

July 9, 2015

**INTERIM REMEDIAL MEASURE
(IRM) WORK PLAN**

**Former CJ's Service Center Property
Site No. C243041
5801 Amboy Road
Staten Island, New York**

Prepared for

**SHORE TO SHORE FOSTER LLC
15 Page Avenue
Staten Island, New York 10309**

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Environmental Consulting & Management



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- A. 2004 Liquid Blockage Test Report with Sketch of Existing USTs

CERTIFICATION

I, Noelle M. Clarke, certify that I am currently a NYS registered professional engineer and that this Interim Remedial Measure (IRM) Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and the BCP Agreement for the Site.

Noelle M. Clarke, P.E.
NYS Professional Engineer #072491

July 9, 2015
Date



1.0 INTRODUCTION

Roux Associates, Inc. (Roux Associates) and Remedial Engineering, P.C. (Remedial Engineering) have prepared this Interim Remedial Measure (IRM) Work Plan on behalf of the Shore to Shore Foster LLC (Volunteer) to detail the scope of work for the removal of existing underground storage tanks (USTs), product piping and a pump island with two dispensers at the Former CJ's Service Center Property (Site), located at 5801 Amboy Road, Staten Island, New York (Figure 1). The IRM will be the first phase of the overall remediation and redevelopment of the Site.

The Volunteer entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) in April 2015, to investigate and remediate a 0.38-acre property. Shore to Shore Foster LLC is a Volunteer in the Brownfield Cleanup Program (BCA Index No C243041; BCP Site No. C243041). The Site will be remediated to Commercial use or higher soil cleanup objectives (SCOs). When completed, the Site will likely include a single one-story commercial building with paved parking areas and limited landscaping. Refer to the Brownfield Cleanup Program (BCP) application for additional details.

This IRM Work Plan has been prepared in accordance with NYSDEC procedures set forth in the document titled DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and complies with all applicable Federal, State and local laws, regulations and requirements.

1.1 Objectives and Scope of the IRM Work Plan

The proposed IRM will remove the following structures and piping that were associated with the former CJ's Service Station that operated at the Site until it was purchased by the Volunteer in 2014:

- The former service station pump island with two dispensers;
- Three 2000-gallon gasoline USTs;
- One 4000-gallon gasoline UST;
- Three suspected historical 550-gallon (estimated) former gasoline USTs that may be located beneath the pump island based upon Sanborn maps of the Site; and
- Associated product piping between the former tank field and the pump island.

If grossly contaminated soil is encountered during the IRM activities, excavation will continue to remove the grossly contaminated soil where it is technically and practically feasible. If further soil removal is determined to be infeasible (i.e., sidewall instability; excavation anticipated in vadose zone extends to water table and dewatering is not available; etc.), excavation efforts will be concluded and conditions remaining following completion of the IRM will be documented in the Construction Completion Report (CCR). Residual contamination will be addressed as part of the Remedial Investigation (RI) and the Remedial Action Work Plan (RAWP), which will describe the overall remedy for the Site.

A site plan depicting the proposed IRM scope of work is presented as Figure 2. The IRM is a component of the overall remedy for the Site. It will identify and remove potential ongoing sources of petroleum contamination. This will advance the BCP goals, but will not complete the investigation or remediation of the Site.

The remainder of this IRM Work Plan is organized as follows:

Section 2: Site Background

Section 3: Scope of Work

Section 4: Soils/Materials Management Plan

Section 5: Reporting

Section 6: IRM Work Plan Implementation Schedule

2.0 SITE BACKGROUND

Relevant Site background information is presented in this section.

2.1 Site Description and Setting

| Property Location | |
|----------------------------------|--|
| Property Name: | Former CJ's Service Center |
| Property Address: | 5801 Amboy Road |
| Property Town, County, State: | Neighborhood of Prince's Bay, Staten Island, Richmond County, New York 10309 |
| Property Tax Identification: | Section 28, Block 6896, Lots 52 & 53 |
| Property Topographic Quadrangle: | Arthur Kill, New York – New Jersey |
| Nearest Intersection: | Amboy Road and Foster Road |
| Area Description: | Retail, and Commercial, with Residential to the north, south, east and west |

A Site location map is included as Figure 1.

| Property Information | |
|-----------------------------|--|
| Property Acreage: | 0.3756 acres (total) |
| Property Shape: | Trapezoidal |
| Property Use: | Vacant former retail gasoline and service station |
| Number of Buildings: | One |
| Number of Stories: | One |
| Date of Construction: | c. 1928 |
| Building Square Footage: | Approximately 3,100 square feet |
| Basement/ Slab-on-Grade: | Slab-on-grade |
| Number of Units: | One |
| Ceiling Finishes: | Acoustic ceiling tiles and exposed structural elements |

| Property Information | |
|-----------------------------|---|
| Floor Finishes: | Carpet and bare concrete |
| Wall Finishes: | Painted drywall and exposed structural elements |
| HVAC: | Natural Gas |
| Renovation Date: | Unknown |
| Renovation Description: | An extension was added to the northern side of the building, bringing it to present day configuration |
| Vehicular Access: | Via Amboy Road or Foster Road |
| Other Improvements: | Paved Parking Areas |
| Property Coverage: | Footprint of the subject building, associated parking areas |

2.1.1 Property Operations

The Site is currently vacant and has been since August of 2014, when the property was purchased by the Volunteer. The Site formerly operated as a retail gasoline and service station for approximately 86 years (c. 1928). As described in the Remedial Investigation Work Plan (RIWP) dated May 21, 2015, the exact date of the construction of the gasoline station is unknown. The Site was unimproved on a 1924 aerial photograph. However, as described in Section 2.2.1 of the RIWP, the 1928 city directory lists the Site as being occupied by the “Mora Jos M Service Station” and the Site is shown to be improved with a gasoline station on a 1937 Sanborn fire insurance map (Section 2.2.3 of the RIWP). For the purpose of this IRM Work Plan it will be assumed that the Site was developed and used as a gasoline station since 1928.

2.1.2 Topography/Hydrogeology

Review of the USGS 7.5-minute series topographic quadrangle map of Arthur Kill, New York-New Jersey reveals that the elevation of the Site is approximately 50 feet above mean sea level. The topography of the Site is essentially flat with only a slight grade toward the southwest. According to water level data for Staten Island (USGS 1989), the water table at the Site is in the Upper Glacial aquifer and the regional depth to groundwater has ranged from approximately 4.5 to 10.3 feet below land surface (ft bls) at the Site, based upon gauging data generated by others. The regional groundwater flow direction is south-southeast. Local groundwater is

expected to mirror local topography and migrate to the south-southeast toward Prince's Bay and Raritan Bay.

2.1.3 Underground Storage Tanks

It is assumed that USTs were in use at the Site from at least 1928 (as listed in the City Directory) until mid-2014, when the Site was vacated. The Sanborn fire insurance maps dating back to 1937 (there are no fire insurance maps for the years 1928 through 1936) indicate three gasoline USTs to the south of the building, along Amboy Road, in the approximate location of the existing pump island. The status of these historical tanks is unknown.

As indicated in the NYSDEC PBS Database, the existing USTs at the Site (PBS Site No. 2-082902) are three plain steel 2,000 gallon gasoline tanks (listed as in-service) and one 4,000-gallon plain steel gasoline tank (listed as temporarily out of service). As shown on a 2004 Liquid Blockage Test report included in Appendix A (also included within Appendix G of the BCP Application) the USTs are located beneath a concrete tank pad east of the building along Foster Road. Roux Associates observed this tank pad during a December 18, 2014 Site walk. According to the NYSDEC PBS Database, these tanks were installed in 1971. According to NYC Department of Buildings (NYCDOB) records cited in Section 2.2.4 of the RIWP, these tanks were upgraded sometime in 1998 (discussed further below). In summary, based on the available information, there may be historical USTs present beneath the existing pump island located along Amboy Road, in addition to the current USTs located in the tank field along Foster Road. As described below, a geophysical survey will be completed as part of the IRM in an attempt to confirm the location of USTs on-Site.

2.1.4 Underground Storage Tank Upgrade

According to the current NYSDEC PBS Database listing, the existing USTs at the Site were installed in 1971. Based on the operating history of the Site, and the Sanborn fire insurance maps, USTs were present at the Site since at least 1928. No available records definitively discuss previous UST replacements or upgrades between 1928 and 1971; however, it is likely that USTs were upgraded, replaced, or additional USTs added sometime between initial installation c. 1928 and the 1971 installation date listed on the PBS documentation. As described above, the DOB records indicate that four USTs were replaced or upgraded in the late 1990's. The location of the

current UST field is shown on Figure 2. The potential location of the former 550 gallon USTs along Amboy Road in the approximate location of the current pump island is shown on the Sanborn fire insurance maps included in Appendix C of the RIWP.

2.2 Summary of Environmental Conditions

The following is a summary of environmental conditions at the Site.

2.2.1 NYSDEC Spills and Stipulation Agreement

There is an open Spill Number (01-04572), two administratively closed Spill Numbers (02-10034 and 03-06111) and a Stipulation Agreement relative to the Site. Information regarding these items is provided below.

- Spill Number 01-04572 was called into the NYSDEC Spill Incident Hotline on July 30, 2001 in response to discovery of impacted soil during intrusive work at the Site. A search of the NYSDEC Spill Incidents Database identified two other Spill Numbers: 02-10034 (closed) and 03-06111(closed). All three Spills were reported to be gasoline. The NYSDEC database listings are included in Appendix E of the BCP Application.
- Available Site documentation includes a Stipulation Agreement relative to Spill Number 01-04572. The Stipulation Agreement included a Corrective Action Plan that required monitoring and recovery of any liquid phase hydrocarbons; additional delineation, if necessary, including offsite; production of an Investigation Summary Report; and production and performance of a Remedial Action Plan. A copy of the Stipulation Agreement is included in Appendix E of the BCP Application.

2.2.2 Previous Environmental Sampling

The following is a brief summary of environmental sampling conducted at the Site. A complete description of previous environmental sampling conducted at the Site is included in the RIWP and will not be repeated herein.

As documented in several reports, soil, and groundwater sampling has been carried out several times at the Site between approximately 2006 and the present. Data collected during previous investigations are presented on the following tables:

- Table 1 – Summary of Volatile Organic Compounds in Soil Samples
- Table 2 – Summary of Semivolatile Organic Compounds in Soil Samples
- Table 3 – Summary of Volatile Organic Compounds in Groundwater Samples

In general, the historical data indicates that soil and groundwater on portions of Lot 53 have been impacted by previous Site operations as a service station. Soil and/or groundwater sampling has not been conducted on Lot 52 to date. No soil vapor sampling has been conducted on the Site to date.

Petroleum-related volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) have been identified in soil and groundwater samples collected from Lot 53. However, as described in the RIWP, further delineation is needed to fully characterize the nature and extent of soil, groundwater, and soil vapor contamination at the Site. Furthermore, previous investigations have been primarily limited to Spills Technology and Remediation Series (STARS) list VOCs and SVOCs, and methyl tert butyl ether (MTBE), at limited horizons beneath the Site, and have not evaluated the potential for the presence of other VOCs and SVOCs not on the STARS list, polychlorinated biphenyls (PCBs), pesticides, herbicides, and metals, including lead which is typically found in historical gasoline spills. Proposed additional investigation activities are described in the RIWP.

3.0 SCOPE OF WORK

The scope of work for the IRM consists of the following tasks:

- Completion of a geophysical survey;
- Site mobilization and Site preparation;
- Tank removal (including extraction of any fluids currently in the USTs, rendering the interior of the USTs inert by degassing; and excavating, removing, cleaning and cutting the USTs into pieces for offsite transportation as scrap metal) and removal of grossly contaminated soil to the extent technically practical and feasible;
- Remedial Performance Evaluation (Post Excavation End-Point Sampling)
- Waste disposal; and
- Documentation.

Implementation of the IRM will be in accordance with the Soils/Materials Management Plan (SoMP) included in Section 4 of this IRM Work Plan.

3.1 Geophysical Survey

A geophysical survey will be performed as part of the IRM in an effort to confirm the location of current tanks and piping and identify any previously undocumented USTs, piping or pump islands. It is apparent from previous investigation reports, that there is a utility corridor both above and below-grade on the southern side of the Site along Amboy Road that has inhibited drilling in this area. The geophysical survey will confirm the location of utilities that may complicate removal of the USTs, piping or pump island.

3.2 Mobilization and Site Preparation

A project kick-off meeting will be conducted with NYSDEC, the Volunteer, Roux Associates/Remedial Engineering and the selected Contractor prior to the commencement of any intrusive activities, if requested by NYSDEC. The Contractor will supply any labor (HAZWOPER Certified in accordance with OSHA 1910.120) and materials required for the implementation of the IRM scope of work. In addition, necessary permits, insurance, bonds, and licenses required to complete the work will be obtained and fees necessary to obtain these permits will be paid. Mobilization and Site preparation activities include:

1. Mobilization of equipment to the work area.

2. Installation of construction fencing and traffic barricades to delineate the work zone, act as a work Site security measure, and mark the truck loading and decontamination areas.
3. Implementation of erosion and sediment control measures in accordance with the New York Guidelines for Urban Erosion and Sediment Control. Hay bales will be placed at locations upgradient of excavation areas to control stormwater runoff and surface water from entering or exiting the excavation. Catch basin inlets will be protected to prevent disturbed soil from entering.
4. Set-up of staging areas for the excavation area.
5. Set-up of temporary facilities and decontamination facilities including decontamination pad in order to decontaminate trucks and other vehicles/equipment.
6. Removal of pavement and concrete to access the tanks and piping to be removed.

3.3 Tank Removal

A tank removal contractor licensed by New York City Fire Department (FDNY) will mobilize the necessary labor and equipment to remove the USTs. Removal of the USTs will be completed in general accordance with NYSDEC's Technical Guidance for Site Investigation and Remediation (DER-10) Section 5.5. The scope of work will include:

- Extraction of any fluids currently in the USTs;
- Rendering the interior of the USTs inert by degassing;
- Endpoint soil sampling (described in Section 3.4); and
- Excavating, removing, cleaning and cutting the USTs into pieces for offsite transportation as scrap metal.
- If grossly contaminated soil is encountered during the IRM activities, excavation will continue to remove the grossly contaminated soil where it is technically and practically feasible. If further soil removal is determined to be infeasible (i.e., sidewall instability; excavation anticipated in vadose zone extends to water table and dewatering is not available; etc.), excavation efforts will be concluded and conditions remaining following completion of the IRM will be documented in the CCR. Residual contamination will be addressed as part of the RI and the RAWP.

Roux Associates/Remedial Engineering will provide oversight of the UST removal. Upon their removal, Roux Associates/Remedial Engineering will inspect each of the USTs for damage, corrosion, pitting, holes or other signs of a release. Notes of the inspection will be recorded in a

field notebook and photographs of the USTs will be taken. Post excavation samples will be completed in general accordance with DER-10.

Excavated soil will be segregated (unsaturated versus saturated) and stockpiled on and covered with polyethylene sheeting until the excavation is completed. It has been assumed that impacted soil will be largely contained in the smear zone and will be segregated along with the saturated soils. The UST excavation sidewalls will be lined with polyethylene sheeting so as to not create a preferential pathway for LNAPL and will be backfilled with recycled concrete aggregate (RCA) obtained from a NYSDEC registered construction and demolition debris processing facility to one foot above the water table. The remainder of the tank grave(s) will be backfilled with the unsaturated soil removed during the UST excavation, as appropriate (refer to Section 4.7 for additional details regarding reuse of soil). RCA will be used to finish the excavation to within 2 inches of final grade, as necessary. Two inches of asphalt will be installed over areas disturbed during the IRM.

3.4 Remedial Performance Evaluation (Post Excavation End-Point Sampling)

End-point sampling and reporting will be conducted in accordance with DER-10 and the QAPP (included as Appendix E of the RIWP) and is discussed in the sections below.

3.4.1 End-Point Sampling Frequency

The frequency of endpoint sampling for the UST removal IRM will be in accordance with DER-10, Section 5.5.

3.4.2 Methodology

Each sample will be inspected for visual evidence of contamination (i.e., staining, presence of petroleum or odors) and field screened for VOCs using a PID. Soil samples to be submitted for analysis will be placed in a laboratory sample jar, and transported to the laboratory in an iced container.

3.4.3 Reporting of Results

The laboratory will report analytical results for end point samples in ASP Category B deliverable packages. An EDD in the required NYSDEC format will also be provided by the laboratory.

All end point sample data generated for the IRM will be logged in a database and organized to facilitate data review and evaluation. The electronic dataset will include the data flags provided in accordance with USEPA Laboratory Data Validation Functional Guidelines for Evaluating Organic Analysis and Inorganic Analyses, as well as additional comments of the data review for ASP/CLP analyses. The data flags include such items as: 1) concentration below required detection limit, 2) estimated concentration due to poor recovery below required detection limit, 3) estimated concentration due to poor spike recovery, and 4) concentration of chemical also found in laboratory blank.

3.4.4 QA/QC

Quality control (QC) samples serve as checks on both the sampling and measurements systems and assist in determining the overall data quality with regard to representation, accuracy, and precision. The QAPP, included as Appendix E to the RIWP, describes QA/QC procedures and sampling for the project.

3.4.5 DUSR

A DUSR will be prepared to evaluate the end-point samples by a party independent from the laboratory performing the analysis in accordance with Appendix 2B of DER-10. The QAPP, included as Appendix E to the RIWP, describes the DUSR to be prepared for the project.

3.4.6 Reporting of End-Point Data

Chemical labs used for all end-point sample results and contingency sampling will be New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified.

The CCR will provide a tabular and map summary of all end-point sample results and exceedances of SCOs.

3.5 Waste Disposal

All wastes generated during the UST removal including gasoline removed from the tanks and any LNAPL impacted soil from the smear zone will be handled, transported and disposed of in a manner consistent with federal, state and local laws and regulations.

3.6 Documentation

Following removal of the USTs, a Petroleum Bulk Storage (PBS) Application for closure of the tanks, associated documentation and payment will be filed with the NYSDEC PBS Unit. If historic USTs are found to be present in the vicinity of the pump island, a PBS application for both registration and closure of the previously unregistered tanks will be filed. Also, an FDNY Affidavit will be filed by the FDNY licensed tank removal contractor for removal of the USTs.

Detailed information regarding the IRM (e.g., waste disposal documentation, backfill documentation, photos, etc.) will be included in the CCR described in Section 5.

4.0 SOIL/MATERIALS MANAGEMENT PLAN

The following sections provide the SoMP to be implemented during the IRM.

4.1 Soil Screening Methods

Visual, olfactory and photoionization detector (PID) soil screening and assessment will be performed during UST removal activities under the supervision of Roux Associates/Remedial Engineering personnel.

4.2 Stockpile Methods

Soil excavated in order to remove the USTs will be segregated (unsaturated versus saturated) and stockpiled on and covered with polyethylene sheeting or placed in rolloff containers until the excavation is completed. It has been assumed that impacted soil will be largely contained in the smear zone and will be segregated along with the saturated soils; however, unsaturated soils will also be screened with a PID and segregated appropriately. Stockpiles will be used only when necessary, and will be removed as soon as practicable. While stockpiles are in place, they will be inspected at a minimum each week, and before and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. Excavated soils will be stockpiled on, at minimum, double layers of 6-mil minimum poly-sheeting, will be kept covered at all times (except when material is being added or removed) with appropriately anchored polyethylene sheeting, and will be routinely inspected. Broken or ripped sheeting will be promptly replaced. If used, rolloff containers for saturated materials will be lined.

Stockpile activities will be compliant with applicable laws and regulations. Stockpiles of excavated soils and other materials will be located a minimum of 20 feet from the property boundaries, where possible. Hay bales or equivalent will surround soil stockpiles as needed, except for areas where access by equipment is required. Silt fencing and hay bales will be used as needed near catch basins, surface waters and other discharge points.

4.3 Characterization of Excavated Materials

Soil/fill or other excavated media that will be transported off-Site for disposal will be sampled in a manner required by the receiving facility, and in compliance with applicable laws and regulations. Soils proposed for reuse on-Site will be managed as defined in this plan.

4.4 Materials Excavation and Load Out

Roux Associates/Remedial Engineering will oversee all invasive work and the excavation and load-out of all excavated material.

The Volunteer and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan. Support of excavation will be provided, if necessary, based upon Site conditions and local regulations.

The presence of easements on the Site has been investigated. It has been determined that no risk or impediment to the planned work under this IRM Work Plan is posed by easements on the Site. The presence of utilities within/adjacent to the proposed work area will be investigated prior to the work in order to determine if there are any impediments to the proposed scope of work. NYSDEC will be notified of any changes required to the scope of work based on the geophysical survey.

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

Loaded outbound trucks will be inspected by Roux Associates/Remedial Engineering and cleaned if necessary before leaving the Site.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-Site sediment tracking. All egress points for truck and equipment transport from the Site will be clean of dirt and other materials derived from the Site during the implementation of the IRM. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

USTs, associated piping, and the pump island will be removed and end-point remedial performance sampling completed, as described in Section 3.4, before excavations related to Site development commence proximal to these structures.

Mechanical processing of historical fill and contaminated soil on-Site is prohibited.

4.5 Materials Transport Off-Site

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

The proposed inbound truck route to the Site is:

- Take NJ-440 S, NY-440 N and Korean War Veterans Pkwy to Drumgoole Road east in Staten Island, New York. Take the exit toward Maguire Avenue/Foster Road/Huguenot Avenue from Drumgoole Road W/Korean War Veterans Pkwy. Follow Drumgoole Road east and make a right turn on Foster Road. Entrance to the Site will be on the right.

The proposed outbound truck route from the Site is:

- Take Foster Road to Drumgoole Road and make a left turn. Follow Drumgoole Road/Korean War Veterans Parkway to NJ-440 S or NY-440 N.

These are the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-Site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport. To the extent possible, trucks loaded with Site materials will travel to/from the Site using these approved truck routes.

Trucks will avoid stopping and idling in the neighborhood outside the project Site, to the extent practicable. Queuing of trucks will be performed on-Site, when possible, in order to minimize off Site disturbance. Off-Site queuing will be minimized.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during the IRM implementation.

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

4.6 Materials Disposal Off-Site

All soil/fill/solid waste excavated and removed from the site will be disposed of in accordance with regulatory requirements based on the levels of contamination found to be present in waste characterization samples collected.

The following documentation will be obtained and reported for each disposal location used in this project to demonstrate and document that the disposal of material derived from the Site conforms with all applicable laws: (1) a letter or facility-specific waste profile/application from Roux Associates/Remedial Engineering or the Volunteer to the receiving facility describing the material to be disposed and requesting formal written acceptance of the material. This letter/profile/application will state that material to be disposed is contaminated material generated at an environmental remediation Site in New York State. The letter will provide the project identity and the name and phone number of the Roux Associates/Remedial Engineering or the Volunteer. The letter will include as an attachment a summary of all chemical data for the material being transported (including Site Characterization data); and (2) a letter from all receiving facilities stating it is in receipt of the correspondence (above) and is approved to accept the material. These documents will be included in the CCR.

The CCR will include an accounting of the destination of all material removed from the Site during this IRM. This information will also be presented in a tabular form in the CCR.

A Bill of Lading system or equivalent will be used for off-Site movement of non-hazardous wastes and contaminated soils. This information will be reported in the CCR.

Hazardous wastes derived from on-Site will be stored, transported, and disposed of in compliance with applicable local, State, and Federal regulations.

Appropriately licensed haulers will be used for material removed from this Site and will be in compliance with all applicable local, State and Federal regulations.

Waste characterization will be performed for off-Site disposal in a manner suitable to the receiving facility and in conformance with applicable permits. All data available for soil/material to be

disposed at a given facility must be submitted to the disposal facility with suitable explanation prior to shipment and receipt.

4.7 Materials Reuse On-Site

It has been assumed that impacted soil will be largely contained in the smear zone and will be segregated along with the saturated soils and potentially reused as backfill in the tank excavation. Unsaturated soil excavated during the UST removal will be reused on-Site, as appropriate, provided no petroleum impacts are observed (staining, odors, PID response). The quality of the unsaturated soil will be confirmed through sampling of the excavated material proposed for reuse before backfilling. “Reuse on-Site” means material that is excavated during the UST removal does not leave the property, and is put back in the excavation from which it came at a level at least one foot above the water table. Roux Associates/Remedial Engineering will confirm that materials proposed for reuse are segregated from other materials to be exported from the Site and that procedures defined for material reuse in this SoMP are followed. In order to confirm that the soil can be reused, sampling of the excavated material will be conducted (on a quick turnaround) for a full suite of parameters (Target Compound List [TCL] VOCs, TCL SVOCs, Target Analyte List [TAL] metals, TCL PCBs, pesticides and herbicides) during the IRM. If concentrations of the soil proposed for reuse exceed the appropriate SCOs, the soil will be disposed of offsite and offsite backfill will be used (Section 4.9).

Soil or fill excavated from the Site during the IRM will not be reused within a final cover soil layer or within landscaping berms.

Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site is prohibited for reuse on-Site.

4.8 Fluids Management

All liquids to be removed from the Site will be handled, transported and disposed in accordance with applicable laws and regulations. Any and all liquids observed in the USTs will be removed prior to removal of the USTs. All liquids removed from the USTs will be sampled in a manner required by the receiving facility, and in compliance with applicable laws and regulations. Liquid waste manifests will be reported to NYSDEC in the CCR.

Although dewatering is not expected to be necessary, in the event that dewatering is needed, dewatering fluids will be discharged into the NYC sewer system or transported and disposed off-Site. Discharges into the NYC sewer system will receive prior approval by the NYC Department of Environmental Protection (NYCDEP). The NYCDEP regulates discharges to the New York City sewers under Title 15, Rules of the City of New York Chapter 19. Discharge to the NYC sewer system will require an authorization and sampling data demonstrating that the groundwater meets the City's discharge criteria. The dewatering liquid will be pretreated as necessary to meet the NYCDEP discharge criteria. If discharge to the City sewer system is not appropriate or desired, the dewatering liquid will be managed by transportation and disposal at an off-Site treatment facility. Characterization of fluids for offsite disposal will be performed in a manner suitable to the receiving facility and in conformance with applicable permits.

4.9 Backfill from Off-Site Sources

All materials proposed for import onto the Site will be approved by Roux Associates/Remedial Engineering and will be in compliance with provisions in this IRM prior to receipt at the Site.

Material from industrial sites, spill sites, other environmental remediation sites or other potentially contaminated sites will not be imported to the Site. Solid waste will not be imported onto the Site.

All imported soils will meet NYSDEC approved backfill or cover soil quality objectives for this Site. These NYSDEC approved backfill or cover soil quality objectives are the lower of the protection of groundwater or the protection of public health soil cleanup objectives for Commercial or higher use as set forth in Table 375-6.8(b) of 6 NYCRR Part 375. Non-compliant soils will not be imported onto the Site without prior approval by NYSDEC. Nothing in the approved IRM or its approval by NYSDEC should be construed as an approval for this purpose.

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Nothing in this IRM should be construed as an approval for this purpose.

In accordance with DER-10, the following material may be imported, without chemical testing, to be used as backfill beneath pavement, buildings or as part of the final site cover, provided that

it contains less than 10% by weight material which would pass through a size 80 sieve and consists of:

- gravel, rock or stone, consisting of virgin material from a NYSDEC permitted mine or quarry; or
- recycled concrete or brick from a NYSDEC registered construction and demolition debris processing facility if the material conforms to the requirements of Section 304 of the New York State Department of Transportation *Standard Specifications Construction and Materials Volume 1* (2002).

Trucks entering the Site with imported soils will be securely covered with tight fitting covers.

4.10 Stormwater Pollution Prevention

Applicable laws and regulations pertaining to stormwater pollution prevention will be addressed during the UST removal. Erosion and sediment control measures (silt fences and/or barriers, and/or hay bale checks) will be installed, as appropriate, around the entire perimeter of the remedial construction area and inspected once a week and after every storm event to ensure that they are operating appropriately. Discharge locations will be inspected to determine whether erosion control measures are effective in preventing significant impacts to receptors. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs to erosion and sediment controls shall be made immediately. Accumulated sediments will be removed as required to keep the barrier and hay bale check functional. Undercutting or erosion of the silt fence anchor will be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

4.11 Contingency Plan

This contingency plan is developed for the remedial construction to address the discovery of unknown structures or contaminated media during implementation of the IRM.

If underground tanks or other previously unidentified contaminant sources are found during on-Site remedial excavation, sampling will be performed on potentially contaminated source material and surrounding soils and reported to NYSDEC. Chemical analytical work will be for full suite of parameters (TCL VOCs, TCL SVOCs, TAL metals, TCL PCBs, pesticides and

herbicides). These analyses will not be limited to STARS parameters where tanks are identified without prior approval by NYSDEC. Analyses will not be otherwise limited without NYSDEC approval.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to NYSDEC's Project Manager. These findings will be also included in daily and periodic electronic media reports.

4.12 Community Air Monitoring Plan

In accordance with the Site Health and Safety Plan (HASP), included as Appendix F to the RIWP, CAMP will be implemented during all ground intrusive activities which includes UST removal. The CAMP will be performed in accordance with Appendix F of the HASP and will include the real-time monitoring of volatile organic compounds (VOCs) and particulates at the upwind and downwind perimeter of the designated work area. Should monitoring results exceed action levels as noted in the CAMP, work will immediately be stopped and efforts will be made to mitigate/eliminate the exceedance.

4.13 Odor, Dust and Nuisance Control Plan

4.13.1 Odor Control Plan

In addition to the CAMP monitoring, Roux Associates/Remedial Engineering will closely monitor the presence of odors emanating from either the excavation or the stockpile. The UST removal will be conducted in a controlled fashion with one UST removed at a time.

Odor controls will be employed to prevent on- and off-Site odor nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) use of odor suppressants to cover exposed odorous soils. If nuisance odors develop and cannot otherwise be controlled, additional means to eliminate them will include: (d) direct load-out of soils to trucks for off-Site disposal; and (e) use of chemical odorants in spray or misting systems.

This odor control plan is capable of controlling emissions of nuisance odors. If nuisance odors are identified, the source of odors will be identified and corrected. If necessary, to identify or correct

a nuisance odor source, work will be temporarily halted and will not resume until such nuisance odors have been identified and abated. NYSDEC will be notified of all odor complaint events.

4.13.2 Dust Control Plan

Dust management during invasive on-Site work will include, at a minimum:

- Use of properly anchored tarps to cover stockpiles.
- Exercising extra care during dry and high-wind periods.
- Dust suppression will be achieved through the use of water for wetting excavation areas. Water will be available on-Site at suitable supply and pressure for use in dust control.

This dust control plan is capable of controlling emissions of dust. If nuisance dust emissions are identified, work will be halted and the source of dusts will be identified and corrected. Work will not resume until all nuisance dust emissions have been abated. NYSDEC will be notified of all dust complaint events.

4.13.3 Other Nuisances

Noise control will be exercised during the remedial program. All remedial work will conform, at a minimum, to NYC noise control standards.

5.0 REPORTING

5.1 Weekly Reporting during Site Activities

Weekly reports to NYSDEC and NYSDOH will be submitted during the weeks when IRM activities take place. Weekly reports will include an update of progress made during the reporting period; locations of work and quantities of material imported and exported from the Site; a summary of any and all complaints with relevant details (names, phone numbers); a summary of CAMP readings and an explanation of notable Site conditions etc. If any issues arise (i.e., issues with the CAMP) then daily notification will be provided to NYSDOH and NYSDEC.

5.2 Construction Completion Report (CCR)

Detailed information regarding the IRM (e.g., general description of the construction activities, waste disposal documentation, backfill documentation, photos, etc.) will be included in the CCR to be prepared following receipt of all data, the DUSR and all final disposal documentation. The CCR will provide a tabular and map summary of all end-point sample results and exceedances of SCOs. The CCR will be submitted within 60 days after the DUSR is complete.

6.0 IRM IMPLEMENTATION SCHEDULE

This IRM Work Plan is anticipated to begin in Summer 2015 and will require approximately four to six weeks to complete. It is anticipated that the actual onsite duration of major remedial construction tasks will be completed as follows (timeframes are not necessarily consecutive):

- Geophysical Survey one day
- Site Mobilization and Preparation three days
- UST Removal (depending on number of tanks found) five to eight days
- Transportation and Offsite Disposal three days
- Backfill Placement and Compaction three days
- Site Restoration and Demobilization one day
- Submittal of CCR 60 days after DUSR

Interim Remedial Measure Work Plan
5801 Amboy Road, Staten Island, New York

TABLES

- 1. Summary of Volatile Organic Compounds in Soil Samples**
- 2. Summary of Semivolatile Organic Compounds in Soil Samples**
- 3. Summary of Volatile Organic Compounds in Groundwater Samples**

**Table 1. Summary of Volatile Organic Compounds in Soil Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC Part 375 Unrestricted Use | NYSDEC Part 375 Protection of Groundwater | NYSDEC Part 375 Restricted Commercial | Sample Designation: Sample Date: Sample Depth (ft bls): | SB-1 11/16/2006 5-10 | SB-2 11/17/2006 5-10 | SB-3 11/16/2006 5-10 | SB-4 11/16/2006 5-10 | SB-5 11/17/2006 5-10 |
|--|---|--|--|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | Benzene | 60 | 60 | 44000 | | 1330 | <MDL | <MDL | <MDL |
| Toluene | 700 | 700 | 500000 | | 6370 | <MDL | <MDL | <MDL | <MDL |
| Ethylbenzene | 1000 | 1000 | 390000 | | 16700 | <MDL | <MDL | 1150 | <MDL |
| m&p-Xylenes | * | * | * | | 16200 | 1.56 J | <MDL | 4580 | <MDL |
| o-Xylene | * | * | * | | 6830 | <MDL | <MDL | 1600 | <MDL |
| Xylenes (total) | 260 | 1600 | 500000 | | 23030 | 1.56 J | <MDL | 6180 | <MDL |
| Total BTEX | | | | | 44770 | 1.56 | -- | 7330 | -- |
| Isopropylbenzene | * | * | * | | 2460 | 1.72 | <MDL | 325 | <MDL |
| n-Propylbenzene | 3900 | 3900 | 500000 | | 7880 | 6.2 | <MDL | 1050 | <MDL |
| 1,3,5-Trimethylbenzene | 8400 | 8400 | 190000 | | 16800 | 1.42 J | <MDL | 2030 | <MDL |
| 1,2,4-Trimethylbenzene | 3600 | 3600 | 190000 | | 13800 | 9.28 | <MDL | 6260 | <MDL |
| sec-Butylbenzene | 11000 | 11000 | 500000 | | 967 | 2.42 | <MDL | 208 | <MDL |
| p-Isopropyltoluene | * | * | * | | 1990 | <MDL | <MDL | 329 | <MDL |
| n-Butylbenzene | 12000 | 12000 | 500000 | | 3960 | 5.48 | <MDL | 707 | <MDL |
| Naphthalene | 12000 | 12000 | 500000 | | 8230 | 5.13 | <MDL | 711 | <MDL |
| tert-Butylbenzene | 5900 | 5900 | 500000 | | <MDL | <MDL | <MDL | <MDL | <MDL |
| MTBE | 930 | 930 | 500000 | | 12500 | 3.55 | <MDL | <MDL | <MDL |
| Total VOCs | | | | | 113357 | 36.76 | -- | 18243 | -- |

J - Estimated value

E - Indicates the concentration of the analyte exceeded the calibration range of the instrument

Y - Indicates the concentration reported was detected below the lowest calibration standard concentration

B - The analyte was found in an associated blank as well as in the sample

MDL - Not detected above Method Detection Limits

µg/kg - Micrograms per kilogram

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

* No Standards available

-- Not applicable

Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use Standards

Blue Shaded data indicates parameter was detected above NYSDEC Part 375 Protection of Groundwater Standards

Boxed data indicates parameter was detected above NYSDEC Part 375 Restricted Commercial Standards

**Table 1. Summary of Volatile Organic Compounds in Soil Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC | NYSDEC | NYSDEC | Sample Designation: | BP-6/MW-6 | BP-6MW-6 | BP-7/MW-7 | BP-8/MW-8 |
|--|---------------------------------|--|--------------------------------------|------------------------|--------------|----------------|-----------------|-----------|
| | Part 375 Unrestricted Use | Part 375 Protection of Groundwater | Part 375 Restricted Commercial | | | | | |
| | | | | Sample Depth (ft bls): | 5-7 | 10-12 | 10-12 | 5-7 |
| Benzene | 60 | 60 | 44000 | | 13.3 | 125 | 11500 | 52.4 |
| Toluene | 700 | 700 | 500000 | | 667 Y | 2350 | 151000 | 11.7 |
| Ethylbenzene | 1000 | 1000 | 390000 | | 2120 | 5620 | 139000 | 41.4 |
| m&p-Xylenes | * | * | * | | 10400 | 23100 | 488000 E | 69.9 |
| o-Xylene | * | * | * | | 4660 | 9940 | 213000 E | 24.1 |
| Xylenes (total) | 260 | 1600 | 500000 | | 15100 | 33100 | 701000 | 94.1 |
| Total BTEX | | | | | 17900.3 | 41195 | 1002500 | 199.6 |
| Isopropylbenzene | * | * | * | | 137 | 1250 | 19500 | 4.97 Y |
| n-Propylbenzene | 3900 | 3900 | 500000 | | 2070 | 4220 | 62600 | 13.7 |
| 1,3,5-Trimethylbenzene | 8400 | 8400 | 190000 | | 4680 | 8600 | 113000 | 24.8 |
| 1,2,4-Trimethylbenzene | 3600 | 3600 | 190000 | | 15700 | 28500 E | 372000 E | 109 |
| sec-Butylbenzene | 11000 | 11000 | 500000 | | 31.8 | 97.7 | 6770 Y | 2.01 Y |
| p-Isopropyltoluene | * | * | * | | 22.4 | 1280 | 14000 | 2.13 Y |
| n-Butylbenzene | 12000 | 12000 | 500000 | | 97.3 | 2720 | 28000 | 6.64 |
| Naphthalene | 12000 | 12000 | 500000 | | 137 | 5030 | 51800 | 51.3 |
| tert-Butylbenzene | 5900 | 5900 | 500000 | | <MDL | <:MDL | <MDL | <MDL |
| MTBE | 930 | 930 | 500000 | | 1.69 Y | <MDL | <MDL | 707 |
| Total VOCs | | | | | 40777.49 | 91612.7 | 1670170 | 1414.75 |

J - Estimated value

E - Indicates the concentration of the analyte exceeded the calibration range of the instrument

Y - Indicates the concentration reported was detected below the lowest calibration standard concentration

B - The analyte was found in an associated blank as well as in the sample

MDL - Not detected above Method Detection Limits

µg/kg - Micrograms per kilogram

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

* No Standards available

-- Not applicable

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Boxed data indicates parameter was detected above NYSDEC Part 375 Restricted Commercial Standards

**Table 1. Summary of Volatile Organic Compounds in Soil Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC Part 375 Unrestricted Use | NYSDEC Part 375 Protection of Groundwater | NYSDEC Part 375 Restricted Commercial | Sample Designation: | BP-9/MW-9 | BP-10/MW-10 | BP-11/MW-11 | BP-11/MW-11 |
|--|---|--|--|------------------------|--------------|-------------|--------------|-----------------|
| | | | | Sample Date: | 2/21/2007 | 2/21/2007 | 2/22/2007 | 2/22/2007 |
| | | | | Sample Depth (ft bls): | 5-7 | 10-12 | 5-7 | 10-12 |
| Benzene | 60 | 60 | 44000 | | 230 Y | 1.75 Y | 5.4 Y | 730 Y |
| Toluene | 700 | 700 | 500000 | | 24.3 | 36.5 | 59.3 | 6200 |
| Ethylbenzene | 1000 | 1000 | 390000 | | 611 Y | 9.47 Y | 2210 | 35000 |
| m&p-Xylenes | * | * | * | | 163 | 32.9 | 7100 | 134000 |
| o-Xylene | * | * | * | | 16 | 13.1 | 2350 | 54300 |
| Xylenes (total) | 260 | 1600 | 500000 | | 179 | 46 | 9450 | 189000 |
| Total BTEX | | | | | 1044.3 | 93.72 | 11724.7 | 230930 |
| Isopropylbenzene | * | * | * | | 66.8 | 3.55 Y | 943 | 6290 |
| n-Propylbenzene | 3900 | 3900 | 500000 | | 125 | 10.3 Y | 3830 | 21300 |
| 1,3,5-Trimethylbenzene | 8400 | 8400 | 190000 | | 33.6 | 4.81 Y | 3900 | 40700 |
| 1,2,4-Trimethylbenzene | 3600 | 3600 | 190000 | | 1780 | 15.2 | 17700 | 138000 E |
| sec-Butylbenzene | 11000 | 11000 | 500000 | | 12.2 | <MDL | 147 | 2580 Y |
| p-Isopropyltoluene | * | * | * | | 17.2 | <MDL | 78.4 | 5380 |
| n-Butylbenzene | 12000 | 12000 | 500000 | | 21.3 | 1.35 J | 2680 | 11100 |
| Naphthalene | 12000 | 12000 | 500000 | | 95.3 | 1.43 J | 5450 | 22400 |
| tert-Butylbenzene | 5900 | 5900 | 500000 | | <MDL | <MDL | <MDL | <:MDL |
| MTBE | 930 | 930 | 500000 | | 7460 | <MDL | 29.7 | 348 J |
| Total VOCs | | | | | 10634.4 | 130.36 | 46482.8 | 479028 |

J - Estimated value

E - Indicates the concentration of the analyte exceeded the calibration range of the instrument

Y - Indicates the concentration reported was detected below the lowest calibration standard concentration

B - The analyte was found in an associated blank as well as in the sample

MDL - Not detected above Method Detection Limits

µg/kg - Micrograms per kilogram

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

* No Standards available

-- Not applicable

Bold data indicates that parameter was detected above the NYSDEC Part 375 Unrestricted Use Standards

Blue Shaded data indicates parameter was detected above NYSDEC Part 375 Protection of Groundwater Standards

Boxed data indicates parameter was detected above NYSDEC Part 375 Restricted Commercial Standards

**Table 2. Summary of Semivolatile Organic Compounds in Soil Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC Part 375 Unrestricted Use | NYSDEC Part 375 Protection of Groundwater | NYSDEC Part 375 Restricted Commercial | Sample Designation: Sample Date: Sample Depth (ft bls): | SB-1 11/16/2006 5-10 | SB-2 11/17/2006 5-10 | SB-3 11/16/2006 5-10 | SB-4 11/16/2006 5-10 | SB-5 11/17/2006 5-10 |
|--|---|--|--|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | Acenaphthene | 20000 | 98000 | 500000 | | <MDL | 77.3 | <MDL | <MDL |
| Anthracene | 100000 | 1000000 | 500000 | | <MDL | 146 | <MDL | <MDL | <MDL |
| Benzo[a]anthracene | 1000 | 1000 | 5600 | | 35 | 782 | <MDL | <MDL | 74.3 |
| Benzo[a]pyrene | 1000 | 22000 | 1000 | | 37 | 945 | <MDL | <MDL | 80.2 |
| Benzo[b]fluoranthene | 1000 | 1700 | 5600 | | 32 | 777 | <MDL | <MDL | 85.4 |
| Benzo[g,h,i]perylene | 100000 | 1000000 | 500000 | | 26 | 641 | <MDL | <MDL | 51.6 |
| Benzo[k]fluoranthene | 800 | 1700 | 56000 | | 31 | 725 | <MDL | <MDL | 72.8 |
| Chrysene | 1000 | 1000 | 56000 | | 39 | 785 | <MDL | <MDL | 88.2 |
| Dibenzo[a,h]anthracene | 330 | 1000000 | 560 | | <MDL | 187 | <MDL | <MDL | <MDL |
| Fluoranthene | 100000 | 1000000 | 500000 | | 65.5 | 1120 | <MDL | <MDL | 115 |
| Fluorene | 30000 | 386000 | 500000 | | 34.8 | 42.6 | <MDL | <MDL | <MDL |
| Indeno[1,2,3-cd]pyrene | 500 | 8200 | 5600 | | 24 | 573 | <MDL | <MDL | 49.7 |
| Naphthalene | 12000 | 12000 | 500000 | | 1320 | 60.5 | <MDL | 481 | <MDL |
| Phenanthrene | 100000 | 1000000 | 500000 | | 54.8 | 292 | <MDL | <MDL | 45.9 |
| Pyrene | 100000 | 1000000 | 500000 | | 57.9 | 1182 | <MDL | <MDL | 104 |
| TOTAL PAHs | | | | | 1756.3 | 8335 | -- | 481 | 767 |

J - Estimated value

U - Indicates that the compound was analyzed for but not detected

MDL - Not detected above Method Detection Limits

B - The analyte was found in an associated blank as well as in the sample

µg/kg - Micrograms per kilogram

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

NJDEP - New Jersey Department of Environmental Protection

-- Not applicable

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Boxed data indicates parameter was detected above NYSDEC Part 375 Restricted Commercial Standards

**Table 2. Summary of Semivolatile Organic Compounds in Soil Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC Part 375 Unrestricted Use | NYSDEC Part 375 Protection of Groundwater | NYSDEC Part 375 Restricted Commercial | Sample Designation: | BP-6/MW-6 | BP-6MW-6 | BP-7/MW-7 | BP-8/MW-8 |
|--|---|--|--|-------------------------------|-----------|-----------|--------------|-----------|
| | | | | Sample Date: | 2/20/2007 | 2/20/2007 | 2/20/2007 | 2/21/2007 |
| | | | | Sample Depth (ft bls): | 5-7 | 10-12 | 10-12 | 5-7 |
| Acenaphthene | 20000 | 98000 | 500000 | | <MDL | <MDL | 36 | <MDL |
| Anthracene | 100000 | 1000000 | 500000 | | 58.4 | <MDL | 28.6 | <MDL |
| Benzo[a]anthracene | 1000 | 1000 | 5600 | | 82 | <MDL | 34.4 | <MDL |
| Benzo[a]pyrene | 1000 | 22000 | 1000 | | 47 | <MDL | 24.7 | <MDL |
| Benzo[b]fluoranthene | 1000 | 1700 | 5600 | | 23 | <MDL | 24.1 | <MDL |
| Benzo[g,h,i]perylene | 100000 | 1000000 | 500000 | | <MDL | <MDL | <MDL | <MDL |
| Benzo[k]fluoranthene | 800 | 1700 | 56000 | | 43 | <MDL | <MDL | <MDL |
| Chrysene | 1000 | 1000 | 56000 | | 77 | <MDL | 34.5 | <MDL |
| Dibenzo[a,h]anthracene | 330 | 1000000 | 560 | | <MDL | <MDL | <MDL | <MDL |
| Fluoranthene | 100000 | 1000000 | 500000 | | 138 | 37 | 79.2 | <MDL |
| Fluorene | 30000 | 386000 | 500000 | | 43.1 | 35.5 | 85.4 | <MDL |
| Indeno[1,2,3-cd]pyrene | 500 | 8200 | 5600 | | <MDL | <MDL | <MDL | <MDL |
| Naphthalene | 12000 | 12000 | 500000 | | 1010 | 2820 | 14100 | 26.3 |
| Phenanthrene | 100000 | 1000000 | 500000 | | 300 | 69 | 143 | <MDL |
| Pyrene | 100000 | 1000000 | 500000 | | 194 | 34.7 | 70 | <MDL |
| TOTAL PAHs | | | | | 2014.7 | 2995.7 | 14659.7 | 26.3 |

J - Estimated value

U - Indicates that the compound was analyzed for but not detected

MDL - Not detected above Method Detection Limits

B - The analyte was found in an associated blank as well as in the sample

µg/kg - Micrograms per kilogram

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

NJDEP - New Jersey Department of Environmental Protection

-- Not applicable

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Boxed data indicates parameter was detected above NYSDEC Part 375 Restricted Commercial Standards

**Table 2. Summary of Semivolatile Organic Compounds in Soil Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC | NYSDEC | NYSDEC | Sample Designation: | BP-9/MW-9 | BP-10/MW-10 | BP-11/MW-11 | BP-11/MW-11 |
|--|---------------------------------|--|--------------------------------------|------------------------|-----------|-------------|-------------|-------------|
| | Part 375 Unrestricted Use | Part 375 Protection of Groundwater | Part 375 Restricted Commercial | Sample Date: | 2/21/2007 | 2/21/2007 | 2/22/2007 | 2/22/2007 |
| | | | | Sample Depth (ft bls): | 5-7 | 10-12 | 5-7 | 10-12 |
| Acenaphthene | 20000 | 98000 | 500000 | | <MDL | 22.7 | 22.8 | <MDL |
| Anthracene | 100000 | 1000000 | 500000 | | <MDL | 145 | 30.5 | 29.6 |
| Benzo[a]anthracene | 1000 | 1000 | 5600 | | <MDL | 551 | 69.1 | 37.5 |
| Benzo[a]pyrene | 1000 | 22000 | 1000 | | <MDL | 577 | 75.6 | 33.1 |
| Benzo[b]fluoranthene | 1000 | 1700 | 5600 | | <MDL | 519 | 76.6 | 29.1 |
| Benzo[g,h,i]perylene | 100000 | 1000000 | 500000 | | <MDL | 358 | 60.3 | <MDL |
| Benzo[k]fluoranthene | 800 | 1700 | 56000 | | <MDL | 493 | 68.6 | 30.7 |
| Chrysene | 1000 | 1000 | 56000 | | 42.5 | 630 | 101 | 42.8 |
| Dibenzo[a,h]anthracene | 330 | 1000000 | 560 | | <MDL | 136 | <MDL | <MDL |
| Fluoranthene | 100000 | 1000000 | 500000 | | 52 | 783 | 180 | 101 |
| Fluorene | 30000 | 386000 | 500000 | | 31.7 | 55.4 | 36.7 | 45.6 |
| Indeno[1,2,3-cd]pyrene | 500 | 8200 | 5600 | | <MDL | 319 | 49.8 | <MDL |
| Naphthalene | 12000 | 12000 | 500000 | | 652 | 169 | 1560 | 4480 |
| Phenanthrene | 100000 | 1000000 | 500000 | | 60.8 | 369 | 159 | 126 |
| Pyrene | 100000 | 1000000 | 500000 | | 50 | 1040 | 165 | 98.4 |
| TOTAL PAHs | | | | | 888.6 | 6167.1 | 2655 | 5053.8 |

J - Estimated value

U - Indicates that the compound was analyzed for but not detected

MDL - Not detected above Method Detection Limits

B - The analyte was found in an associated blank as well as in the sample

µg/kg - Micrograms per kilogram

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

NJDEP - New Jersey Department of Environmental Protection

-- Not applicable

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Boxed data indicates parameter was detected above NYSDEC Part 375 Restricted Commercial Standards

**Table 3. Summary of Volatile Organic Compounds in Groundwater Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC AWQSGVs (µg/L) | Sample Designation: | | MW-1 | MW-1 | MW-1 | MW-1 | MW-1 | MW-2 | MW-2 |
|--|-----------------------------|---------------------|--|---------------|-----------------|---------------|-------------|-------------|------------|--------------|
| | | Sample Date: | | 11/28/2006 | 3/14/2007 | 8/28/2008 | 4/29/2013 | 10/16/2013 | 11/28/2006 | 3/14/2007 |
| Benzene | 1 | | | 3560 | 4070 | 2460 J | 5580 | 5940 | 2.54 | 66.9 |
| Toluene | 5 | | | 3000 | 3600 | 889 | 792 | 181 | <MDL | 67 |
| Ethylbenzene | 5 | | | 556 | 699 | 738 | 311 | 707 | <MDL | 5 |
| m&p-Xylenes | 5 | | | 5180 | 2050 | 2240 | NA | NA | 0.7 | 4.8 Y |
| o-Xylene | 5 | | | 2170 | 817 | 776 | NA | NA | 0.9 | 4.8 Y |
| Xylenes (total) | 5 | | | 7350 | 2870 | 3016 | 842 | 1200 | 1.6 | 9.6 Y |
| Total BTEX | | | | 14466 | 11239 | 4643 | 7525 | 8028 | 4.1 | 148.5 |
| Isopropylbenzene | 5 | | | 51.5 | <MDL | 47.7 | NA | NA | <MDL | 3 Y |
| n-Propylbenzene | 5 | | | 84.1 | 63.8 Y | 104 | NA | NA | <MDL | 4 Y |
| 1,3,5-Trimethylbenzene | 5 | | | 739 | 122 Y | 225 | NA | NA | 0.79 | <MDL |
| 1,2,4-Trimethylbenzene | 5 | | | 2680 | 500 | <MDL | NA | NA | 0.97 | 0.9 Y |
| sec-Butylbenzene | 5 | | | <MDL | <MDL | 10.7 J | NA | NA | <MDL | 1.4 Y |
| p-Isopropyltoluene | 5 | | | 60.7 | <MDL | 10.2 | NA | NA | <MDL | <MDL |
| n-Butylbenzene | 5 | | | 66.2 | <MDL | 33.1 | NA | NA | <MDL | <MDL |
| Naphthalene | 10 | | | 454 | 118 Y | 281 | NA | NA | <MDL | <MDL |
| tert-Butylbenzene | 5 | | | <MDL | <MDL | <MDL | NA | NA | <MDL | <MDL |
| MTBE | 10 | | | 392000 | 276000 E | 163000 | 6700 | 2240 | 45 | 167 |
| Total VOCs | | | | 410601.5 | 288042.8 | 168344 | 14225 | 10268 | 50.9 | 324.8 |

J - Estimated value

E - Indicates the concentration of the analyte exceeded the calibration range of the instrument

Y - Indicates the concentration reported was detected below the lowest calibration standard concentration

NA - Not Analyzed

MDL - Not detected above Method Detection Limits

NS - Not Sampled

B - The analyte was found in an associated blank as well as in the sample

µg/L -Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

-- Not applicable

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 3. Summary of Volatile Organic Compounds in Groundwater Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC AWQSGVs (µg/L) | Sample Designation: | | MW-2 | MW-2 | MW-2 | MW-3 | MW-3 | MW-3 | MW-3 |
|--|-----------------------------|---------------------|-------------|-----------|------------|-------------|-----------|-----------|-----------|----------|
| | | Sample Date: | 8/28/2008 | 4/29/2013 | 10/16/2013 | 11/28/2006 | 3/14/2007 | 8/28/2008 | 4/29/2013 | |
| Benzene | 1 | | 182 | NS | NS | <MDL | <MDL | <MDL | | 3 |
| Toluene | 5 | | 57.5 | NS | NS | <MDL | <MDL | <MDL | | ND |
| Ethylbenzene | 5 | | 169 | NS | NS | <MDL | <MDL | <MDL | | ND |
| m&p-Xylenes | 5 | | 381 | NS | NS | <MDL | <MDL | <MDL | | NA |
| o-Xylene | 5 | | 115 | NS | NS | <MDL | <MDL | <MDL | | NA |
| Xylenes (total) | 5 | | 496 | -- | -- | -- | -- | -- | | ND |
| Total BTEX | | | 904.5 | -- | -- | -- | -- | -- | | -- |
| Isopropylbenzene | 5 | | 31.6 | NS | NS | <MDL | <MDL | <MDL | | NA |
| n-Propylbenzene | 5 | | 82 | NS | NS | <MDL | <MDL | <MDL | | NA |
| 1,3,5-Trimethylbenzene | 5 | | 39.5 | NS | NS | <MDL | <MDL | <MDL | | NA |
| 1,2,4-Trimethylbenzene | 5 | | 254 | NS | NS | <MDL | <MDL | <MDL | | NA |
| sec-Butylbenzene | 5 | | 14.4 | NS | NS | <MDL | <MDL | <MDL | | NA |
| p-Isopropyltoluene | 5 | | 7.26 | NS | NS | <MDL | <MDL | <MDL | | NA |
| n-Butylbenzene | 5 | | 39.8 | NS | NS | <MDL | <MDL | <MDL | | NA |
| Naphthalene | 10 | | 122 | NS | NS | <MDL | <MDL | <MDL | | NA |
| tert-Butylbenzene | 5 | | <MDL | NS | NS | <MDL | <MDL | <MDL | | NA |
| MTBE | 10 | | 105 | NS | NS | 48.6 | 6.6 | 3.16 J | | 2.8 |
| Total VOCs | | | 1600.1 | -- | -- | 48.6 | 6.6 | 3.16 | | 5.8 |

J - Estimated value

E - Indicates the concentration of the analyte exceeded the calibration range of the instrument

Y - Indicates the concentration reported was detected below the lowest calibration standard con

NA - Not Analyzed

MDL - Not detected above Method Detection Limits

NS - Not Sampled

B - The analyte was found in an associated blank as well as in the sample

µg/L -Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

-- Not applicable

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 3. Summary of Volatile Organic Compounds in Groundwater Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC AWQSGVs (µg/L) | Sample Designation: | MW-3 | MW-4 | MW-4 | MW-4 | MW-4 | MW-4 | MW-5 |
|--|-----------------------------|---------------------|------------|-------------|-------------|--------------|-------------|-------------|------------|
| | | Sample Date: | 10/16/2013 | 11/28/2006 | 3/14/2007 | 8/28/2008 | 4/29/2013 | 10/16/2013 | 11/28/2006 |
| Benzene | 1 | | 1.3 | 48.7 | 36.6 | 99.4 | 33.8 | 21.9 | <MDL |
| Toluene | 5 | | ND | 14 | 1.3 Y | 3.83 | 1.6 | 0.58 | <MDL |
| Ethylbenzene | 5 | | ND | 98 | 21 | 119 | 32.8 | 8.9 | <MDL |
| m&p-Xylenes | 5 | | NA | 690 | 85 | 113 | NA | NA | <MDL |
| o-Xylene | 5 | | NA | 250 | 21 | 7.24 | NA | NA | <MDL |
| Xylenes (total) | 5 | | ND | 940 | 105 | 120.2 | 11.1 | 3.6 | -- |
| Total BTEX | | | -- | 1100 | 164 | 342.5 | 79.3 | 35 | -- |
| Isopropylbenzene | 5 | | NA | 8.9 | 2.16 Y | 13.7 | NA | NA | <MDL |
| n-Propylbenzene | 5 | | NA | 17 | 6 | 36.8 | NA | NA | <MDL |
| 1,3,5-Trimethylbenzene | 5 | | NA | 114 | 22 | 32.7 | NA | NA | <MDL |
| 1,2,4-Trimethylbenzene | 5 | | NA | 363 | 72 | 127 | NA | NA | 0.8 |
| sec-Butylbenzene | 5 | | NA | 2.6 | <MDL | 3.53 | NA | NA | <MDL |
| p-Isopropyltoluene | 5 | | NA | 9.4 | 2.4 Y | 2.31 | NA | NA | <MDL |
| n-Butylbenzene | 5 | | NA | 13.2 | <MDL | 9.11 | NA | NA | <MDL |
| Naphthalene | 10 | | NA | 50.3 | 17.1 | 25.7 | NA | NA | <MDL |
| tert-Butylbenzene | 5 | | NA | <MDL | <MDL | <MDL | NA | NA | <MDL |
| MTBE | 10 | | 2.4 | 1410 | 1120 | 767 | 156 | 131 | 532 |
| Total VOCs | | | 3.7 | 3088.3 | 1405.2 | 1360.3 | 235.3 | 166 | 532.8 |

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Y - Indicates the concentration reported was detected below the lowest calibration standard con

NA - Not Analyzed

MDL - Not detected above Method Detection Limits

NS - Not Sampled

B - The analyte was found in an associated blank as well as in the sample

µg/L -Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

-- Not applicable

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 3. Summary of Volatile Organic Compounds in Groundwater Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC AWQSGVs (µg/L) | Sample Designation: | | | Sample Date: | | | MW-6 3/14/2007 | MW-6 8/28/2008 | MW-6 4/29/2013 |
|--|-----------------------------|---------------------|-------------|------|--------------|---------------|-------------|-------------------|-------------------|-------------------|
| | | MW-5 | MW-5 | MW-5 | MW-5 | MW-5 | MW-5 | | | |
| Benzene | 1 | <MDL | <MDL | ND | ND | 705 | 298 | 3820 | | |
| Toluene | 5 | <MDL | <MDL | ND | ND | 1470 | 48.5 | 294 | | |
| Ethylbenzene | 5 | <MDL | <MDL | ND | ND | 775 | 225 | 1190 | | |
| m&p-Xylenes | 5 | 1 J | <MDL | NA | NA | 2710 | 351 | NA | | |
| o-Xylene | 5 | <MDL | <MDL | NA | NA | 1130 | 108 | NA | | |
| Xylenes (total) | 5 | 1 Y | -- | ND | ND | 3840 | 459 | 2540 | | |
| Total BTEX | | 1 | -- | -- | -- | 6790 | 1030.5 | 7844 | | |
| Isopropylbenzene | 5 | <MDL | <MDL | NA | NA | 61.2 | 20.9 | NA | | |
| n-Propylbenzene | 5 | <MDL | <MDL | NA | NA | 163 | 51.9 | NA | | |
| 1,3,5-Trimethylbenzene | 5 | <MDL | <MDL | NA | NA | 313 | 109 | NA | | |
| 1,2,4-Trimethylbenzene | 5 | 1.1 Y | <MDL | NA | NA | 1080 | 464 | NA | | |
| sec-Butylbenzene | 5 | <MDL | <MDL | NA | NA | 10 Y | 4.88 | NA | | |
| p-Isopropyltoluene | 5 | <MDL | <MDL | NA | NA | 20.6 | 9.65 | NA | | |
| n-Butylbenzene | 5 | <MDL | <MDL | NA | NA | 27.7 Y | 17.8 | NA | | |
| Naphthalene | 10 | 1.4 Y | <MDL | NA | NA | 135 | 121 | NA | | |
| tert-Butylbenzene | 5 | <MDL | <MDL | NA | NA | <MDL | <MDL | NA | | |
| MTBE | 10 | 57.2 | 48.5 | 7.5 | 11.4 | 115 | 74.9 | 143 | | |
| Total VOCs | | 60.7 | 48.5 | 7.5 | 11.4 | 8715.5 | 1904.5 | 7987 | | |

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NS - Not Sampled

B - The analyte was found in an associated blank as well as in the sample

µg/L -Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

-- Not applicable

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 3. Summary of Volatile Organic Compounds in Groundwater Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC AWQSGVs (µg/L) | Sample Designation: | | MW-6 | MW-7 | MW-7 | MW-7 | MW-7 | MW-8 | MW-8 |
|--|-----------------------------|---------------------|--|-------------|-------------|-------------|--------------|-------------|---------------|--------------|
| | | Sample Date: | | 10/16/2013 | 3/14/2007 | 8/28/2008 | 4/29/2013 | 10/16/2013 | 3/14/2007 | 8/28/2008 |
| Benzene | 1 | | | 4350 | 1620 | 906 | 9210 | 7260 | 6440 | 4380 |
| Toluene | 5 | | | 105 | 2110 | 365 | 1280 | 454 | 7520 | 1350 |
| Ethylbenzene | 5 | | | 1350 | 893 | 163 | 2840 | 2620 | 3070 | 1500 |
| m&p-Xylenes | 5 | | | NA | 2870 | 2920 | NA | NA | 11100 | 11400 |
| o-Xylene | 5 | | | NA | 1240 | 1590 | NA | NA | 3930 | 3530 |
| Xylenes (total) | 5 | | | 1350 | 4110 | 4510 | 11500 | 6280 | 15000 | 14930 |
| Total BTEX | | | | 7155 | 8733 | 5944 | 24830 | 16614 | 32030 | 22160 |
| Isopropylbenzene | 5 | | | NA | 75.9 | 24.4 | NA | NA | 102 | 113 |
| n-Propylbenzene | 5 | | | NA | 119 | 43.2 | NA | NA | 236 | 216 |
| 1,3,5-Trimethylbenzene | 5 | | | NA | 233 | 380 | NA | NA | 534 | 729 |
| 1,2,4-Trimethylbenzene | 5 | | | NA | 860 | 1470 | NA | NA | 2790 | 3200 |
| sec-Butylbenzene | 5 | | | NA | 9.88 | <MDL | NA | NA | 13.6 Y | <MDL |
| p-Isopropyltoluene | 5 | | | NA | 20.9 | 21.3 | NA | NA | 28.5 Y | <MDL |
| n-Butylbenzene | 5 | | | NA | 28 | 33.9 | NA | NA | 40.6 Y | 51.9 |
| Naphthalene | 10 | | | NA | 170 | 616 | NA | NA | 660 | 832 |
| tert-Butylbenzene | 5 | | | NA | <MDL | <MDL | NA | NA | <MDL | <MDL |
| MTBE | 10 | | | 185 | 575 | 361 | 216 | 118 | 8320 | 2710 |
| Total VOCs | | | | 7340 | 10824.7 | 8893.8 | 25046 | 16732 | 44754.7 | 30011.9 |

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NA - Not Analyzed

MDL - Not detected above Method Detection Limits

NS - Not Sampled

B - The analyte was found in an associated blank as well as in the sample

µg/L -Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

-- Not applicable

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 3. Summary of Volatile Organic Compounds in Groundwater Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC AWQSGVs (µg/L) | Sample Designation: | | MW-8 | MW-8 | MW-9 | MW-9 | MW-9 | MW-9 | MW-10 |
|--|-----------------------------|---------------------|----|-----------|----------------|--------------|-----------|-----------|------------|---------------|
| | | Sample Date: | | 4/29/2013 | 10/16/2013 | 3/14/2007 | 8/28/2008 | 4/29/2013 | 10/16/2013 | 3/14/2007 |
| Benzene | 1 | | NS | NS | 512 | 1330 | NS | NS | | 16.7 |
| Toluene | 5 | | NS | NS | 12.1 | 16.6 | NS | NS | | 3.61 Y |
| Ethylbenzene | 5 | | NS | NS | 108 | 39.2 | NS | NS | | 12.5 |
| m&p-Xylenes | 5 | | NS | NS | 63.4 | 135 | NS | NS | | 5.24 Y |
| o-Xylene | 5 | | NS | NS | 7.35 | 16.4 | NS | NS | | 2.25 Y |
| Xylenes (total) | 5 | | NS | -- | 70.7 | 151.4 | -- | -- | | 7.49 Y |
| Total BTEX | | | -- | -- | 702.8 | 1537.2 | -- | -- | | 40.3 |
| Isopropylbenzene | 5 | | NS | NS | 11.1 | <MDL | NS | NS | | 45.1 |
| n-Propylbenzene | 5 | | NS | NS | 15.6 | <MDL | NS | NS | | 106 |
| 1,3,5-Trimethylbenzene | 5 | | NS | NS | 16.4 | 27.8 | NS | NS | | 5.47 |
| 1,2,4-Trimethylbenzene | 5 | | NS | NS | 114 | 114 | NS | NS | | 133 |
| sec-Butylbenzene | 5 | | NS | NS | 1.62 Y | <MDL | NS | NS | | 8.23 |
| p-Isopropyltoluene | 5 | | NS | NS | 4.63 Y | <MDL | NS | NS | | 4.41 Y |
| n-Butylbenzene | 5 | | NS | NS | <MDL | <MDL | NS | NS | | 14.4 |
| Naphthalene | 10 | | NS | NS | 32.4 | 120 | NS | NS | | 7.89 |
| tert-Butylbenzene | 5 | | NS | NS | 0.65 Y | <MDL | NS | NS | | 0.61 Y |
| MTBE | 10 | | NS | NS | 51300 E | 6820 | NS | NS | | 45.6 |
| Total VOCs | | | -- | -- | 52199.2 | 8619 | -- | -- | | 411 |

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NA - Not Analyzed

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B - The analyte was found in an associated blank as well as in the sample

µg/L -Micrograms per liter

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

-- Not applicable

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 3. Summary of Volatile Organic Compounds in Groundwater Samples
5801 Amboy Road, Staten Island, New York**

| Parameter (Concentrations in µg/kg) | NYSDEC AWQSGVs (µg/L) | Sample Designation: MW-10 MW-10 MW-10 MW-11 MW-11 MW-11 MW-11 | | | | | | | |
|--|-----------------------------|--|----------|-----|--------------|---------------|-------------|-------------|--|
| | | Sample Date: 8/28/2008 4/29/2013 10/16/2013 3/14/2007 8/28/2008 4/29/2013 10/16/2013 | | | | | | | |
| Benzene | 1 | <MDL | 6 | ND | 3660 | 2180 | 2680 | 2950 | |
| Toluene | 5 | <MDL | 0.54 | ND | 1190 | 76 | 141 | 57.7 | |
| Ethylbenzene | 5 | <MDL | 0.49 | ND | 1960 | 629 | 1590 | 217 | |
| m&p-Xylenes | 5 | <MDL | NA | NA | 6280 | 1450 | NA | NA | |
| o-Xylene | 5 | <MDL | NA | NA | 1890 | 31 | NA | NA | |
| Xylenes (total) | 5 | -- | 1.3 | ND | 8170 | 1481 | 715 | 176 | |
| Total BTEX | | -- | 8.33 | -- | 14980 | 4366 | 5126 | 3400.7 | |
| Isopropylbenzene | 5 | <MDL | NA | NA | 125 | 48.9 J | NA | NA | |
| n-Propylbenzene | 5 | <MDL | NA | NA | 243 Y | 108 | NA | NA | |
| 1,3,5-Trimethylbenzene | 5 | <MDL | NA | NA | 387 | 210 | NA | NA | |
| 1,2,4-Trimethylbenzene | 5 | <MDL | NA | NA | 0.75 | 1080 | NA | NA | |
| sec-Butylbenzene | 5 | 1.78 | NA | NA | 1720 | 9.05 J | NA | NA | |
| p-Isopropyltoluene | 5 | <MDL | NA | NA | 30.5 | 18.1 J | NA | NA | |
| n-Butylbenzene | 5 | 1.12 | NA | NA | 35.9 | 32.5 J | NA | NA | |
| Naphthalene | 10 | <MDL | NA | NA | 377 | 502 | NA | NA | |
| tert-Butylbenzene | 5 | <MDL | NA | NA | 0.75 Y | <MDL | NA | NA | |
| MTBE | 10 | 6.65 | 5.3 | 1.3 | 5450 | 1410 | 854 | 556 | |
| Total VOCs | | 9.55 | 13.63 | 1.3 | 23349.9 | 7676 | 5980 | 3956.7 | |

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NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

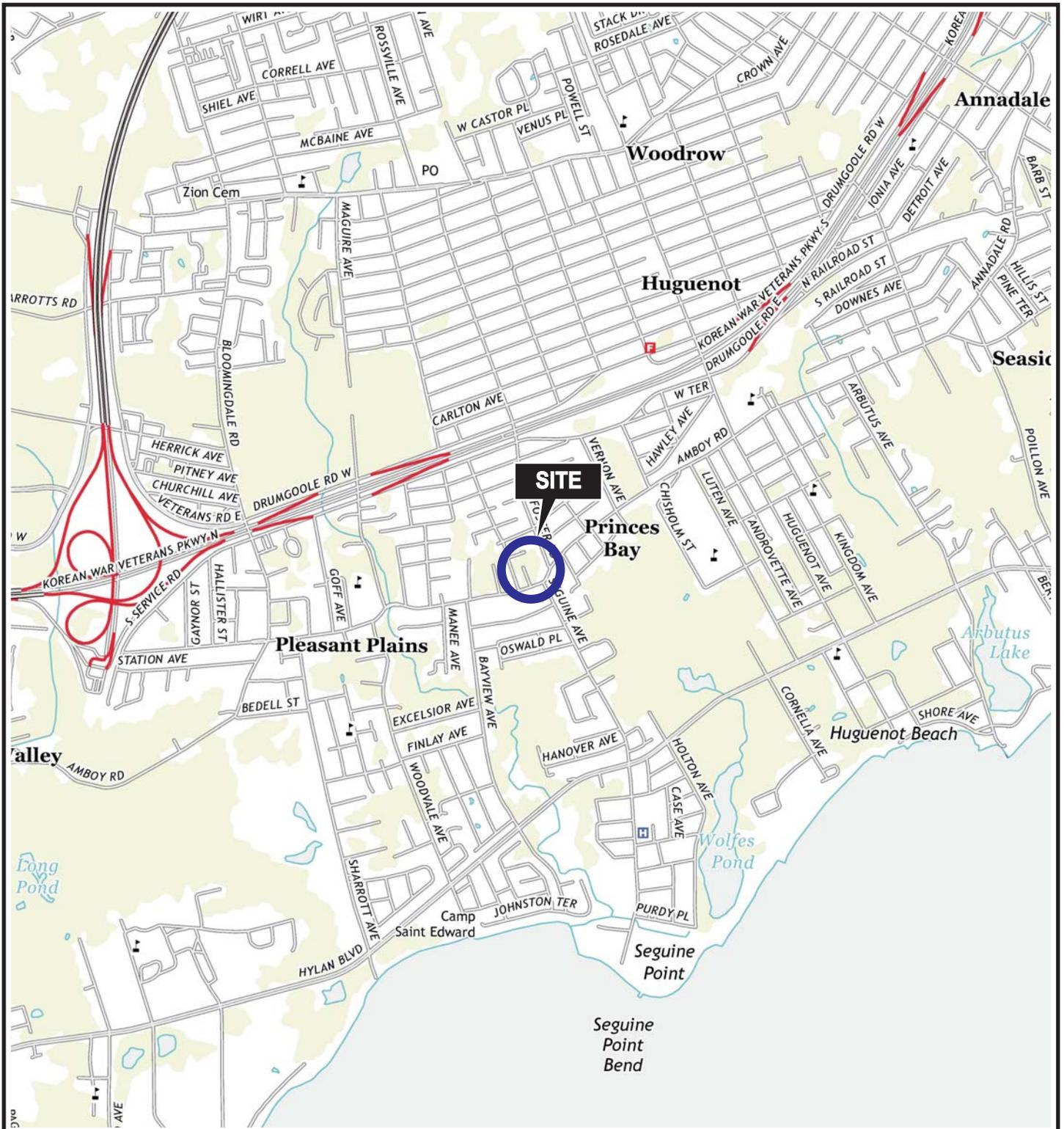
-- Not applicable

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Interim Remedial Measure Work Plan
5801 Amboy Road, Staten Island, New York

FIGURES

- 1. Location of Site**
- 2. Site Plan with Proposed IRM Scope of Work**



QUADRANGLE LOCATION



SOURCE:
USGS; 2013, Arthur Kill, NY-NJ
7.5 Minute Topographic Quadrangle

Title:

**SITE LOCATION MAP
5801 AMBOY ROAD
STATEN ISLAND, NEW YORK**

INTERIM REMEDIAL MEASURE WORK PLAN

Prepared for:

SHORE TO SHORE FOSTER LLC

ROUX
ROUX ASSOCIATES, INC.
Environmental Consulting
& Management

| | |
|----------------------------|----------------------------|
| Compiled by: W.M. | Date: 15JUN15 |
| Prepared by: G.M. | Scale: AS SHOWN |
| Project Mgr.: W.M. | Project No.: 2508.0001Y000 |
| File: 2508.0001Y105.01.CDR | |

FIGURE

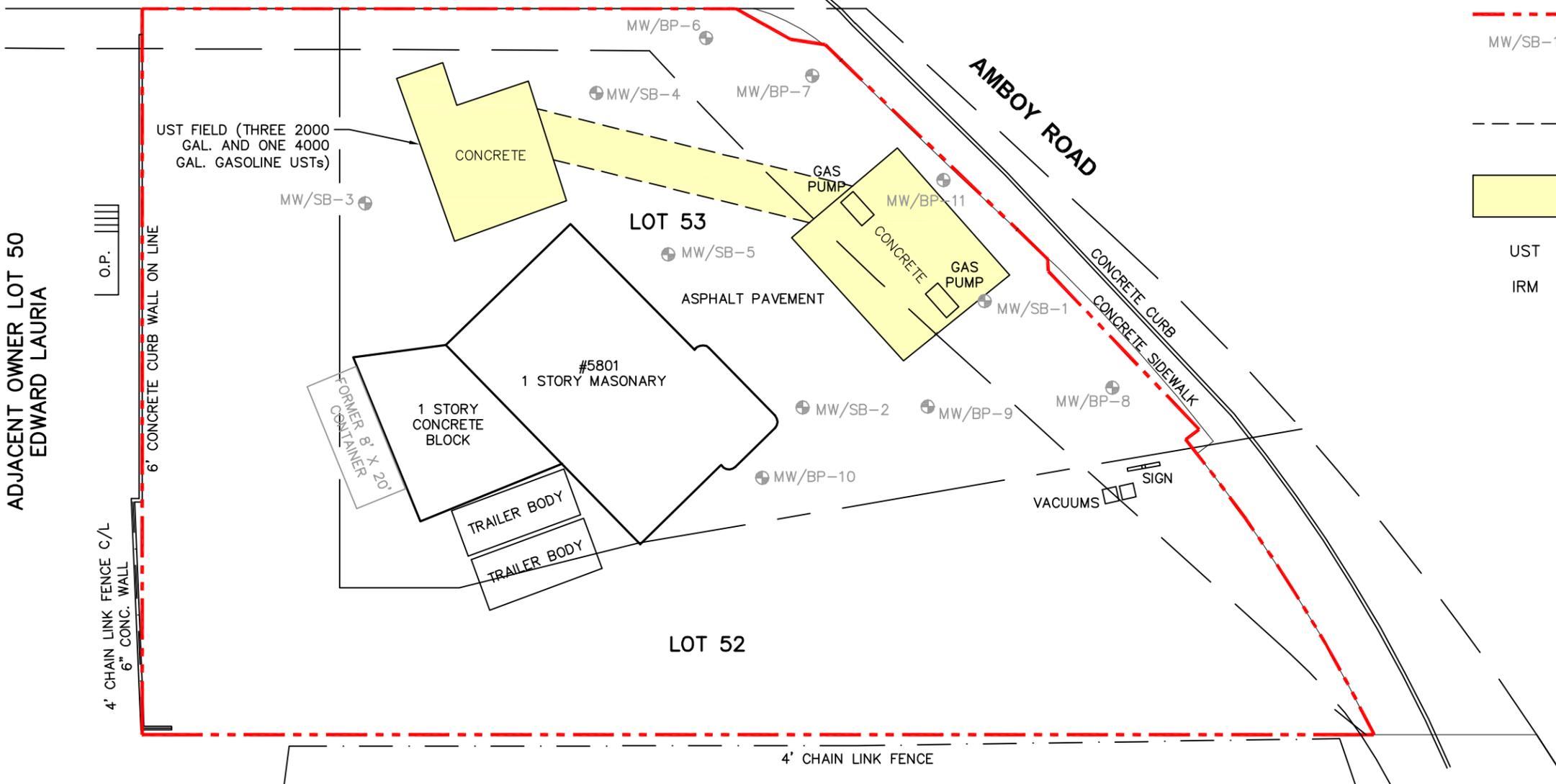
1

V:\CAD\PROJECTS\2508\0001Y105\2508_0001Y105.01.CDR

FOSTER ROAD

CONCRETE CURB

CONCRETE SIDEWALK



ADJACENT OWNER LOT 50
EDWARD LAURIA

4' CHAIN LINK FENCE C/L
6" CONC. WALL
O.P.
6' CONCRETE CURB WALL ON LINE

UST FIELD (THREE 2000 GAL. AND ONE 4000 GAL. GASOLINE USTs)

CONCRETE

LOT 53

ASPHALT PAVEMENT

#5801
1 STORY MASONRY

1 STORY CONCRETE BLOCK

TRAILER BODY

TRAILER BODY

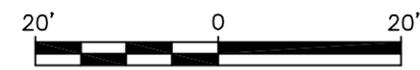
LOT 52

ADJACENT OWNER LOT 39
LAND OF THE CITY OF NEW YORK
N.Y.C.D.E.P.

LEGEND

- - - - - BOUNDARY OF BROWNFIELD CLEANUP SITE
- MW/SB-1 LOCATION AND DESIGNATION OF EXISTING MONITORING WELL/SOIL BORING (INSTALLED BY TYREE BROTHERS)
- - - - - APPROXIMATE LOCATION OF PIPING BETWEEN TANK FIELD AND PUMP ISLAND (TO BE CONFIRMED WITH GEOPHYSICAL SURVEY)
- LIMIT OF UST, PIPING AND PUMP ISLAND REMOVAL (SEE NOTE 2)
- UST UNDERGROUND STORAGE TANK
- IRM INTERIM REMEDIAL MEASURE

- NOTE**
1. BASE MAP ADAPTED FROM MAP SURVEY OF PROPERTY IN THE BOROUGH OF STATEN ISLAND, CITY OF NEW YORK GENERATED BY RAJAKARUNA & ETTLINGER P.C. CONSULTING ENGINEERS AND CITY SURVEYORS JANUARY 1, 2015).
 2. A GEOPHYSICAL SURVEY WILL BE PERFORMED PRIOR TO IRM CONSTRUCTION TO CONFIRM LOCATIONS OF EXISTING USTs AND PIPING AND TO ATTEMPT TO IDENTIFY HISTORICAL USTs THAT MAY BE PRESENT IN THE VICINITY OF THE PUMP ISLAND.



| | | | |
|--|----------------------------|------------------------|--------------------|
| Title: SITE PLAN WITH IRM CSOPE OF WORK 5801 AMBOY ROAD STATEN ISLAND, NEW YORK | | | |
| INTERIM REMEDIAL MEASURE WORK PLAN | | | |
| Prepared For: SHORE TO SHORE FOSTER LLC | | | |
| | Compiled by: N.C. | Date: 15JUN15 | FIGURE 2 |
| ROUX ASSOCIATES, INC. <small>Environmental Consulting & Management</small> | Prepared by: G.M. | Scale: AS SHOWN | |
| | Project Mgr: N.C. | Project: 2508.0001Y000 | |
| | File: 2508.0001Y105.02.DWG | | |

Interim Remedial Measure Work Plan
5801 Amboy Road, Staten Island, New York

APPENDIX

A. 2004 Liquid Blockage Test Report with Sketch of Existing USTs

Interim Remedial Measure Work Plan
5801 Amboy Road, Staten Island, New York

APPENDIX A

**2004 Liquid Blockage Test Report with
Sketch of Existing USTs**

Emergency Contact
 (719) 348-0290
 PB# 2-082902



84 Toledo Street • E. Farmingdale, NY 11735
 Tel: (631) 844-1540 • Fax: (631) 844-0178

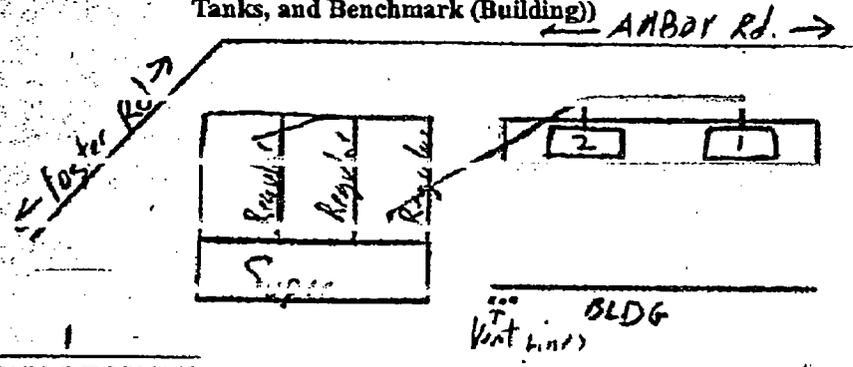
LIQUID BLOCKAGE TEST Data Sheet

Date: 4/29/04

Company Tested: C.J.'s Service Center Inc
 Address: 5801 AMBOY RD.
Staten Island, N.Y.

Stage Two System: Balance
 Tester: B. Kuan JK.

Site Sketch: (Identify Dispensers by Number, Show Location of Dispensers, Tanks, and Benchmark (Building))



TEST POINT: 1
 N2FLOW BACK PRESSURE
 60CFH DRY TEST WET TEST
 .08 .08

| | | |
|---------|------------|------------|
| 100 CFH | DRY | WET |
| | <u>.32</u> | <u>.32</u> |

COMMENTS:

TEST POINT: 2
 N2FLOW BACK PRESSURE
 60CFH DRY TEST WET TEST
 .08 .08

| | | |
|---------|------------|------------|
| 100 CFH | DRY | WET |
| | <u>.28</u> | <u>.28</u> |

COMMENTS:

TEST POINT:
 N2FLOW BACK PRESSURE
 60CFH DRY TEST WET TEST

COMMENTS: Required stage 2 piping, liquid blockage
within both dispensers and in the stage 2 line
between both dispensers.

White Copy - State

Yellow Copy - Ferrandino & Son

Pink Copy - Customer