	5		100 U	50 U	5 U	20 U	1 U	50 U
Benzene	l 		720	66	95	960	1.5	170
Bromodichloromethane	50		100 U	<b>50</b> U	5 U	20 U	1 U	50 U
Bromoform	50		100 U	<b>50</b> U	5 U	<b>20</b> U	1 U	50 U
Bromomethane	5		100 U	50 U	5 U	<b>20</b> U	1 U	50 U
Carbon disulfide			100 U	<b>50</b> U	<b>5</b> U	<b>20</b> U	1 U	50 U
Carbon tetrachloride	5		100 U	50 U	5 U	<b>20</b> U	1 U	50 U
Chlorobenzene	5		100 U	<b>50</b> U	<b>5</b> U	<b>20</b> U	1 U	<b>50</b> U
Chloroethane	5		100 U	<b>50</b> U	<b>5</b> U	<b>20</b> U	1 U	50 U
Chloroform	7		100 U	<b>50</b> U	5 U	<b>20</b> U	1 U	50 U
Chloromethane			100 U	50 U	5 U	<b>20</b> U	1 U	50 U
cis-1,2-Dichloroethene	5		100 U	50 U	5 U	<b>20</b> U	1 U	50 U
cis-1,3-Dichloropropene			100 U	50 U	5 U	20 U	1 U	50 U
Dibromochloromethane	50		100 U	<b>50</b> U	5 U	<b>20</b> U	1 U	50 U
Dichlorodifluoromethane	5		100 U	<b>50</b> U	5 U	20 U	1 U	50 U
Ethylbenzene	5		770	1200	140	1300	1 U	6000
Freon 113			100 U	50 U	5 U	20 U	1 U	50 U
Isopropylbenzene			100 U	280	47	150	1 U	380
m+p-Xylene	5		2400	2200	100	150	2 U	23000
Methylene chloride	5		100 U	50 U	5 U	20 U	1 U	50 U
MTBE	10		7800	50 U	<b>5</b> U	5000	2.9	50 U

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater Samples, 1800 Southern Boulevard, Bronx, New York

	NYSDEC	Sample Designation:	SB-101W	SB-102W	SB-103W	SB-104W	SB-105W	SB-107W
Parameter	AWQSGVs	Sample Date:	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08
ncentrations in μg/L)	(μg/L)				<del>_</del>	<u> </u>		
n-Butylbenzene	5		100 U	<b>50</b> U	5 U	<b>20</b> U	1 U	50 U
n-Propylbenzene	5		180	760	81	270	1 U	1100
o-Xylene	5		540	1100	15	34	1 U	9200
sec-Butylbenzene	5		100 U	100	6.7	<b>20</b> U	1 U	130
Styrene	5		100 U	50 U	5 U	20 U	1 U	<b>50</b> U
t-Butyl Alcohol	***		6100	250 U	210	11000	<b>5</b> U	250 U
t-Butylbenzene	5		100 U	50 U	5 U	<b>20</b> U	1 U	50 U
Tetrachloroethene	5		100 U	50 U	<b>5</b> U	<b>20</b> U	1 U	50 U
Toluene	5		280	50 U	41	180	1 U	2100
trans-1,2-Dichloroethene	5		100 U	<b>50</b> U	5 U	20 U	1 U	<b>50</b> U
trans-1,3-Dichloropropene			100 U	50 U	5 U	20 U	1 U	50 U
Trichloroethene	5		100 U	50 U	5 U	20 U	1 U	50 U
Trichlorofluoromethane	5		100 U	50 U	5 U	<b>20</b> U	1 U	<b>50</b> U
Vinyl chloride	2		100 U	50 U	5 U	<b>20</b> U	1 U	<b>50</b> U
Napthalene	10		-			•	-	
Total BTEX			4710	4566	391	2624	1.5	40470

U - Not Detected

μg/L - Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water Quality Standards and Guidance Values

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater Samples, 1800 Southern Boulevard, Bronx, New York

D	NYSDEC	Sample Designation:	SB-1	SB-2	SB-3	SB-4	SB-5	SB-1
Parameter centrations in µg/L)	AWQSGVs	Sample Date:	02/28/03	02/28/03	02/28/03	02/28/03	02/28/03	07/22/03
semrations in µg/L)	(μg/L)				_			
1,1,1-Trichloroethane	5							
1,1,2,2-Tetrachloroethane	5							
1,1,2-Trichloroethane	1							
1,1-Dichloroethane	5							
1,1-Dichloroethene	5							
1,2,3-Trichloropropane	0.04							
1,2,4-Trimethylbenzene	5		1560	2310	6. 2 J	1.8 J	658	9090
1,2-Dichlorobenzene	3							
,2-Dichloroethane	0.6							
,2-Dichloropropane	1							
1,3,5-Trimethylbenzene	5		465	681	2 J	0.52 J	203	2840
1,3-Dichlorobenzene	3							
1,3-Dichloropropane	5							
1,4-Dichlorobenzene	3							
1,4-Dioxane								
2-Butanone (MEK)	50							
2-Chloroethylvinylether								
2-Hexanone	50							
1-Isopropyltoluene			13.3 J	20.7 J	25 U	1.8 J	5.8 J	91.7 J
4-Methyl-2-pentanone	**				•			
Acetone	50							
Acrolein	5							
Acrylonitrile	5							
Benzene	1		127	111	26.9	0.54 J	115	64.4
Bromodichloromethane	50							
Bromoform	50							
Bromomethane	5							
Carbon disulfide	-							
Carbon tetrachloride	5							
Chlorobenzene	5							
Chloroethane	5							
Chloroform	7							
Chloromethane								
cis-1,2-Dichloroethene	5							
cis-1,3-Dichloropropene								
Dibromochloromethane	50							
Dichlorodifluoromethane	5							
Ethylbenzene	5		943	2160	4.8 J	0.95 J	267	4930
Freon 113			,	2100		0.,,,	-0.	.,,00
Isopropylbenzene	~-		88.6	175	10 U	2 U	41.1	598
m+p-Xylene	5		4540	8260	19.4	4.4	2310	16900
Methylene chloride	5			0200	2217	•••	-010	10,00
MTBE	10		58	69.3	802	10.3	52.1	71.1

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater Samples, 1800 Southern Boulevard, Bronx, New York

	NYSDEC	Sample Designation:	SB-1	SB-2	SB-3	SB-4	SB-5	SB-1
Parameter	AWQSGVs	Sample Date:	02/28/03	02/28/03	02/28/03	02/28/03	02/28/03	07/22/03
icentrations in μg/L)	(μg/L)							
n-Butylbenzene	5		20.9 J	53.1 J	25 U	5 U	7.6 J	201 J
n-Propylbenzene	5		224	445	25 U	5 U	92.1	1710
o-Xylene	5							
sec-Butylbenzene	5		16.5 J	35.2 J	25 U	5 U	5.1 J	141 J
Styrene	5							
-Butyl Alcohol	••							
-Butylbenzene	5		2.8 J	130 U	25 U	5 U	50 U	-
Tetrachloroethene	5							
Toluene	5		663	742	3.5 J	0.97 J	56.7	618
rans-1,2-Dichloroethene	5							
rans-1,3-Dichloropropene								
Trichloroethene	5							
[richlorofluoromethane	5							
Vinyl chloride	2							
Napthalene	10		205	207	11.2 J	2.3 J	74.9	1050
Total BTEX		<del>-</del>	6273	11273	54.6	6.8	2748.7	22512.4

U - Not Detected

μg/L - Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water Quality Standards and Guidance Values

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater Samples, 1800 Southern Boulevard, Bronx, New York

	NYSDEC	Sample Designation:	SB-2	SB-3
Parameter	AWQSGVs	Sample Date:	07/22/03	07/22/03
ncentrations in µg/L)	(μg/L)		<u> </u>	
1,1,1-Trichloroethane	5			
1,1,2,2-Tetrachloroethane	5			
1,1,2-Trichloroethane	1			
1,1-Dichloroethane	5			
1,1-Dichloroethene	5			
1,2,3-Trichloropropane	0.04			
1,2,4-Trimethylbenzene	5		1500	4.5 J
1,2-Dichlorobenzene	3			
1,2-Dichloroethane	0.6			
1,2-Dichloropropane	1			
1,3,5-Trimethylbenzene	5		442	1.7 J
1,3-Dichlorobenzene	3			
1,3-Dichloropropane	5			
1,4-Dichlorobenzene	3			
1,4-Dioxane	~-			
2-Butanone (MEK)	50			
2-Chloroethylvinylether				
2-Hexanone	50			
4-Isopropyltoluene			13.7 J	13 U
4-Methyl-2-pentanone				
Acetone	50			
Acrolein	5			
Acrylonitrile	5			
Benzene	1		2 J	17.2
Bromodichloromethane	50			
Bromoform	50			
Bromomethane	5			
Carbon disulfide				
Carbon tetrachloride	5			
Chlorobenzene	5			
Chloroethane	5			
Chloroform	7			
Chloromethane				
cis-1,2-Dichloroethene	5			
cis-1,3-Dichloropropene				
Dibromochloromethane	50			
Dichlorodifluoromethane	5			
Ethylbenzene	5		482	0.94 J
Freon 113				
Isopropylbenzene			120	5 U
m+p-Xylene	5		1990	2.3 J
Methylene chloride	5			
MTBE	10		26.3	626

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater Samples, 1800 Southern Boulevard, Bronx, New York

	NYSDEC	Sample Designation:	SB-2	SB-3
Parameter	<b>AWQSGVs</b>	Sample Date:	07/22/03	07/22/03
ncentrations in μg/L)	(μg/L)			
n-Butylbenzene	5		25 U	13 U
n-Propylbenzene	5		301	1.2 J
o-Xylene	5			
sec-Butylbenzene	5		23.2 J	13 U
Styrene	5			
t-Butyl Alcohol				
t-Butylbenzene	5		-	-
Tetrachloroethene	5			
Toluene	5		17.8	2.5 U
trans-1,2-Dichloroethene	5			
trans-1,3-Dichloropropene				
Trichloroethene	5			
Trichlorofluoromethane	5			
Vinyl chloride	2			
Napthalene	10	_	98.6	13 U
Total BTEX			2491.8	20.44

U - Not Detected

μg/L - Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water Quality Standards and Guidance Values

Table 9. Summary of Semivolatile Organic Compounds Detected in Groundwater Samples, 1800 Southern Boulevard, Bronx, New York

_	NYSDEC	Sample Designation:	SB-102W	SB-103W	SB-104W	SB-105W	SB-107W
Parameter	AWQSGVs	Sample Date:	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08
(Concentrations in µg/L)	(μg/L)						
1,2,4-Trichlorobenzene	5		20 U	2 U	20 U	2 U	20 U
1,2-Diphenylhydrazine			20 U	2 U	<b>20</b> U	2 U	20 U
2,2-oxybis (1-chloropropane)			20 U	2 U	20 U	2 U	20 U
2,4,5-Trichlorophenol			20 U	2 U	20 U	2 U	20 U
2,4,6-Trichlorophenol			20 U	2 U	20 U	2 U	20 U
2.4-Dichlorophenol	5		20 U	2 U	20 U	2 U	20 U
2,4-Dimethylphenol	50		20 U	2 U	20 U	2 U	20 U
2,4-Dinitrophenol	10		100 U	10 ປ	100 U	10 U	100 U
2,4-Dinitrotoluene	5		20 U	2 U	20 U	2 U	20 U
2,6-Dinitrotoluene	5		20 U	2 U	20 U	2 U	20 U
2-Chloronaphthalene	10		20 U	2 U	20 U	2 U	20 U
2-Chlorophenol			20 U	2 U	20 U	2 U	20 U
2-Methylnaphthalene	~=		490	3.7	320	2 U	260
2-Methylphenol			20 U	2 U	20 U	2 Ü	20 U
2-Nitroaniline	5		20 U	2 U	20 U	2 U	20 U
2-Nitrophenol			20 U	2 U	20 U	2 U	20 U
3,3-Dichlorobenzidine			20 U	2 U	20 U	2 U	20 U
3-Nitroaniline	5		20 U	2 Ü	20 U	2 U	20 U
4,6-Dinitro-2-methylphenol			100 U	10 U	100 U	10 U	100 U
4-Bromophenyl phenyl ether			20 U	2 U	20 U	2 U	20 U
4-Chloro-3-methylphenol			20 U	2 U	20 U	2 U	20 U
4-Chloroaniline	5		20 U	2 U	20 U	2 U	20 U
4-Chlorophenyl phenyl ether	J 		20 U	2 U	20 U	2 U	20 U
4-Methylphenol			20 U	2 U	20 U	2 U	20 U
4-Nitroaniline	5		20 U	2 U	20 U	2 U	20 U
			20 U	2 U	20 U	2 U	20 U
4-Nitrophenol	 20		20 U	2 U	20 U	2 U	20 U
Acenaphthene	20		20 U	2 U	20 U	2 U	20 U
Acenaphthylene					-		
Aniline			20 U	2 U	20 U	2 U	20 U
Anthracene	50		20 U	2 U	20 U	2 U	20 U
Benzidine	5		20 U	2 U	20 U	2 U	20 U
Benzo[a]anthracene	 > 175		20 U	2 U	20 U	2 U	20 U
Benzo[a]pyrene	ND		20 U	2 U	20 U	2 U	20 U
Benzo[b]fluoranthene			20 U	2 U	20 U	2 U	20 U
Benzo[k]fluoranthene			20 U	2 U	20 U	2 U	20 U
Benzo[g,h,i]perylene			20 U	2 U	20 U	2 U	20 U
Benzoic acid	 -		100 U	2.1	100 U	4.3	100 U
Bis(2-chloroethoxy)methane	5		20 U	2 U	20 U	2 U	20 U
Bis(2-chloroethyl)ether	1		20 U	2 U	20 U	2 U	20 U
Bis(2-ethylhexyl)phthalate	5		20 U	2 U	20 U	2 U	20 U
Butylbenzyl phthalate			<b>20</b> U	2 U	20 U	2 U	20 U
Carbazole			20 U	2 U	20 U	2 U	20 U
Chrysene	0.002		20 U	2 U	<b>20</b> U	2 U	20 U
Dibenzo[a,h]anthracene			20 U	2 U	20 U	<b>2</b> U	20 U
Dibenzofuran			20 U	2 U	20 U	2 U	20 U

Table 9. Summary of Semivolatile Organic Compounds Detected in Groundwater Samples, 1800 Southern Boulevard, Bronx, New York

	NYSDEC	Sample Designation:	SB-102W	SB-103W	SB-104W	SB-105W	SB-107W
Parameter	AWQSGVs	Sample Date:	06/12/08	06/12/08	06/12/08	06/12/08	06/12/08
(Concentrations in µg/L)	(μg/L)						
Diethyl phthalate	50		20 U	2 U	20 U	2 U	
Dimethyl phthalate	50		20 U	2 U	<b>20</b> U	2 U	<b>20</b> U
Di-n-butyl phthalate	50		<b>20</b> U	2 U	<b>20</b> U	2 U	<b>20</b> U
Di-n-octyl phthalate			<b>20</b> U	2 U	20 U	2 U	20 U
Fluoranthene	50		20 U	2 U	20 U	2 U	20 U
Fluorene	50		20 U	2 U	20 U	2 U	<b>20</b> U
Hexachlorobenzene	0.04		20 U	2 U	20 U	2 U	20 U
Hexachlorobutadiene	0.5		20 U	2 U	20 U	2 U	<b>20</b> U
Hexachlorocyclopentadiene	5		100 U	10 U	100 U	10 U	100 U
Hexachloroethane	5		20 U	2 U	20 U	2 U	20 U
Indeno(1,2,3-cd)pyrene			20 U	2 U	20 U	2 U	<b>20</b> U
Isophorone	50		20 U	2 U	20 U	2 U	<b>20</b> U
Naphthalene	10		400	15	330	2 U	650
Nitrobenzene	0.4		20 U	2 U	20 U	2 U	20 U
n-Nitrosodimethylamine			20 U	2 U	20 U	2 U	<b>20</b> U
n-Nitroso-di-n-propylamine			20 U	2 U	20 U	2 U	20 U
n-Nitrosodiphenylamine	50		20 U	2 U	20 U	2 U	<b>20</b> U
Pentachlorophenol	1		100 U	10 U	100 U	10 U	100 U
Phenanthrene	50		20 U	2 U	<b>20</b> U	2 U	20 U
Phenol	1		<b>20</b> U	2 U	<b>20</b> U	2 U	20 U
Pyrene	50		<b>20</b> U	2 U	<b>20</b> U	2 U	20 U

U - Not Detected

μg/L - Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water Quality Standards and Guidance Values

Table 10. Summary of Metals Detected in Groundwater Samples, 1800 Southern Boulevard, Bronx, New York

	NYSDEC	Sample Designation:	SB-102W	SB-103W	SB-104W	SB-105W
Parameter	<b>AWQSGVs</b>	Sample Date:	06/12/08	06/12/08	06/12/08	06/12/08
(Concentrations in µg/L)	(µg/L)					
Aluminum			9100	50000	90000	5600
Antimony	3		12 U	12 U	12 U	12 U
Arsenic	25		8.5	17	45	10
Barium	1000		210	580	670	230
Beryllium	3		4 U	4 U	6	4 U
Cadmium	5		3.5 U	3.5 U	3.5 U	3.5 U
Calcium			160000	180000	110000	120000
Chromium	50		50 U	140	350	50 U
Cobalt			<b>20</b> U	50	76	<b>20</b> U
Copper	200		63	240	360	<b>50</b> U
Iron			33000	100000	130000	8700
Lead	25		56	340	200	37
Magnesium			32000	42000	49000	20000
Manganese	300		8700	2900	5900	500
Mercury	0.7		0.7 U	<b>0.7</b> U	0.7 U	<b>0.7</b> U
Nickel	100		50 U	160	310	<b>50</b> U
Potassium			8800	24000	15000	13000
Selenium	10		40 U	<b>40</b> U	<b>40</b> U	<b>40</b> U
Silver	50		<b>20</b> U	<b>20</b> U	<b>20</b> U	<b>20</b> U
Sodium	20000		89000	55000	110000	240000
Thallium	0.5		10 U	10 U	10 U	10 U
Vanadium			<b>50</b> U	180	310	50 U
Zinc	2000		68	270	320	<b>50</b> U

U - Not Detected

μg/L - Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation AWQSGVs - Ambient Water Quality Standards and Guidance Values

Table 11. Summary of Polychlorinated Biphenyl Compounds Detected in Groundwater Samples, 1800 Southern Boulevard, Bronx, New York

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	Sample Designation: Sample Date:	SB-102W 06/12/08	SB-103W 06/12/08	SB-104W 06/12/08	SB-105W 06/12/08
Aroclor-1016			0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221			0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1232			0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242			0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248			0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254			0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1260			0.5 U	0.5 U	0.5 U	<b>0.5</b> U
Aroclor-1262			0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1268			0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	0.09		0	0	0	0

NYSDEC AWQSGV for Total PCBs (sum of the Aroclors) is 0.09 µg/L

U - Not Detected

μg/L - Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water Quality Standards and Guidance Values

Table 12. Summary of Pesticides Detected in Groundwater Samples, 1800 Southern Boulevard, Bronx, New York

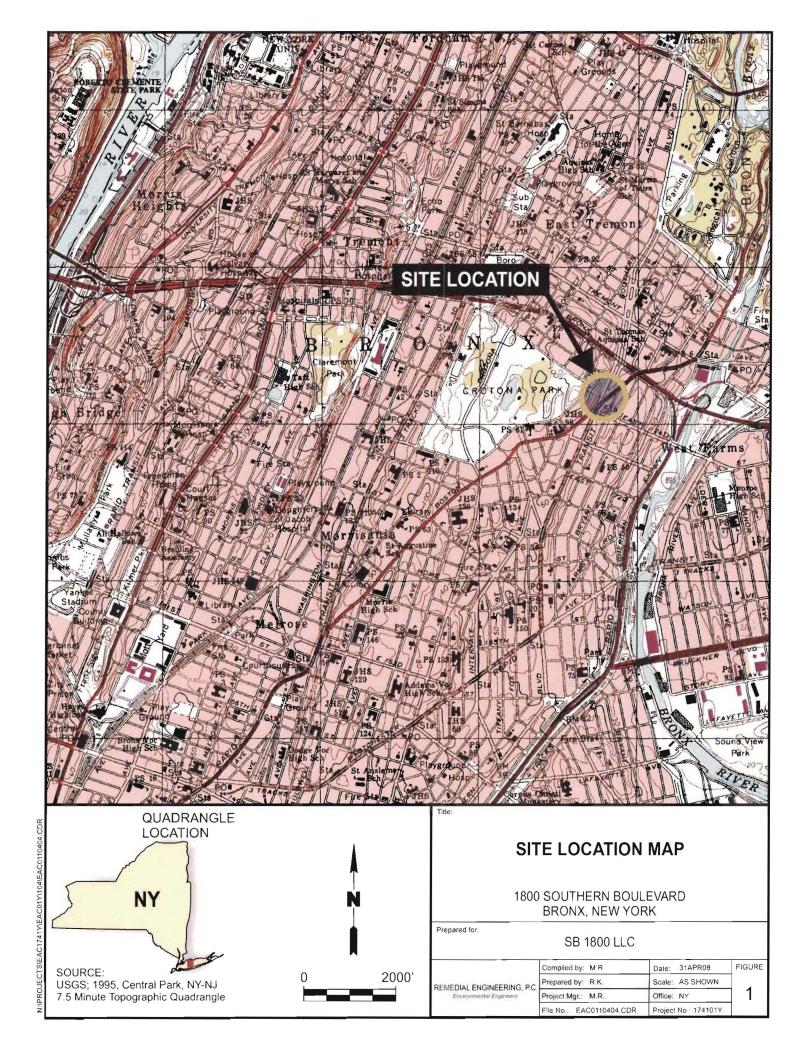
	NYSDEC	Sample Designation:	SB-102W	SB-103W	SB-104W	SB-105W
Parameter	AWQSGVs	Sample Date:	06/12/08	06/12/08	06/12/08	06/12/08
(Concentrations in μg/L)	(μg/L)					
4,4'-DDD	0.3		0.02 U	0.02 U	0.02 U	0.02 U
4,4'-DDE	0.2		<b>0.02</b> U	0.02 U	0.02 U	0.02 U
4,4'-DDT	0.2		0.02 U	0.02 U	0.02 U	0.02 U
Aldrin	0		0.02 U	0.02 U	0.02 U	0.02 U
alpha-BHC			0.02 U	0.02 U	0.02 U	0.02 U
beta-BHC			0.02 U	0.02 U	0.02 U	0.02 U
Chlordane			<b>0.2</b> U	0.2 U	0.2 U	0.2 U
delta-BHC			<b>0.02</b> U	0.02 U	0.02 U	0.02 U
Dieldrin	0.004		0.02 U	0.02 U	0.02 U	0.02 U
Endosulfan I			0.02 U	0.02 U	0.02 U	0.02 U
Endosulfan II			0.02 U	0.02 U	0.02 U	0.02 U
Endosulfan sulfate			0.02 U	0.02 U	0.02 U	0.02 U
Endrin aldehyde	5		0.02 U	0.02 U	0.02 U	0.02 U
Endrin ketone			0.02 U	0.02 U	0.02 U	0.02 U
Endrin	0		0.02 U	0.02 U	0.02 U	0.02 U
gamma-BHC (Lindane)			0.02 U	0.02 U	0.02 U	0.02 U
Heptachlor epoxide	0.03		0.02 U	0.02 U	0.02 U	0.02 U
Heptachlor	0.04		0.02 U	0.02 U	0.02 U	0.02 U
Methoxychlor	35		0.02 U	0.02 U	0.02 U	0.02 U
Toxaphene	0.06		0.5 U	0.5 U	0.5 U	0.5 U

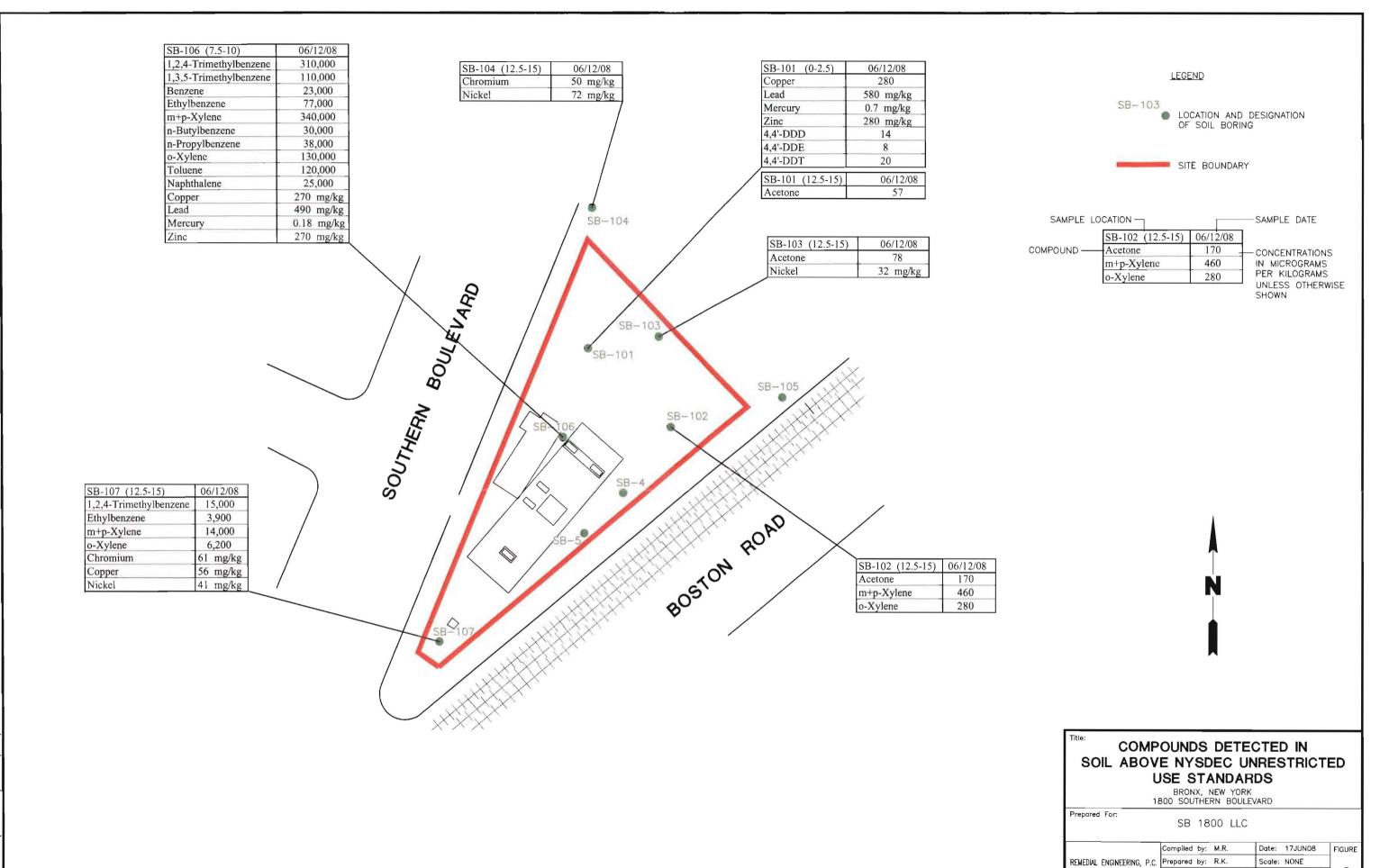
U - Not Detected

μg/L - Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water Quality Standards and Guidance Values





ENVIRONMENTAL ENGINEERS

Project Mgr: M.R.

File No: EAC0110405

Office: NY

Project: 174101Y

ROJECTS\EAC1741Y\EAC01Y\104\EAC0110405.DV

Scale: 1"=35"

Project: 174101Y

Office: NY

4

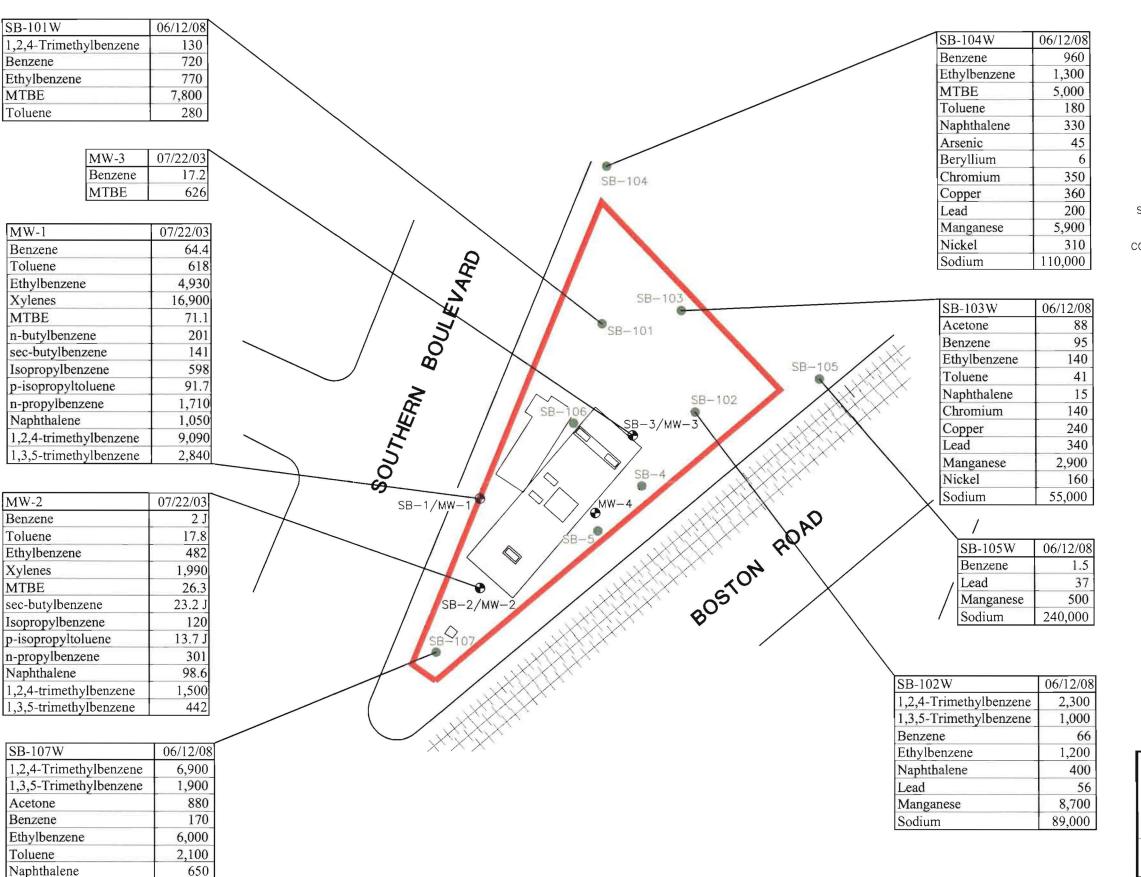
REMEDIAL ENGINEERING, P.C.

ENVIRONMENTAL ENGINEERS

Prepared by: R.K.

Project Mgr: M.E.

File No: EAC0110402



LEGEND

SB-103

LOCATION AND DESIGNATION
OF SOIL BORING

MW-4
LOCATION AND DESIGNATION
OF MONITORING WELL
INSTALLED BY DELTA

SITE BOUNDARY

SAMPLE LOCATION SAMPLE DATE

SB-105W 06/12/08

COMPOUND Benzene 1.5

Lead 37

Manganese 500

Sodium 240,000



# COMPOUNDS DETECTED IN GROUNDWATER ABOVE NYSDEC AWQSGVs

BRONX, NEW YORK 1800 SOUTHERN BOULEVARD

Prepared For:

SB 1800 LLC

	Compiled by: M.R.	Date: 17JUN08	FIGURE
REMEDIAL ENGINEERING, P.C.	Prepared by: R.K.	Scale: NONE	1
ENVIRONMENTAL ENGINEERS	Project Mgr: M.R.	Office: NY	5
	File No: EAC0110403	Project: 174101Y	1

# APPENDIX A

Soil Boring Logs



WELL NO.

209 Shafter Street Islandia, New York 11749 Telephone: (631) 232-2600 Fax: (631) 232-9898

Page 1 of **1** 

NORTHING EASTING Not Measured **Not Measured** SB-101 LOCATION 1776 Southern Boulevard PROJECT NO./NAME

1741.0001Y000 / Southern Boulevard LOGGED BY APPROVED BY Bronx, New York GEOGRAPHIC AREA M. Preissler

DRILLING CONTRACTOR/DRILLER

ADT / Jamey Myers
DRILL BIT DIAMETER/TYPE West side of Vacant Lot DRILLING EQUIPMENT/METHOD BOREHOLE DIAMETER SAMPLING METHOD START-FINISH DATE 6610DT / Geoprobe 2" Macro-Core 6/12/08-6/12/08

**SOIL BORING LOG** 

2-in. / Drive Sampler
LAND SURFACE ELEVATION 4-inches DEPTH TO WATER BACKFILL Not Measured Not Measured Soil Cuttings

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS	
	0.0.0 0.0.0	Dark Grey, Fine SAND, little silt, trace gravel, trace brick, trace ash; moist		1301		
	4.4.4	Outshed Deals			Sample SB-101/0-2.5 for VOC, SVOC, Metals, PCB	•••
		Crushed Rock Dark Brown and Black, Fine SAND, little silt, trace gravel; moist			and Pesticides	• • •
	<u> </u>	Crushed Concrete  Dark Brown and Black, Fine SAND, some Silt, trace gravel; wet		251		• • •
5				0.0		
		Dark Grey, CLAY; wet				***
				11.3		•••
		Dark Grey and Orange, CLAY, trace F sand; wet				
10				1.8		_1
				1.6		
		Orangey Brown, Fine to Medium SAND, little silt, trace gravel; moist				
	• • • • • • • • • • • • • • • • • • • •	Black, Fine SAND, trace gravel; wet		243	Black Staining; HC Odor	
	77777	Dark Grey, CLAY, trace gravel; wet			Sample SB-101/12.5-15 for VOC, SVOC, Metals, PCB	
15					and Pesticides	1.



209 Shafter Street Islandia, New York 11749 Telephone: (631) 232-2600 Fax: (631) 232-9898

rage i or i				
WELL NO.	NORTHING	EASTING		
SB-102	Not Measured	Not Measured		
PROJECT NO./NAME	<del></del>	LOCATION		
1741.0001Y000 / Southe	em Boulevard	1776 Southern Boulevard		
APPROVED BY	LOGGED BY			
	M. Preissler	Bronx, New York		
DRILLING CONTRACTOR/DRII	LER	GEOGRAPHIC AREA		
ADT / Jamey Myers		East side of Vacant Lot		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	4-inches	6610DT / Geoprobe	2" Macro-Core	6/12/08-6/12/08
LAND SURFACE ELEVATION	DEPTH TO WATER	BACKFILL	-	
Not Measured	Not Measured	Soil Cuttings		

feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS	
	444	Brown, Fine SAND, little silt, trace gravel, trace brick; moist		0.0		
	000					
	0.0.0					
		Brown, SILT and CLAY, trace fine sand, trace gravel, moist		0.0		
5				8.3		_5
<b></b>						
	77777	Crushed Brick Grey, CLAY, trace fine sand, trace silt; moist		45.7		
10		Brown to Grey, CLAY, little fine to medium sand, little silt, trace gravel; wet		1846		10
				le		
		Black, Fine to Coarse SAND; moist			Black Staining; HC Odor	
		Brown, Fine SAND, some Silt, trace gravel; wet			Black Staining; HC Odor Sample SB-102/12.5-15 for	
15					VOC, SVOC, Metals, PCB and Pesticides	



209 Shafter Street Islandia, New York 11749 Telephone: (631) 232-2600 Fax: (631) 232-9898

Page 1 of 1 SOIL BORING LOG

rage i or i				
WELL NO.	NORTHING	EASTING		
SB-103	Not Measured	Not Measured		
PROJECT NO /NAME		LOCATION	<u> </u>	
1741.0001Y000 / Southe	ern Boulevard	1776 Southern Boulevard		
APPROVED BY	LOGGED BY			
	M. Preissler	Bronx, New York		
DRILLING CONTRACTOR/DRIL	LER	GEOGRAPHIC AREA		<del></del>
ADT / Jamey Myers		North side of Vacant Lot		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	4-inches	6610DT / Geoprobe	2" Macro-Core	6/12/08-6/12/08
LAND SURFACE ELEVATION	DEPTH TO WATER	BACKFILL		
Not Measured	Not Measured	Soil Cuttings		

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Value: (ppm)	s REMARKS	
	00000	Concrete		8.1		
	0.0.0.0.	Dark Brown, Fine to Medium SAND, little silt, trace gravel; moist	$\dashv$			
	000					
	4.4.4	Brown, Fine to Medium SAND, little silt, little gravel; moist		2.0		
	0 0 0 0 0 0					
5	000					5
<del></del>	2 2 2			5.3		
	<i>Milli</i>	Grey, CLAY; moist				
		Dark Grey and Orange, CLAY, little fine sand; moist	- ]	0.0		
10						10
	7///4	Brown to Grey, Fine to Coarse SAND, little gravel, trace cobble; mosit	_	249		
		Brown, Fine to Medium SAND, trace gravel; wet	_	4050	Blad: Bisis - 100 Odes	
		DIOWIT, FINE TO INECTION SAME, LACE GRAVE, WEL		1656	Black Staining; HC Odor	
					Sample SB-103/12.5-15 for VOC, SVOC, Metals, PCB	
15		Light Brown, Fine to Coarse SAND, trace gravel; wet	<b>⊣</b>		and Pesticides	15

BORING/FEET 1741.0001Y000.GPJ ROUX,GDT 7/23/08



209 Shafter Street Islandia, New York 11749 Telephone: (631) 232-2600 Fax: (631) 232-9898

WELL NO.	NORTHING	EASTING		
SB-104	Not Measured	Not Measured		
PROJECT NO./NAME		LOCATION		
1741.0001Y000 / Southern Boulevard		1776 Southern Boulevard		
APPROVED BY	LOGGED BY			
	M. Preissler	Bronx, New York		
DRILLING CONTRACTOR/DRIL	LER	GEOGRAPHIC AREA		
ADT / Jamey Myers		Southern Blvd. north of Site	•	
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	4-inches	6610DT / Geoprobe_	2" Macro-Core	6/12/08-6/12/08
LAND SURFACE ELEVATION	DEPTH TO WATER	BACKFILL		
Not Measured	Not Measured	Soil Cuttings		

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS	
<del></del>	0.000	Concrete  Dark Brown, Fine to Medium SAND, little silt, trace gravel; moist		0.0		
	0.0.0	San Som, The temperature and the san grants, make				
	0.00					
		Brown, SILT, little fine to medium sand, trace gravel; moist		0.0		••••
5		Crushed Brick Brown, SILT and CLAY, trace fine to medium sand; moist		0.0		_5
	77777	Crushed Brick Grey and Brown, CLAY, trace gravel; moist				
				67.1		
				07.1		
		Brown, Fine to Medium SAND, trace gravel; wet			Black Staining; HC Odor	
10	•••••	Black, Fine SAND; wet		748	Black Staining; HC Odor	_10
		Brown, SILT, little clay, trace fine sand; wet				
		Black, Fine to Medium SAND, little gravel; wet			Black Staining; HC Odor	
				1401		
				l	Sample SB-104/12.5-15 for VOC, SVOC, Metals, PCB and Pesticides	
<u>15</u>	<u>la dia dia l</u>				<u> </u>	15



209 Shafter Street Islandia, New York 11749 Telephone: (631) 232-2600 Fax: (631) 232-9898

-5				
WELL NO.	NORTHING	EASTING		
SB-105	Not Measured	Not Measured		
PROJECT NO./NAME		LOCATION		
1741.0001Y000 / Southe	m Boulevard	1776 Southern Boulevard		
APPROVED BY	LOGGED BY			
	M. Preissler	Bronx, New York		
DRILLING CONTRACTOR/DRIL	LER	GEOGRAPHIC AREA		
ADT / Jamey Myers		Boston Rd. east of Site		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	4-inches	6610DT / Geoprobe	2" Macro-Core	6/12/08-6/12/08
LAND SURFACE ELEVATION	DEPTH TO WATER	BACKFILL		
Not Measured	Not Measured	Soil Cuttings		

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS	
	0000	Concrete		8.8		
	0.0.0.0	Brown, Fine SAND and SILT, little gravel; moist				
	. \(\Delta\). \(\Delta\).	<b>3</b> ,				
	444	Brown, Fine SAND, little silt, trace gravel; moist		4 -		
	000	blown, Fine SAND, little silt, trace graver, moist		1.7		.,
		Brown, SILT, little clay; moist				
_						_
				0.0		_5
		Desire to Orac OLAM areas Cill trans areas benefit				
		Brown to Grey, CLAY, some Silt, trace gravel; moist				
	71/1/1/1/	Brown, Fine to Medium SAND; moist				
		Brown, Fine SAND, little silt; moist		0.0		
10		Dark Grey, Fine to Medium SAND, some Silt, trace gravel; wet Brown, Fine SAND, little silt; moist		8.1		10
		Stown, I the Grand, made one, made		0.1		
		Brown to Grey, Fine to Coarse SAND, little gravel, little silt; moist	_			••••
				206		
	• • • • • • •	Grey, Fine SAND, trace gravel; wet			Slight HC Odor.	
		orey, I are craine, nace groves, wer			Sample SB-105/12.5-15 for	
15					VOC, SVOC, Metals, PCB and Pesticides	15



209 Shafter Street Islandia, New York 11749 Telephone: (631) 232-2600 Fax: (631) 232-9898

ugo . o				
WELL NO.	NORTHING	EASTING		
SB-106	Not Measured	Not Measured		
PROJECT NO./NAME		LOCATION		
1741.0001Y000 / Southe	rn Boulevard	1776 Southern Boulevard		
APPROVED BY	LOGGED BY			
	M. Preissler	Bronx, New York		
DRILLING CONTRACTOR/DRIL	LER	GEOGRAPHIC AREA		
ADT / Jamey Myers		Northwest side of Former G	Sas Station	
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	4-inches	6610DT / Geoprobe	2" Macro-Core	6/12/08-6/12/08
LAND SURFACE ELEVATION	DEPTH TO WATER	BACKFILL		<u> </u>
Not Measured	Not Measured	Soil Cuttings		

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS	
	444	Grey, Fine to Coarse SAND and GRAVEL; moist	_	78.8		
	0.0.0					
	0.00					
		Light Brown, Fine to Medium SAND; moist		1336		
		Greyish Brown, CLAY, little fine to medium sand; wet			Slight HC Odor	
5_						_5
				1536		
						••••
		Grey, CLAY, little gravel; wet			Sheen; HC Odor	
				1711		
					Sample SB-106/7.5-10 for VOC, SVOC, Metals, PCB	
10					and Pesticides	10



209 Shafter Street Islandia, New York 11749 Telephone: (631) 232-2600 Fax: (631) 232-9898

**SOIL BORING LOG** Page 1 of 1

•						
WELL NO.	NORTHING	EASTING				
SB-107	Not Measured	Not Measured				
PROJECT NO./NAME		LOCATION				
1741.0001Y000 / Southern Boulevard		1776 Southern Boulevard				
APPROVED BY	LOGGED BY					
	M. Preissler	Bronx, New York				
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA				
ADT / Jamey Myers		Southwest side of Former Gas Station				
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE		
2-in. / Drive Sampler	4-inches	6610DT / Geoprobe	2" Macro-Core	6/12/08-6/12/08		
LAND SURFACE ELEVATION	DEPTH TO WATER	BACKFILL				
Not Measured	Not Measured	Soil Cuttings				

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS	
	0.0.0.0.	Concrete		38.8		
	0 0 0 0 0 0	Dark Brown, Fine SAND and SILT, trace gravel; moist				
	4.4.4					
	.0:0°.0:0	Crushed Concrete  Dark Brown, CLAY, trace fine sand, trace gravel; moist		52.4		
		Sair Brown, 55 tr, size into care, race grave, most				
5_	/////	Dark Grey, SILT, trace fine sand; moist		2447	Slight HC Odor	_5
		Dark Brown, SILT, little fine sand, moist		1749		
10		Dark Brown, CLAY and SILT, trace fine sand; moist		1681	Black Staining; HC Odor	10
		Crushed rock  Dark Brown, Fine to Coarse SAND, little gravel; moist		3370		
••••		Crushed rock			Sample SB-107/12.5-15 for VOC, SVOC, Metals, PCB	
15					and Pesticides	15

# APPENDIX B

Analytical Data