



G. C. ENVIRONMENTAL, INC.

CONSULTANTS CONTRACTORS

**Automobile Club of New York/AAA
WESTCHESTER, NEW YORK**

Site Management Plan

NYSDEC Site Number: 360095

Prepared for:

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G. C. ENVIRONMENTAL, INC.

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PROFESSIONAL ENGINEER CERTIFICATION

I, Dean Devoe, certify that I am currently a NYS registered professional engineer or Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

A handwritten signature in black ink that reads "Dean Devoe". The signature is written in a cursive style.

Signature, Registered Professional Engineer

The printed name "Dean Devoe" is written in a simple, black, sans-serif font.

Printed Name, Registered Professional Engineer



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SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This document is required as an element of the remedial program at Automobile Club of New York (hereinafter referred to as the Site) under the New York State Inactive Hazardous waste Disposal Site Remediation Program administered by New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Order on Consent Index No. D3-0504-06-09, Site # 360095, which was executed on December 29, 2006.

1.1.1 General

Automobile Club of New York (AAA) entered into an Order on Consent with the NYSDEC to remediate a 0.206 acre property located in the City of White Plains, Westchester County, New York. This Order on Consent required the Remedial Party, AAA, to investigate and remediate contaminated media at the Site. A figure showing the Site location and boundaries of this 0.206-acre site is provided in Figure 1. The boundaries of the Site are more fully described in the metes and bounds site description that is attached as Appendix E, which metes and bounds site description will be part of the environmental easement.

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

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

1.1.2 Purpose

The Site contains contamination left after completion of the remedial action. ECs have been incorporated into the site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of public health and the environment. An

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

This SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) implementation and management of all ECs and ICs; (2) media monitoring; (3) operation and maintenance of all treatment, collection, containment, or recovery systems; (4) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports; and (5) defining criteria for termination of treatment system operations.

To address these needs, this SMP includes three plans: (1) an Engineering and Institutional Control Plan for implementation and management of ECs/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; and (3) an Operation and Maintenance Plan for implementation of remedial collection, containment, treatment, and recovery systems (including, where appropriate, preparation of an Operation and Maintenance Manual for complex systems).

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

It is important to note that:

- This SMP details the site-specific implementation procedures that are to be required by the Environmental Easement. Failure to properly implement the SMP is a violation of the environmental easement, which is grounds for revocation of the Certificate of Completion (COC);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the Order on Consent (Index # D3-0504-06-09; Site #360095) for the Site, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Environmental Easement for the Site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The Site is located at 101 Westmoreland Avenue, White Plains, Westchester County, New York and is identified as Block 1, Lot 1 in the City of White Plains, Westchester County. The Site is situated on an approximately 0.206-acre area bounded by commercial properties to the north, 121 Westmoreland Avenue to the south, Westmoreland Avenue to the east, and Metro North Railroad tracks to the west (see Figure 1). The boundaries of the Site are more fully described in Appendix E- Metes and Bounds.

1.2.2 Site History

Past Uses, Ownership and Structures

From 1905 to 1915, the Site contained a one-story garage and one-story office building on the southeastern portion, two (2) one-story coal, feed and building material sheds and railroad tracks on the western portion. These structures were reportedly occupied by W.S. Verplanck Coal, Feed & Building Materials. According to records on file at the White Plains Building Department, the Site was developed with lumber sheds in 1915.

From 1923 to 1924, the Site was occupied by the Yonkers Fuel & Builders Corp. for coal storage. From 1923 to 1930, the Site contained a one-story office building and a gasoline tank on the southern portion of the Site which were used by Yonkers Builders Supply Co.

The southern portion of the existing on-site building was constructed in 1944. The 1947 aerial photograph and 1950 Sanborn fire insurance map show the southern portion of the Site as developed with a portion of the existing on-site building, which was then utilized as an office.

The remainder of the existing building was constructed in 1951 and was utilized as a factory by Melrose Salvage Co. for the collecting, bailing and shipping of waste paper in 1952.

The Site has been utilized as a automotive repair facility since 1975. The 1987, 1989, 1990, 1992, 1993, 1994 and 1995 Sanborn fire insurance maps and 1980, 1986 and 2000 aerial photographs show the Site as developed with the existing automotive repair building.

Environmental Work Conducted Prior To The Execution Of The Consent Order

- In 2001, two (2) 500-gallon underground storage tanks (USTs) were excavated from the central portion of the Site and removed. They had been used to store

waste oil and No.2 fuel oil. They were replaced with new USTs. Contaminated soil was excavated and removed. The Westchester County Department of Health required the installation of a down-gradient monitoring well (MW-1). It was sampled five times between January 2002 and January 2003.

- In January and February 2005, GCE conducted a pre-purchase Phase I Environmental Site Assessment (Phase I) for AAA. The Phase I report, dated February 4, 2005, pointed out the existing dry well located on the central portion of the on-site building that was filled and covered with a concrete slab, and was approximately 2 feet by 2 feet in dimension. The owner of the Site was not aware of the date this dry well was filled in, but it was done prior to 2001.
- In 2005, GCE performed a subsurface investigation of the Site. This work included installing and sampling seven (7) soil borings (B-1 through B-7), with continuous sampling and two (2) groundwater monitoring wells (MW-2 and MW-3), which were surveyed, groundwater levels were taken and groundwater samples were collected. Petroleum hydrocarbons in soil were detected in samples from B-1 and B-5, located in the central portion of the Site, in the area of the removed USTs. BTEX concentrations in the soil sample from B-1 were 17.9 mg/kg (at 0-2 feet below grade) and from B-5 were 4.12 mg/kg (at 15 to 17 feet below grade). No free product was observed. Petroleum hydrocarbons in groundwater were found only in the area of the removed USTs. BTEX concentrations totaling 41.1 ug/l and 19.3 ug/l were detected in groundwater samples from B-5 and B-7, respectively.

1.2.3 Geologic Conditions

According to the 1970 Bedrock Geologic Map of New York, Lower Hudson Sheet and the 1989 Surficial Geologic Map of New York, Lower Hudson Sheet prepared by the University of the State of New York, the geology in the area of the Site consists of till of variable texture (clay, silt-clay, boulder-clay) usually poor sorted diamict, deposition beneath glacier ice, relatively impermeable (loamy matrix) variable clast content ranging from abundant well-rounded diverse lithologies in valley tills to relatively angular, more limited lithologies in upland tills, tends to be sandy in areas underlain by gneiss or sandstone, potential land instability on steep slopes, thickness variable (1-50 meters), which is underlain by bedrock composed of the Manhattan formation, schists and amphibolite. According to a subsurface investigation previously conducted by GCE at the Site depth to bedrock at the Site is greater than 28 feet below grade.

Based on the topography and local waterways, local groundwater flow direction in the area of the Site could be inferred to be west-northwest towards a portion of Bronx River located approximately 700 feet to the northwest of the Site. According to a subsurface investigation previously conducted by GCE at the Site, depth to groundwater at the Site is approximately 28 feet below grade level. See Figure 2 showing geologic section and Figure 3 for groundwater flow.

1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the Site. The results of the RI are described in detail in the following reports:

- Site Characterization and Interim Remedial Measures (IRM) Work Plan, dated May 11, 2007 (the SC/IRM Work Plan).
- Revised Site Characterization Report, dated November 11, 2013 (the SC Report).

Below is a summary of site conditions when the RI was performed in 2007 through 2009.

Soil

- In 2007, soil surrounding the former dry well was further delineated and additional borings were installed and sampled at the Site. Six (6) soil borings, B-12 through B-17 were installed in that area and soil samples from these borings were analyzed. The results from B-12, advanced through the concrete pad covering the former dry well (6 inches away from B-1), detected PCE at 14 mg/kg. All other samples were either non-detect or below standards except for B-15 and B-14, which contained low concentrations of PCE. The sampling also determined that the area by the former dry well contained old fill material in the top two (2) feet.
- In 2008, three additional soil borings were installed, B-18 through B-20. Soil samples from soil borings B-12 through B-20 were obtained and analyzed. All the samples were either non-detected or detected below the regulatory standards.
- In January 2009, the IRM was conducted which included excavating contaminated soil from the area of the former dry well.
- In February and March 2009, as part of the SC investigation, four (4) additional soil borings were installed (B-21 through B-24) in the parking lot on the northeast side of the Site. Soil samples were collected and analyzed. Petroleum hydrocarbons found in soil samples from B21 through B-24 were mostly below regulatory standards. The soil sample from B-21 contained BTEX at concentrations below the regulatory standards. The soil samples contained no detectable VOCs or SVOCs or detections at concentrations far below regulatory standards. Soil samples from B-23 and B-24 contained a few SVOCs, (benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene and chrysene), above regulatory standards but only in the fill material (0 to 3 feet below grade). The soil below this interval was found to be clean.

Site-Related Groundwater

- In February and March 2009, six (6) more groundwater monitoring wells were installed (MW-4 through MW-9). Groundwater samples from the central portion of the Site located close to and down-gradient from the dry well contained PCE and its breakdown products, but at concentrations below 5 ug/l, which is the applicable groundwater standard. Concentrations of PCE were found to increase to the north and east and were highest in MW-6 and MW-9 (13 to 27 ug/l) along the northern boundary and in MW-2 and MW-3 (16 to 20 ug/l) along the eastern boundary of the Site. (See Figure 7 – PCE Contours in Groundwater). These data indicate that the main source(s) of PCE in groundwater are located off-site.
- 1,1,1-TCA and its breakdown products (1,1-DCA and 1,1-DCE) increase to the east and southwest and are highest in MW-2 (57 ug/l) along the eastern boundary of the Site and in MW-7 and MW-8 (100 to 240 ug/l) along the southwestern boundary of the Site. (See Figure 6 – 1,1,1-TCA Contours in Groundwater.) This data along with the soil vapor data discussed in the next section, are indicative of 1,1,1-TCA originating off-site.
- During the last sampling round of the SC work in 2009, petroleum hydrocarbons were found in MW-9, located down-gradient of the removed USTs. However, the concentration of BTEX (2 ug/l) was detected far below groundwater standards. This data indicated that the source of petroleum contamination was most likely the former/removed USTs that were located near soil boring B-5. The data also indicated that the petroleum plume was limited and moving very slowly in the northwest direction, along the general direction of groundwater flow. Since the on-site source of petroleum, the USTs, were removed in 2001, the groundwater results from 2009 demonstrated that natural attenuation over the course of eight (8) years had successfully addressed the residual petroleum contamination. The area beneath the Building was essentially clean of petroleum products by 2009.
- During the 2009 SC investigation, petroleum hydrocarbons were detected in the groundwater sample taken from soil boring B-21, located in the parking lot along the northern boundary, about 25 feet to the east and cross-gradient of the location of the former UST area. The total BTEX concentrations (2 ug/l) were far below the groundwater standard, but the sample did contain concentrations of 1,2,4-trimethylbenzene (23 ug/l), 1,3,5-trimethylbenzene (12 ug/l) and naphthalene (64 ug/l) all of which exceed their respective groundwater standard. (See Table 6.) The source of this impact is not known and most likely is located off-site, on property located to the north of the Site.

Site-Related Soil Vapor Intrusion

- As part of the 2009 SC, soil vapor intrusion sampling was conducted. Low BTEX concentrations, ranging between 40.38 and 247.26 mcg/m³, were detected in the

soil vapor samples (SS-1 through SS-9, except for SS-7) and in the indoor (627.28 and 1,799.75 mcg/m³) and outdoor (9.96 mcg/m³) ambient air samples conducted as part of the 2009 SC. Concentrations of BTEX detected in the deep soil vapor probe SS-7 was 1,349.80 mcg/m³. SS-7 is located down-gradient of the removed USTs.

- The concentration of 1,1,1-TCA detected in SS-9 indicates that 1,1,1-TCA most likely originated from up-gradient off-site sources. In addition, SS-9 (deep soil vapor sample just above the groundwater table, located along the eastern boundary of the site, near MW-2) contained breakdown products of 1,1,1-TCA, namely 1,1-DCE (83.37 ug/m³) and 1,1-DCA (33.22 ug/m³), which were not detected in any other soil vapor samples. The PCE concentration detected in SS-9 was also elevated (3,460 ug/m³), further suggestive of an off-site (up-gradient) contribution of PCE to the groundwater.
- The concentration of PCE (6,785 ug/m³) in SS-3 (shallow sub-slab soil vapor sample, located in the southern portion of the garage building, close to the painting room) indicates that potential source of PCE is located in the area of SS-3, which is proposed to be addressed by installation of the SVE system in this area.
- The results of the 2009 SC investigation found that the former dry well was a small local source of chlorinated solvents from historical operations.

Underground Storage Tanks

- In 2007, the 550-gallon waste oil UST was tightness tested, closed and abandoned in place.

1.4 SUMMARY OF REMEDIAL ACTIONS

The Site was remediated in accordance with the NYSDEC-approved SC/IRM Work Plan, dated May 11, 2007.

The following is a summary of the Remedial Actions performed at the Site:

1. Excavation of soil/fill exceeding restricted commercial SCOs to a depth of 4.5 feet in the area by the former dry well.
2. Development and implementation of a SMP for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) ICs and ECs, (2) monitoring, (3) operation and maintenance and (4) reporting;
3. Installation of the soil vapor extraction (SVE) system.

The IRM remedial activities were completed at the Site in January, 2009.

1.4.1 Removal of Contaminated Materials from the Site

The contaminated soil removal was accomplished through an IRM that removed the contaminated soil to the depth of approximately 4.5 feet in the area of the dry well.

Under the IRM, a total of 27.22 tons of impacted soil was removed and disposed off at the Clean Earth of Carteret, NJ disposal facility. All waste disposal permits were provided, copies of which are provided in the final engineering report (FER).

A list of the soil cleanup objectives (SCOs) for the primary contaminants of concern (COCs) and applicable land use for this Site is provided in Table 1. The excavated area is depicted in Figure 4.

1.4.2 Site-Related Treatment Systems

The following remedy will be installed upon approval of the NYSDEC.

The SVE System

- The SVE will be installed at the exterior rear of the building at the western portion of the Site adjacent to the exterior auto detailing area.
- The SVE system will consist of a regenerative blower, inlet and outlet plumbing, air filter, moisture separator, ambient air valve, vacuum gauges, power disconnect and a thermal overload circuit (See Figure 7: SVE Layout).
- Two (2) soil vapor extraction points (SVE-1 & SVE-2) will be located where elevated concentrations of VOCs were encountered in the automotive repair shop area (near soil vapor sample SS-3). The SVE will capture and reduce volatilized VOCs below the sub-slab area. Underground and aboveground piping will be connected from each SVE well to the equipment area where the piping is manifolded and connected to the vacuum blower. A regenerative vacuum blower rated at 2 HP and capable of 80-150 CFM at 47 inches of water will be used to recover the vapors at the SVE wells. The vapor stream will go through a moisture (air/ water) separator (37 gallon capacity) where high efficiency cyclonic separation takes place which is outfitted with drain for convenient removal of fluids. Clogged filters will be diagnosed by vacuum gauges which are mounted before and after the air filter and are adjusted using ambient air valve. The Pressure Switch (PS) and High Level Switches (LSHH) will act as alarms and are interlocked to the blower which helps monitor the SVE blower operation, flow, pressure and potential malfunctions. The final vapors coming

out of moisture separator would be treated using either vapor phase carbon or catalytic incinerator.

Remediation Objectives: The purpose/remedial objectives/goals of the SVE system are two-fold; one is to remediate the elevated soil vapor levels in the unsaturated soils in the vicinity of SS-3, and the second is to control migration of soil vapor and reduce chlorinated VOC concentrations under the slab. Remedial objective completion will be based on air samples collected from soil vapor monitoring points and soil vapors collected in the sub slab area. Pressure differential testing will be conducted to verify that adequate negative pressure is created under the slab.

SVE Shutdown: A significant reduction in VOC mass is expected to occur within the first 6 to 12 month operational period. During this period, the following rationale will be utilized to assess the effectiveness of the SVE system and determine the optimum time to permanently shut down the system. The SVE system will be temporarily shut down when the mass of VOCs removed during any two consecutive monitoring periods is determined to be equal to or less than 10% of the mass removed during the prior period. The shut off period will be one month. The SVE system will then be turned on. If the SVE system shows similar results (less than 10% reduction during the next two consecutive monitoring periods), the SVE system should be shut off permanently as it has reached its limit of effectiveness.

Operations and Monitoring: Process and performance monitoring will be conducted during SVE system operations to evaluate overall vapor concentrations and track mass removal rates over time. Well field vapor concentrations will also be periodically evaluated (using vapor probes or the SVE wells under either dynamic (i.e. system on or static system off) conditions) to assess the progress of remediation activities. This data will be used as part of the system optimization strategy which will include maximizing VOC mass removal rates by focusing SVE wells on areas of higher vapor concentration/vapor production.

Schedule: The SVE system is anticipated to begin operation in mid 2015 and operate for up to 2-3 years.

Environmental Easement: An Environmental Easement will be filed that will require compliance with the SMP and the ECs and ICs.

1.4.3 Remaining Contamination

The following contamination currently remains at the Site As noted below, some of this is expected to be remediated by the SVE System.

- PCE along the northern and eastern boundaries of the Site, in MW-2 and MW-3, and in SS-9 which, as noted in Section 1.2.2, is likely coming from up-gradient

off-site properties located to the north and east of the Site. (See Figure 7 – PCE Contours in Groundwater).

- 1,1,1-TCA and its breakdown products (1,1-DCA and 1,1-DCE) were highest in MW-2 (57 ug/l), along the eastern boundary of the Site, and in MW-8 and MW-7 (100-249 ug/l) along the southwestern boundary of the Site (See Section 1.2.2 and Figure 6 – 1,1,1-TCA Contours in Groundwater). 1,1,1-TCA concentration at SS-9, located along the eastern boundary of the Site, near MW-2, is the highest among the all soil vapor samples (3,938 ug/m³), also indicating that 1,1,1-TCA originated most likely from the groundwater from up-gradient off-site source(s).
- PCE, TCE and 1,1,1-TCA were detected in all the soil vapor samples (SS-1 through SS-9) and in the indoor ambient air samples. The installation and operation of the SVE system in this area is expected to address the chemicals under and inside the Building.
- The concentration of PCE (6,785 ug/m³) detected in SS-3 (shallow sub-slab soil vapor sample, located in the southern portion of the garage building, close to the painting room) indicates that a potential source of PCE is located in the area of SS-3, which is proposed to be addressed by installation and operation of the SVE system in this area.

Figures 4, 5 & 6 summarize the results of all soil/groundwater/vapor samples remaining at the Site after completion of the Remedial Action that meet the SCOs for unrestricted use of the Site.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 INTRODUCTION

2.1.1 General

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

2.1.2 Purpose

This plan provides:

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

2.2 ENGINEERING CONTROLS

2.2.1 Engineering Control Systems

2.2.1.1 Soil Cover

Exposure to remaining contamination in soil/fill at the Site is prevented by a soil cover system placed over the Site. The building slab and pavement will act as a site cover for residual contaminated soils that exceed soil clean up objectives for the site use.

The Excavation Work Plan in Appendix A outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 4 of this SMP.

2.2.1.2 Soil Vapor Extraction System

Since contaminated soil vapor exists beneath the Site, an EC is required to protect human health and the environment. The Site has the following primary ECs, as described in the following subsections.

Overview of SVE Design and Operational Strategy:

- The goal at this Site is to reduce chlorinated solvent vapors and create a vacuum within the sub-slab soils as a vapor intrusion control. The SVE system will focus on extracting vapors via the SVE extraction wells to be installed through the facility's slab floor at two locations.
- The SVE system will be installed at the exterior rear of the building at the western portion of the Site adjacent to exterior auto detailing area.
- The SVE system consists of a regenerative blower, inlet and outlet plumbing, air filter, moisture separator, ambient air valve, vacuum gauges, power disconnect and a thermal overload circuit. (See Figure 7: Basic SVE Layout).
- Two (2) soil vapor extraction points (SVE-1 & SVE-2) will be selected within the locations where elevated VOC concentration were detected under the sub-slab in the automotive repair shop area (near soil vapor sample SS-3). The SVE system will capture and remove volatilized VOCs in the sub-slab area using two vent wells (SVE-1 & SVE-2) that are under negative pressure developed by a vacuum blower. The blower will be installed at the exterior rear of the building at the western portion adjacent to exterior auto detailing area of the Site. Underground and aboveground piping will connect each SVE well to the equipment area where the piping is manifolded and connected to the vacuum blower. A regenerative vacuum blower rated at 2 HP and capable of 80-150 CFM at 47 inches of water is used to recover the vapors at the SVE wells. The vapor stream progresses through a moisture (air/ water) separator (37 gallon capacity) where high efficiency of cyclonic separation takes place and is outfitted with drain for convenient removal of fluids. The clogged filter is diagnosed by vacuum gauges which are mounted before and after the air filter and are adjusted using ambient air valve. The PS and LSHH act as alarms and are interlocked to the blower which helps monitor the SVE blower operation, flow, pressure and potential malfunctions. The final vapors coming out of moisture separator will be treated using either vapor phase carbon or catalytic incinerator.

Procedures for monitoring, operating and maintaining the SVE system are provided in the Operation and Maintenance Plan in Section 4 of the Site Management Plan (SMP). Procedures for monitoring the system are included in the Monitoring Plan (Section 3.4) of this SMP. The Monitoring Plan also addresses inspection procedures that must occur after any severe weather condition has taken place that may affect on-site ECs.

2.2.2 Criteria For Completion of Remediation/Termination of Remedial Systems

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

2.2.2.1 Composite Cover System

The cover system will be a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals as presented in the SMP.

2.2.2.2 Soil Vapor Extraction System (SVE System)

The SVE system will not be discontinued unless prior written approval is granted by the NYSDEC. In the event that monitoring data indicates that the SVE system is no longer required, a proposal to discontinue the system will be submitted by the property owner. Conditions that warrant discontinuing the SVE system include contaminant concentrations in groundwater that: (1) reach levels that are consistently below ambient water quality standards, (2) have become asymptotic to a low level over an extended period of time as accepted by the NYSDEC, or (3) the NYSDEC has determined that the SVE system has reached the limit of its effectiveness. This assessment will be based in part on post-remediation contaminant levels in groundwater collected from monitoring wells located throughout the site. The system will remain in place and operational until permission to discontinue its use is granted in writing by the NYSDEC.

2.2.2.3 Groundwater Monitored Natural Attenuation

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

2.3 INSTITUTIONAL CONTROLS

A series of ICs is required to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Site to commercial or industrial use only. Adherence to these ICs on the Site will be required by the Environmental Easement and will be implemented under this SMP. These ICs are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Soil vapor and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP;

ICs that are identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

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

- The property may only be used for commercial or industrial use provided that the long-term ECs and ICs included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted and restricted residential use, without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for any buildings developed on site, and any potential impacts that are identified must be monitored or mitigated;

- Vegetable gardens and farming on the property are prohibited;
- The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

2.3.1 Excavation Work Plan

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

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

2.3.2 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures located over areas that contain remaining contamination and the potential for soil vapor intrusion (SVI) has been

identified, an SVI evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This mitigation system will include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH “Guidance for Evaluating Vapor Intrusion in the State of New York”. Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

Preliminary (unvalidated) SVI sampling data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation. SVI sampling results, evaluations, and follow-up actions will also be summarized in the next Periodic Review Report.

2.4 INSPECTIONS AND NOTIFICATIONS

2.4.1 Inspections

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

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

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

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

2.4.2 Notifications

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

- 60-day advance notice of any proposed changes in site use that are required under the terms of the Order on Consent 6NYCRR Part 375, and/or Environmental Conservation Law.
- 7-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundation, structures or engineering control that reduces or has the potential to reduce the effectiveness of an Engineering Control and likewise any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

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

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the Order on Consent, and all approved work plans and reports, including this SMP

- Within 15 days after the transfer of all or part of the site, the new owner’s name, contact representative, and contact information will be confirmed in writing.

2.5 CONTINGENCY PLAN

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

2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance the Owner or Owner’s representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to a qualified environmental professional. These emergency contact lists must be maintained in an easily accessible location at the site.

Table 1: Emergency Contact Numbers

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

Table 2: Contact Numbers

G C Environmental, Inc.	631-206-3700
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* Note: Contact numbers subject to change and should be updated as necessary

2.5.2 Map and Directions to Nearest Health Facility

Site Location: 101 Westmoreland Avenue, White Plains, New York

Nearest Hospital Name: New York-Presbyterian Hospital

Hospital Location: 21 Bloomingdale Road, White Plains, New York 10605

Hospital Telephone: 914-997-5780

Directions to the Hospital:

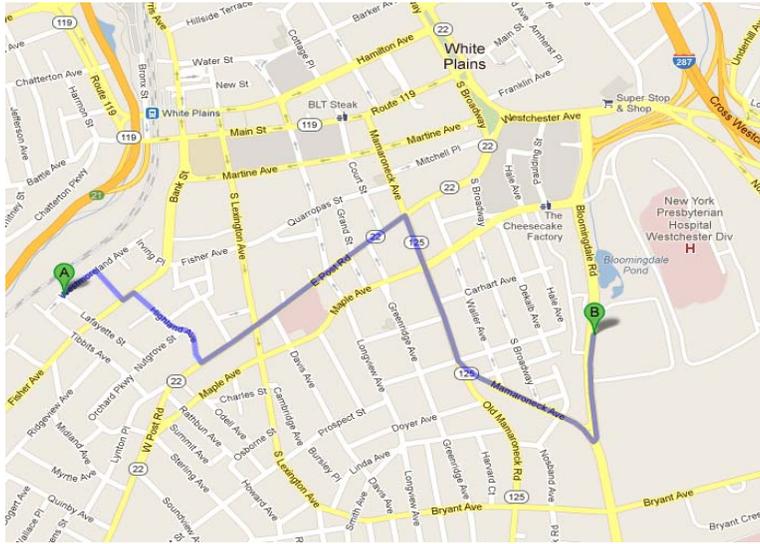
To get to the hospital, go take the 1st right onto Interval St, turn left onto Fisher Avenue, take the 1st right onto Highland Avenue, turn left onto W. New York Post Road/W. Post Road, continue to follow W. Post Road, turn right onto Mamaroneck Avenue, take the 1st left onto Maple Avenue and turn right into the hospital.

Total Distance: 1.4 miles

Total Estimated Time: 5 min

Map Showing Route from the site to the Hospital:

The closest hospital to the site is New York-Presbyterian Hospital/Westchester Division, 21 Bloomingdale Road, White Plains, New York 10605.



2.5.3 Response Procedures

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

3.0 SITE MONITORING PLAN

3.1 INTRODUCTION

3.1.1 General

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

3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

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

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

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

- Annual inspection and periodic certification.

Quarterly or Semiannual monitoring of the performance of the remedy and overall reduction in contamination on-site will be conducted for the first 2 years. The frequency thereafter will be determined by NYSDEC. Trends in contaminant levels in air, soil, and/or groundwater in the affected areas, will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring programs are summarized in Table 3 and outlined in detail in Sections 3.2 and 3.3 below.

Table 3: Monitoring/Inspection Schedule

Monitoring Program	Frequency*	Matrix	Analysis
SVE System	Monthly	SVE Technician	Field
Cover System	Monthly	Field Technician	Field
Groundwater	Quarterly for 1 st year, semi annually thereafter	Groundwater	VOCs/SVOCs

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

3.2 Cover System Monitoring

The cover system will be a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals. Exposure to remaining contamination in soil/fill at the Site is prevented by a soil cover system placed over the Site. The building slab and pavement will act as a site cover for residual contaminated soils that exceed soil clean up objectives for the site use. Monitoring of active ECs, which are employed at fewer sites, is included with operation and maintenance of these systems in Chapter 4.

3.3 Media Monitoring Program

3.3.1 Groundwater Monitoring

Groundwater monitoring will be performed on a periodic basis to assess the performance of the remedy.

The network of monitoring wells has been installed to monitor both up-gradient and down-gradient groundwater conditions at the Site. The network of on-site wells has been designed based on the following criteria:

The sampling frequency may be modified with the approval NYSDEC. The SMP will be modified to reflect changes in sampling plans approved by NYSDEC.

Monitoring well construction logs are provided in Appendix C. Deliverables for the groundwater monitoring program is specified below.

3.3.1.1 Sampling Protocol

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

3.3.1.2 Monitoring Well Repairs, Replacement and Decommissioning

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

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

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

3.4 SITE-WIDE INSPECTION

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

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

- Compliance with permits and schedules included in the Operation and Maintenance Plan; and
- Confirm that Site records are up to date.

3.5 MONITORING QUALITY ASSURANCE/QUALITY CONTROL

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

- QA/QC Objectives for Data Measurement;
- Sampling Program:
 - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
 - Sample holding times will be in accordance with the NYSDEC ASP requirements.
 - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Custody;
- Calibration Procedures:
 - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.
 - The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures;
- Preparation of a Data Usability Summary Report (DUSR), which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.
- Internal QC and Checks;
- QA Performance and System Audits;

- Preventative Maintenance Procedures and Schedules;
- Corrective Action Measures.

3.6 MONITORING REPORTING REQUIREMENTS

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

All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. The report or letter will include, at a minimum:

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

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the monitoring program deliverables are summarized in Table 4 below.

Table 4: Schedule of Monitoring/Inspection Reports

Task	Reporting Frequency*
SVE Inspections	Quarterly SVE Inspections Reports and Annual SVE Inspections Report
Cover System	Quarterly Cover System Reports and Annual Cover System Report
Groundwater Monitoring	Quarterly Groundwater Monitoring Reports and Annual Groundwater Monitoring Report

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

4.0 OPERATION AND MAINTENANCE PLAN

INTRODUCTION

This Operation and Maintenance Plan describes the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the Site. This Operation and Maintenance Plan:

- Includes the steps necessary to allow individuals unfamiliar with the Site to operate and maintain the SVE system;
- Includes an operation and maintenance contingency plan; and,
- Will be updated periodically to reflect changes in site conditions or the manner in which the SVE systems are operated and maintained.

Information on non-mechanical ECs (i.e. soil cover system) is provided in Section 3 - Engineering and Institutional Control Plan. A copy of this Operation and Maintenance Plan, along with the complete SMP, will be kept at the Site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of the SMP. Maintenance reports and any other information generated during regular operation at the Site will be kept on file on-site and all reports, forms and other relevant information generated will be available upon request to the NYSDEC and submitted as part of the Periodic Review Report, as specified in Section 5 of this SMP.

GENERAL SYSTEM MONITORING

The general system operations include routine process monitoring, performance monitoring, and compliance monitoring. The goal of monitoring is to record SVE system data to assess the progress towards the remediation objectives.

PROCESS MONITORING

Process monitoring includes measurement of flow rates, vacuums/pressures, vapor concentrations, within the SVE process streams. The process monitoring data will be used to evaluate the mechanical performance of the system to ensure that equipment is operating within the desired performance range (i.e., target flow rates) and within manufacturer's specifications. In addition, this data will aid in identifying mechanical issues and/or for system troubleshooting purposes.

PERFORMANCE MONITORING

Performance monitoring data generally includes:

Measurement of vapor concentrations in the SVE process (via field PID measurement and/or vapor samples for laboratory analysis).

Measurement of vapor concentrations, vacuums/pressures, flow rates, temperatures at wellheads and vapor probes (to assess subsurface air flow patterns and changes in vapor concentrations as the system is operated over time).

The performance monitoring data is used in conjunction with the process monitoring data to estimate the vapor mass removal rates, total mass removed by the SVE system, and provide data regarding vapor concentrations remaining in the subsurface.

COMPLIANCE MONITORING

Compliance monitoring data has a specific purpose to satisfy the air and water discharge permit requirements. Compliance monitoring generally includes:

GROUNDWATER LEVEL MONITORING

A key aspect to the operation strategy will be regular monitoring of the Site groundwater levels.

WELL FIELD OPTIMIZATION

The following well flow optimization strategies will be employed during the operation phase of the SVE system:

Adjustment of steam injection ratios for the initial soil heating phase, and/or to maintain the desired subsurface temperatures during operation.

Conduct static soil-gas rebound surveys to determine which portions of the treatment area have achieved adequate COC mass reduction (which would be quantified with soil sampling).

Maximizing VOC mass removal rates as much as possible by focusing on SVE wells within areas of higher vapor concentration/vapor production.

SOIL SAMPLING

Soil cores will be collected and field-screened for total organic vapors at discrete intervals using a PID and jar vapor-headspace methods. Screening results will be considered when selecting the soil interval to be submitted for laboratory analysis of VOCs by USEPA Method 8260.

The soil data will be used to assess overall COC mass reduction on the soils over the course of the remediation process. A brief description of the soil sampling program is

included in this section. A more detailed soil sampling program, with soil sample counts, depths, locations, and selection criteria, will be discussed in the SAP (refer to Section 16.2.3). Soil sampling will be conducted annually.

BASELINE SOIL SAMPLING

The soil characterization sampling data (refer to the Characterization Report) will be used as the baseline soil concentrations. The initial COC mass in each treatment area was based on this data and was discussed in the above sections.

INTERIM SOIL SAMPLING

Interim sampling will be performed to demonstrate the progress of soil treatment. Interim soil samples will be collected annually following start-up of the SVE system, as applicable.

FINAL SOIL SAMPLING

Based on process and performance monitoring data, when the SVE system has reached an asymptotic mass removal condition, a final soil sampling event will be conducted to determine the overall level of COC mass reduction on the soils.

DATA EVALUATION

Process and performance monitoring data will be entered into a spreadsheet to track trends in the data. Additional monitoring can be conducted if warranted based on observed data trends (for example, if blower temperatures collected during the process monitoring indicates a potential impending maintenance issue).

STATUS REPORTING

General status reporting will be conducted on a quarterly basis. The status reports will detail:

- Total mass removed (per reporting period and cumulatively over the operational lifetime of the system).
- Process parameters recorded during site visits and downloaded via the telemetry system.
- Flow, pressure, vacuum, and total VOC measurements collected in the field at the SVE wellheads.
- Soil temperatures and heating performance.

- Laboratory sample results and the associated laboratory and data validation reports.
- SVE discharge monitoring results.
- Any system outages and corrective measures taken.
- Scheduled maintenance, reconfiguration, or system optimization events.

SVE SHUTDOWN PROTOCOL

Determination of when the remedial objectives have been met will be based on air samples collected from soil vapor monitoring points and soil vapors collected in all the sub slab area. A significant reduction in VOC mass is expected within an approximate 6 to 12 months operational period. During this period, the following rationale will be utilized to assess the effectiveness of the SVE system, and determine the optimum time to permanently shut down the system. The mass of VOCs that are removed from the groundwater will be determined every three to six months. If, in any two consecutive monitoring periods of operation, the mass of VOCs which have been removed in those monitoring periods is less than or equal to 10 percent of the maximum mass of VOCs removed in any one prior period, the SVE system will be temporarily shut down for one month. A reduction in the mass of VOCs removed in two monitoring periods to 10 percent of the maximum mass previously removed in any one monitoring period is indicative of a significant decline in effectiveness of the SVE system. Essentially, when this criterion is reached, it would take an approximately nine months or longer of continued operation at the reduced mass of CVOCs removal rate (<10 percent) to extract an amount equal to the maximum mass of CVOCs that had been removed in the maximum prior period. At this point, the criterion illustrates that the operation of the SVE system has reached a point of diminishing returns.

5. INSPECTIONS, REPORTING AND CERTIFICATIONS

5.1 SITE INSPECTIONS

5.1.1 Inspection Frequency

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

5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

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

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

5.1.3 Evaluation of Records and Reporting

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

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

5.2 CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, a Professional Engineer licensed to practice in New York State will prepare the following certification:

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

- The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program ; and
- The information presented in this report is accurate and complete.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class “A” misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Dean Devoe, am certifying as owners’ Designated Site Representative for the Site. The signed certification will be included in the Periodic Review Report described below.

5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted to the Department every first or as appropriate year, beginning fifteen months after the Satisfactory Completion Letter is

issued. In the event that the site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the site described in Appendix E (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 30 days of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report. The report will include:

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

- A performance summary for all treatment systems at the Site during the calendar year, including information such as:
 - The number of days the system was run for the reporting period;
 - The average, high, and low flows per day;

 - The contaminant mass removed;

 - A description of breakdowns and/or repairs along with an explanation for any significant downtime;

 - A description of the resolution of performance problems;

 - A summary of the performance, effluent and/or effectiveness monitoring; and

 - Comments, conclusions, and recommendations based on data evaluation.

The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Central Office and Regional Office in which the site is located, and in electronic format to NYSDEC Central Office, Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

5.4 CORRECTIVE MEASURE PLAN

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

Table 1
Summary of Detected Compounds (Soil Sampling, June- September, 2005)
101 Westmoreland Avenue, White Plains, NY
GCE Project No. 05-003-00

Parameter	Part 375-6 Soil Cleanup Objectives for the Protection of Groundwater (ug/kg)	Concentrations (ug/Kg)								
		B-1 S-1A 0-2'	B-2 S-6 25-27'	B-3 S-5 20-22'	B-4 S-6 25-27'	B-5 S-4 15-17'	B-5 S-5 20-22'	B-5 S-6 25-27'	B-6 S-5 20-22'	
VOC	Acetone	50	< 460	7	10	11	26	26	11	< 3.5
	Benzene	60	< 33	< 0.47	< 0.41	< 0.49	< 0.49	< 0.42	< 0.41	< 0.41
	2-Butanone	120	< 390	< 3.3	< 2.9	< 3.4	11	< 2.9	< 2.9	< 2.9
	2-Chlorotoluene	n/s	1,700	< 0.48	< 0.42	< 0.50	< 0.50	< 0.43	< 0.42	< 0.42
	cis-1,2-Dichloroethene (DCE)	250	7,800	< 0.38	< 0.33	< 0.40	< 0.40	< 0.34	< 0.34	< 0.33
	1,2-Dichloroethane (DCA)	20	600	< 0.36	< 0.31	< 0.38	< 0.38	< 0.32	< 0.32	< 0.32
	1,2-Dichlorobenzene	1,100	150,000	< 0.45	< 0.39	< 0.47	< 0.47	< 0.40	< 0.40	< 0.40
	1,4-Dichlorobenzene	1,800	3,900	< 0.64	< 0.56	< 0.67	< 0.67	< 0.57	< 0.56	< 0.56
	Ethylbenzene	1,000	1,400	< 0.41	< 0.36	< 0.43	< 0.43	< 0.37	< 0.37	< 0.36
	Isopropylbenzene	2,300	320	< 0.49	< 0.42	< 0.51	< 0.51	< 0.43	< 0.43	< 0.43
	Methylene chloride	50	2,300	5	< 1.9	< 2.2	< 2.2	2	< 1.9	< 1.9
	m/p-Xylenes	1,600	6,400	< 1.0	< 0.88	< 1.1	1,800	2	< 0.90	< 0.89
	n-Propylbenzene	3,900	1,200	< 0.63	< 0.55	< 0.65	< 0.65	< 0.56	< 0.56	< 0.55
	n-Butylbenzene	10,000	1,100	< 0.40	< 0.34	< 0.41	2,400	< 0.35	< 0.35	< 0.35
	o-Xylene	1,600	4,200	< 0.45	< 0.39	< 0.47	2,300	54	< 0.40	< 0.40
	p-Isopropyltoluene	10,000	1,400	< 0.50	< 0.43	< 0.52	8,200	190	< 0.44	< 0.44
	sec-Butylbenzene	11,000	660	< 0.49	< 0.43	< 0.51	2,800	< 0.44	< 0.43	< 0.43
	1,3,5-Trimethylbenzene	8,400	4,600	< 0.58	< 0.50	< 0.60	6,900	39	< 0.51	< 0.51
	1,2,4-Trimethylbenzene	3,600	14,000	< 0.44	< 0.39	< 0.46	16,000	< 0.40	< 0.39	< 0.39
	Trichloroethene (TCE)	470	1,900	< 0.36	< 0.31	< 0.38	2	< 0.32	< 0.32	< 0.32
	Tetrachloroethene (PCE)	1,300	180,000	3	< 0.74	< 0.89	1,000	11,000	< 0.76	< 0.75
	Tert butyl alcohol (TBA)	930	< 610	< 1.9	< 1.7	< 2.0	< 1.7	27	6	< 1.7
	Toluene	700	5,900	< 0.47	< 0.41	< 0.49	21	2	< 0.42	< 0.42
	Vinyl chloride (VC)	20	< 37	< 0.96	< 0.84	< 1.0	< 0.85	< 0.86	< 0.85	< 0.85
Naphthalene	12,000	6,100	< 0.68	< 0.60	< 0.71	26,000	17	< 0.61	< 0.60	
Total VOCs		395,480	14	10	11	67,460	11,359	17	0	
Total Chlorinated Solvents		348,200	8	0	0	1,002	11,002	0	0	
Total BTEX		17,900	0	0	0	4,121	58	0	0	

n/s	No standards
< 0.49	Compounds were analyzed, but were non-detected or detected below their detection limit.
11,000	Compounds were detected above Part 375-6 Recommended Soil Cleanup Objectives.

Table
Summary of Detected Compounds (Soil Sampling, 10/31/2007 and 3/27/2008)
101 Westmoreland Avenue, White Plains, NY
GCE Project No. 05-003-00

Parameter	Concentrations (ug/kg)																			
	B-1 2 S-1 0-2	B-12 S-2 2-4	B-12 S-7 25-27	B-13 S-1 0-2	B-13 S-7 25-27	B-14 S-1 0-2	B-14 S-7 25-27	B-15 S-1 0-2	B-15 S-7 25-27	B-16 S-1 0-2	B-16 S-7 25-27	B-17 S-1 0-2	B-17 S-7 25-27	Duplicate B-12 S-7 25-27	B-18 S-1 0-2	B-18 S-7 25-27	B-19 S-1 0-2	B-19 S-7 25-27	B-20 S-1 0-2	B-20 S-3 25-27
Part 375-6 Soil Cleanup Objectives for the Protection of Groundwater	250	<5.10	<5.10	63	<5.10	<5.10	<5.10	<10.86	<5.10	<11.36	<5.10	54	<5.10	<5.10	<20.83	<5.49	<21.50	<5.26	<5.15	<5.15
1,1,1-Trichloroethane (TCE)	190	<5.10	<5.10	10	<5.10	<5.10	<10.86	<5.10	<11.36	<5.10	<11.49	<11.49	<5.10	<5.10	<20.83	<5.49	<21.50	<5.26	<5.15	<5.15
1,2-Dichloroethane (DCE)	20	<5.10	<5.10	36	<5.10	<5.10	<10.86	<5.10	<11.36	<5.10	<11.49	<11.49	<5.10	<5.10	<20.83	<5.49	<21.50	<5.26	<5.15	<5.15
1,2-Dichloroethane (DCA)	1,100	6,000	8	430	10	<21.50	13	<5.10	31	<5.10	<11.49	<11.49	11	<20.83	<5.49	<21.50	<5.26	<5.15	<5.15	
1,2-Dichlorobenzene	2,400	200	11	<5.10	<5.10	<5.10	<10.86	<5.10	<11.36	<5.10	<11.49	<11.49	<5.10	<20.83	<5.49	<21.50	<5.26	<5.15	<5.15	
1,4-Dichlorobenzene	1,800	670	37	<5.10	14	<5.10	<10.86	<5.10	<11.36	<5.10	<11.49	<11.49	<5.10	<20.83	<5.49	<21.50	<5.26	<5.15	<5.15	
p-Isopropyltoluene	n/s	<10.75	<5.10	<5.43	<5.26	<21.50	<10.86	<5.10	<11.36	<5.10	<11.49	<11.49	<5.10	<20.83	<5.49	<21.50	<5.26	9.3	<5.15	
Methylene chloride	50	<10.75	<5.10	30	<5.26	<21.50	12	<5.10	<11.36	<5.10	<11.49	<11.49	<5.10	<20.83	<5.49	<21.50	<5.26	<5.15	<5.15	
m/p-Xylenes	1,600	<21.50	<10.20	13	<10.52	<43.01	<10.20	<21.73	<22.72	<10.20	<22.98	<10.20	<10.20	<41.66	<10.98	<43.01	<10.52	<10.30	<10.30	
Naphthalene	n/s	12	<5.10	22	<5.26	<21.50	<5.10	<10.86	<5.10	<11.36	<5.10	<11.49	<5.10	<20.83	<5.49	<21.50	<5.26	190	<5.15	
o-Xylene	1,600	<10.75	<5.10	11	<5.26	<21.50	<5.10	<10.86	<5.10	<11.36	<5.10	<11.49	<5.10	<20.83	<5.49	<21.50	<5.26	<5.15	<5.15	
1,1,1-Trichloroethane (TCA)	680	<10.75	<5.10	<5.43	<5.26	1,400	<5.10	<10.86	<5.10	<11.36	<5.10	<11.49	<5.10	96	<5.49	270	<5.26	<5.15	<5.15	
1,2,3-Trichlorobenzene	n/s	52	<5.10	<5.43	<5.26	<21.50	<10.86	<5.10	<11.36	<5.10	<11.49	<11.49	<5.10	<20.83	<5.49	<21.50	<5.26	<5.15	<5.15	
1,2,4-Trichlorobenzene	n/s	270	13	<5.10	12	<5.26	<21.50	<10.86	<5.10	<11.36	<5.10	<11.49	<5.10	<20.83	<5.49	<21.50	<5.26	<5.15	<5.15	
Trichloroethane (TCE)	470	17	<5.10	9	<5.26	<21.50	<10.86	<5.10	<11.36	<5.10	18	<5.10	<5.10	<20.83	<5.49	<21.50	<5.26	<5.15	<5.15	
1,2,4-Trimethylbenzene	3,600	<10.75	<5.10	41	<5.26	<21.50	<10.86	<5.10	18	<5.10	<11.49	<11.49	<5.10	<20.83	<5.49	<21.50	<5.26	8.2	<5.15	
1,2,4,5-Trimethylbenzene	n/s	<10.75	<5.10	100	<5.26	<21.50	<10.86	<5.10	43	<5.10	<11.49	<11.49	<5.10	<20.83	<5.49	<21.50	<5.26	160	<5.15	
1,3,5-Trimethylbenzene	8,400	<10.75	<5.10	25	<5.26	<21.50	<10.86	<5.10	15	<5.10	<11.49	<11.49	<5.10	<20.83	<5.49	<21.50	<5.26	11	<5.15	
Tetrachloroethane (PCE)	1,300	14,000	220	130	<5.26	3,800	<5.10	170	<5.10	300	7	480	<5.10	27	25	5.3	280	5.3	110	
Toluene	n/s	<5.10	<5.10	25	<5.26	<21.50	<5.10	<10.86	<5.10	<11.36	<5.10	<11.49	<5.10	<5.10	34	<5.49	61	<5.26	<5.15	
1,2-Dichlorobenzene	700	67,000	410	510	37	35	<30.61	2,000	<5.10	3,100	76	36	<30.61	<30.61	<31.25	<32.96	<31.57	<30.92	<30.92	
1,3-Dichlorobenzene	n/s	1,700	<153.06	<30.61	70	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	<30.61	<30.61	<31.25	<32.96	<32.25	<31.57	<30.92	
1,4-Dichlorobenzene	n/s	8,300	<153.06	110	210	<31.57	<32.25	<30.61	170	<5.10	<170.45	<30.61	<30.61	84	<31.25	<32.96	<32.25	<31.57	<30.92	
1,2,4-Trichlorobenzene	n/s	1,200	<153.06	<30.61	<32.60	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	<30.61	<30.61	<31.25	<32.96	<32.25	<31.57	<30.92	
2-Methylnaphthalene	n/s	5,200	<153.06	38	93	<31.57	49	<30.61	370	<30.61	500	<30.61	40	<30.61	35	<31.25	<32.96	260	<30.92	
Acenaphthylene	107,000	<161.29	<153.06	<30.61	<32.60	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	52	<30.61	<30.61	<31.25	<32.96	<31.57	<30.92	
Acenaphthylene	1,000,000	<161.29	<153.06	<30.61	<32.60	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	34	<30.61	<30.61	<31.25	<32.96	<31.57	<30.92	
Anthracene	1,000	170	<153.06	<30.61	130	<31.57	<32.25	<30.61	170	<30.61	<170.45	<30.61	290	<30.61	<30.61	<161.29	<31.57	<30.92	<30.92	
Benzo(a)anthracene	22,000	<161.29	<153.06	<30.61	120	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	280	<30.61	<30.61	<161.29	<31.57	<30.92	<30.92	
Benzo(b)fluoranthene	1,700	<161.29	<153.06	<30.61	170	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	340	<30.61	<30.61	<161.29	<31.57	<30.92	<30.92	
Benzo(k)fluoranthene	1,000,000	<161.29	<153.06	<30.61	46	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	110	<30.61	<30.61	<161.29	<31.57	<30.92	<30.92	
Benzo(e)pyrene	1,700	<161.29	<153.06	<30.61	160	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	300	<30.61	<30.61	<161.29	<31.57	<30.92	<30.92	
Benzo(g,h,i)perylene	n/s	3,400	<153.06	85	33	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	348	<31.25	<32.96	<32.25	<31.57	<30.92	<30.92	
Bis(2-ethylhexyl)phthalate	n/s	1,800	840	66	<32.60	<31.57	<32.25	<30.61	<163.04	160	<170.45	<30.61	348	67	<31.25	<32.96	<32.25	<31.57	<30.92	
Carbazole	n/s	<161.29	<153.06	<30.61	33	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	348	<30.61	<30.61	<32.25	<31.57	<30.92	<30.92	
Chrysene	1,000	260	<153.06	<30.61	180	<31.57	440	<30.61	260	<30.61	<170.45	<30.61	370	<30.61	<30.61	170	<31.57	<30.92	<30.92	
Dih-n-ButylPhthalate	n/s	270	<153.06	<30.61	<32.60	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	348	<30.61	<30.61	<32.25	<31.57	<30.92	<30.92	
Dibenz(a,h)anthracene	1,000,000	<161.29	<153.06	<30.61	<32.60	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	57	<30.61	<30.61	<161.29	<31.57	<30.92	<30.92	
Fluoranthene	1,000,000	170	<153.06	<30.61	250	<31.57	230	<30.61	280	<30.61	<170.45	<30.61	410	<30.61	<30.61	60	<31.57	33	<30.92	
Indeno(1,2,3-cd)pyrene	8,200	<161.29	<153.06	<30.61	49	<31.57	<32.25	<30.61	<163.04	<5.10	<170.45	<30.61	130	<30.61	<30.61	<161.29	<31.57	<30.92	<30.92	
Naphthalene	12,000	3,700	<153.06	31	120	<31.57	61	<30.61	370	<30.61	320	<30.61	44	<30.61	<31.25	<32.96	240	<31.57	<30.92	
Phenanthrene	1,000,000	660	<153.06	<30.61	220	<31.57	440	45	170	<30.61	180	<30.61	180	<30.61	<31.25	<32.96	160	<31.57	<30.92	
Pyrene	1,000,000	660	200	<30.61	260	<31.57	440	<30.61	730	<30.61	300	<30.61	390	<30.61	<31.25	<32.96	220	<31.57	<30.92	
Total BTEX	n/s	39	0	0	49	0	0	0	0	0	0	0	0	34	0	61	0	0	0	
Total Chlorinated Solvents	n/s	14,017	220	21	242	0	5,200	0	182	0	300	0	552	27	121	0	550	5.3	110	
Total VOC	n/s	21,260	294	34	971	10	5,200	0	195	0	407	7	552	38	155	0	611	5.3	488.5	
Total SVOC	n/s	94,490	1,450	840	7,544	37	1,495	0	4,530	205	4,390	76	3,033	277	991	0	1,110	0	903	
PID Readings (ppm)	n/s	42.0	6.5	7.6	21.1	4.0	1.2	1.3	0.2	4.5	1.8	1.3	0.8	7.6	0.9	7.4	0.9	4.6	18	
	n/s	No standards																		
	<30.92	Compounds were analyzed, but were non-detected or detected below their detection limit.																		
	14,000	Compounds were detected above the Part 375-6 Soil Cleanup Objectives for the Protection of Groundwater																		

Table
Summary of Detected Compounds (IRM Excavation, End Point Soil Sampling, 1/7/2009)
101 Westmoreland Avenue, White Plains, NY
GCE Project No. 05-003-00

Parameter	Part 375-6 Soil Cleanup Objectives for the Protection of Groundwater	Concentrations (ug/Kg)									
		S-1 north wall 4.0'	S-2 east wall 3.5'	S-3 north wall 3.1'	S-4 east wall 2.7'	S-5 south wall 2.8'	S-6 south wall 3.5'	S-7 west wall 4.0'	S-8 bottom 4.5'	S-9 bottom 3.5'	
VOC	cis-1,2-Dichloroethene (DCE)	250	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	5	< 5.15
	trans-1,2-Dichloroethene (DCE)	190	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
	1,2-Dichloroethane (DCA)	20	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
	1,2-Dichlorobenzene	1,100	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	28	< 5.15
	1,3-Dichlorobenzene	2,400	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
	1,4-Dichlorobenzene	1,800	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
	p-Isopropyltoluene	n/s	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
	Methylene chloride	50	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	8	< 5.15
	m/p-Xylenes	1,600	< 10.41	< 10.41	< 10.30	< 10.10	< 10.41	< 10.20	< 10.10	< 10.52	< 10.30
	Naphthalene	n/s	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
	o-Xylene	1,600	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
	1,1,1-Trichloroethane (TCA)	680	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
	1,2,3-Trichlorobenzene	n/s	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
	1,2,4-Trichlorobenzene	n/s	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
	Trichloroethene (TCE)	470	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
	1,2,4-Trimethylbenzene	3,600	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	12	< 5.15
	1,2,4,5-Trimethylbenzene	n/s	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	16	< 5.15
	1,3,5-Trimethylbenzene	8,400	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	7	< 5.15
	Tetrachloroethene (PCE)	1,300	9.4	9.4	< 5.15	< 5.05	< 5.20	< 5.10	10	100	< 5.15
	Toluene	700	< 5.20	< 5.20	< 5.15	< 5.05	< 5.20	< 5.10	< 5.05	< 5.26	< 5.15
SVOC	1,2-Dichlorobenzene	n/s	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	230	370
	1,3-Dichlorobenzene	n/s	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	< 31.57	< 30.92
	1,4-Dichlorobenzene	n/s	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	< 31.57	< 30.92
	1,2,4-Trichlorobenzene	n/s	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	< 31.57	< 30.92
	2-Methylnaphthalene	n/s	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	45	< 30.92
	Acenaphthylene	107,000	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	< 31.57	< 30.92
	Anthracene	1,000,000	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	< 31.57	< 30.92
	Benzo(a)anthracene	1,000	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	35	< 30.92
	Benzo(a)pyrene	22,000	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	< 31.57	< 30.92
	Benzo(b)fluoranthene	1,700	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	40	< 30.92
	Benzo(g,h,i)perylene	1,000,000	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	95	< 30.92
	Benzo(k)fluoranthene	1,700	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	35	< 30.92
	BenzylButylPhthalate	n/s	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	< 31.57	< 30.92
	Bis(2-ethylhexyl)phthalate	n/s	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	< 31.57	< 30.92
	Carbazole	n/s	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	< 31.57	< 30.92
	Chrysene	1,000	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	46	< 30.92
	Di-n-ButylPhthalate	n/s	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	< 31.57	< 30.92
	Dibenzo(a,h)anthracene	1,000,000	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	< 31.57	< 30.92
	Fluoranthene	1,000,000	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	65	38
	Indeno(1,2,3-cd)pyrene	8,200	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	35	< 30.92
	Naphthalene	12,000	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	44	< 30.92
	Phenanthrene	1,000,000	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	55	< 30.92
	Pyrene	1,000,000	< 31.25	< 31.25	< 30.92	< 30.30	< 31.25	< 30.61	< 30.30	68	57
	Total BTEX		0	0	0	0	0	0	0	0	0
	Total Chlorinated Solvents		9	9	0	0	0	0	10	114	0
	Total VOC		9	9	0	0	0	0	10	177	0
Total SVOC		0	0	0	0	0	0	0	793	465	
PID Readings (ppm)		1.5	0.5	0.0	0.0	0.0	0.0	1.0	5.1	1.0	
	n/s	No standards									
	< 31.25	Compounds were analyzed, but were non-detected or detected below their detection limit.									

Table 2
Summary of Detected Compounds (Groundwater Sampling)
101 Westmoreland Avenue, White Plains, NY
GCE Project No. 05-003-00

Parameter	New York Groundwater Quality Standards & Guidance values	Concentrations (ug/L)													
		MW-1 1/10/03	MW-1 WS-1 9/21/05	MW-1 WS-2 9/21/05	MW-2 WS-1 9/21/05	MW-3 WS-1 9/21/05	MW-3 WS-2 9/21/05	B-2 WS-1 06/8/05	B-3 WS-1 6/22/05	B-4 WS-1 6/22/05	B-5 WS-1 6/22/05	B-6 WS-1 9/21/05	B-7 WS-1 9/21/05	Trip Bl. T-1 9/21/05	Field Bl. F-1 9/21/05
Acetone	50	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	11	21	< 2.3	8.8	< 2.3	< 2.3
Benzene	1	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
2-Butanone	n/s	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	7.6	< 1.1	< 1.1	< 1.1	< 1.1
Carbon disulfide	n/s	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	1.8
Chloroform	7	< 0.33	0.97	1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	1.2	< 0.33	< 0.33	< 0.33	< 0.33
cis-1,2-Dichloroethene (DCE)	5	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	2.5	< 0.29	15	< 0.29	< 0.29
1,1-Dichloroethene	5	51	18	15	12	4.8	5.1	1.3	< 0.42	< 0.42	< 0.42	4.6	< 0.42	< 0.42	< 0.42
1,1-Dichloroethane	5	20	< 0.38	< 0.38	4.5	5.9	5.7	2	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
1,2-Dichloroethane	0.6	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	2.4	< 0.34	< 0.34
Ethylbenzene	5	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	2.1	< 0.45	< 0.45	< 0.45	< 0.45
Isopropylbenzene	5	< 0.44	< 0.44	< 0.44	< 0.44	1.7	2	< 0.44	< 0.44	< 0.44	0.9	< 0.44	< 0.44	< 0.44	< 0.44
Methylene Chloride	5	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	14	< 0.43	< 0.43
Methyl-Tert-Butyl-Ether (MTBE)	50	< 0.28	0.56	< 0.28	0.75	< 0.28	< 0.28	< 0.28	< 0.28	1.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
m/p-Xylenes	5	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	17	< 1.2	2.3	< 1.2	< 1.2
n-Propylbenzene	5	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	1	< 0.49	< 0.49	< 0.49	< 0.49
o-Xylene	5	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	20	< 0.46	1.1	< 0.46	< 0.46
p-Isopropyltoluene	5	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	5.0	< 0.49	< 0.49	< 0.49	< 0.49
sec-Butylbenzene	5	< 0.44	< 0.44	< 0.44	< 0.44	1.4	1.3	< 0.44	< 0.44	< 0.44	1.2	< 0.44	< 0.44	< 0.44	< 0.44
Tert-butyl alcohol	50	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	11.0	< 4.5	< 4.5	< 4.5	< 4.5
Tert-butylbenzene	n/s	< 0.39	< 0.39	< 0.39	< 0.39	0.51	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
1,3,5-Trimethylbenzene	5	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	10	< 0.42	2.2	< 0.42	< 0.42
1,2,4-Trimethylbenzene	5	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	26	< 0.44	2.6	< 0.44	< 0.44
1,1,1-Trichloroethane	5	270	130	140	170	50	50	< 0.32	21	< 0.32	< 0.32	49	< 0.32	< 0.32	< 0.32
Trichloroethene (TCE)	5	< 0.46	1.9	1.8	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	1.8	< 0.46	< 0.46
Tetrachloroethene (PCE)	5	3	2.4	2.3	8.8	16	17	2.0	1.4	1.4	21	3.4	21	< 0.48	< 0.48
Toluene	5	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	2	< 0.36	16	< 0.36	< 0.36
Vinyl chloride	2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	10	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	54	< 0.34	< 0.34	< 0.34	< 0.34
Total VOCs		344	154	160	196	80	81	5	22	14	204	57	87	0	2
Total Chlorinated Solvents		344	153	160	195	77	5	22	1	25	57	40	0	0	0
Total BTEX		0	0	0	0	2	0	0	0	42	0	19	0	0	0
pH			7.30		6.96	7.07									
T°C			14.95		14.90	14.69									
Conductivity (us/cm)			2,320		1,710	1,622									
Dissolved Oxygen (mg/L)			5.8		3.6	0.8									
ORP (mV)			220		231	216									
		n/s	No standards												
		< 0.42	Compounds were analyzed, but were non-detected or detected below their detection limit.												
		17	Compounds were detected above the New York Groundwater Quality Standards & Guidances values												

Table Summary of Detected Compounds (Soil and Groundwater Sampling, 2/24/2009) 101 Westmoreland Avenue, White Plains, NY GCE Project No. 05-003-00																	
Parameter	Part 375-6 Soil Cleanup Objectives for the Protection of Groundwater (mg/Kg)	Soil Concentrations (mg/kg)						Groundwater Concentrations (ug/L)				New York Ambient Water Quality Standards & Guidance Values (class GA) (ug/L)					
		B-21 S-6 23-25'	B-21 S-7 26-27'	B-22 S-1 0-2'	B-22 S-7 26-28'	B-23 S-1 1-3'	B-23 S-7 26-27'	B-24 S-1 1-3'	B-24 S-7 26-27'	Duplicate B-23 S-1 1-3'	B-21 WS-1		B-22 WS-1	B-23 WS-1	B-24 WS-1	Duplicate B-23 WS-1	Trip Blank
1,1-Dichloroethane	0.33	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	2	2	<1	1	<1	<1
1,1,1-Trichloroethane (TCA)	0.68	<0.01	<0.01	<0.005	<0.005	0.11	<0.005	0.02	<0.005	0.02	<0.005	5	14	9	15	9	<1
1,2,4-Trimethylbenzene	3.60	0.72	0.27	<0.01	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.01	5	23	<1	<1	<1	<1
1,2,4,5-Tetramethylbenzene	n/s	0.38	0.73	<0.01	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.01	n/s	7	<1	<1	<1	<1
1,3,5-Trimethylbenzene	8.40	0.66	0.30	<0.01	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.01	5	12	<1	<1	<1	<1
Isopropylbenzene	n/s	<0.01	<0.01	<0.01	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.01	5	3	<1	<1	<1	<1
m/p-Xylenes	1.60	0.05	<0.02	<0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	5	<2	<2	<2	<2	<2
n-Butylbenzene	12	0.10	0.06	<0.01	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.01	5	3	<1	<1	<1	<1
n-Propylbenzene	3.90	0.01	<0.01	<0.01	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.01	5	<1	<1	<1	<1	<1
Naphthalene (v)	n/s	1.30	1.10	<0.01	<0.005	<0.05	<0.005	<0.005	<0.005	0.04	n/s	68	<1	<1	<1	<1	<1
o-Xylene	1.60	0.10	0.03	<0.005	<0.005	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005	5	2	<1	<1	<1	<1
p-Ethyltoluene	n/s	0.29	0.11	<0.01	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.01	n/s	5	<1	<1	<1	<1
p-Isopropyltoluene	n/s	0.29	0.18	<0.01	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.01	5	4	<1	<1	<1	<1
sec-Butylbenzene	11	0.05	0.03	<0.01	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.01	5	4	<1	<1	<1	<1
Tetrachloroethene (PCE)	1.30	0.74	0.23	0.04	<0.005	0.14	<0.005	0.05	<0.005	0.03	<0.01	5	17	19	4	2	5
2-Methylnaphthalene	n/s	16.00	28.00	0.12	<0.03	0.20	<0.03	<0.16	<0.03	2.00	<0.01	n/s	170	<1	<1	<1	<1
Acenaphthene	98	1.40	2.30	0.09	<0.03	1.20	<0.03	<0.16	<0.03	13.00	<0.01	20	11	<1	<1	<1	<1
Acenaphthylene	107	<0.15	<0.15	<0.003	<0.03	<0.16	<0.03	0.63	<0.03	<0.03	<0.03	20	<10	<1	<1	<1	<1
Anthracene	1000	<0.15	<0.15	0.16	<0.03	1.30	<0.03	0.24	<0.03	13.00	<0.01	50	<10	<1	<1	<1	<1
Benzo(a)anthracene	1.00	<0.15	<0.15	0.20	<0.03	2.30	<0.03	3.70	<0.03	13.00	<0.01	0.002	<10	<1	<1	<1	<1
Benzo(a)pyrene	22	<0.15	<0.15	0.24	<0.03	1.80	<0.03	4.10	<0.03	17.00	<0.01	0.002	<10	<1	<1	<1	<1
Benzo(b)fluoranthene	1.70	<0.15	<0.15	0.28	<0.03	2.00	<0.03	4.10	<0.03	18.00	<0.01	0.002	<10	<1	<1	<1	<1
Benzo(g,h,i)perylene	1000	<0.15	<0.15	0.06	<0.03	0.44	<0.03	1.10	<0.03	3.90	<0.01	5	<10	<1	<1	<1	<1
Benzo(k)fluoranthene	1.70	<0.15	<0.15	0.31	<0.03	1.80	<0.03	4.20	<0.03	17.00	<0.01	0.002	<10	<1	<1	<1	<1
Bis(2-ethylhexyl)phthalate	n/s	<0.15	0.19	0.20	0.09	0.25	0.06	0.19	0.07	0.72	<0.01	5	<10	<1	<1	<1	<1
Carbazole	n/s	<0.15	<0.15	0.10	<0.03	0.60	<0.03	0.16	<0.03	6.80	<0.01	n/s	<10	<1	<1	<1	<1
Chrysene	1.00	<0.15	<0.15	0.32	<0.03	2.20	<0.03	3.50	<0.03	20.00	<0.01	0.002	<10	<1	<1	<1	<1
Dibenzo(a,h)anthracene	1000	<0.15	<0.15	<0.003	<0.03	0.28	<0.03	0.36	<0.03	2.00	<0.01	50	<10	<1	<1	<1	<1
Dibenzofuran	210	<0.15	<0.15	0.06	<0.03	0.38	<0.03	0.16	<0.03	6.80	<0.01	5	<10	<1	<1	<1	<1
Fluoranthene	1000	<0.15	<0.15	0.76	<0.03	4.60	<0.03	6.40	<0.03	60.00	<0.01	50	<10	<1	<1	<1	<1
Fluorene	386	1.10	<0.15	0.08	<0.03	0.63	<0.03	0.16	<0.03	6.80	<0.01	50	15	<1	<1	<1	<1
Indeno(1,2,3-cd)pyrene	8.20	<0.15	<0.15	0.06	<0.03	0.49	<0.03	1.20	<0.03	4.50	<0.01	0.002	<10	<1	<1	<1	<1
Naphthalene (sv)	12	2.60	4.40	0.08	<0.03	0.57	<0.03	0.16	<0.03	6.90	<0.01	10	64	<1	<1	<1	<1
Phenanthrene	1000	3.20	5.20	0.85	<0.03	4.40	<0.03	0.53	<0.03	55.00	<0.01	50	28	<1	<1	<1	<1
Pyrene	1000	<0.15	<0.15	0.86	<0.03	5.20	<0.03	8.00	<0.03	49.00	<0.01	50	<10	<1	<1	<1	<1
Total BTEX		0.15	0.03	0	0	0	0	0	0	0.01	<0.01	2	0	0	0	0	0
Total Chlorinated Solvents		0.74	0.23	0.04	0	0.25	0	0.06	0	0.10	<0.01	31	53	13	18	14	0
Total VOC		4.69	3.03	0.04	0	0.25	0	0.06	0	0.10	<0.01	164	55	13	18	14	0
Total SVOC		24.30	40.09	4.83	0.09	30.64	0.06	38.25	0.07	315.42	<0.01	288	0	0	0	0	0
PID Readings (ppm)		140.00	62.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<0.01						
	n/s	No standards															
	<0.15	Compounds were analyzed, but were non-detected or detected below their detection limit.															
	20,000	Compounds were detected above the Part 375-6 Soil Cleanup Objectives for the Protection of Groundwater and/or the New York Ambient Water Quality Standards & Guidance Values															

No standards
 Compounds were analyzed, but were non-detected or detected below their detection limit.
 Compounds were detected above the Part 375-6 Soil Cleanup Objectives for the Protection of Groundwater and/or the New York Ambient Water Quality Standards & Guidance Values

Table
Summary of Detected Compounds (Groundwater Sampling, 3/18/2009)
101 Westmoreland Avenue, White Plains, NY
GCE Project No. 05-003-00

Parameter	New York Groundwater Quality Standards & Guidance Values (µg/L)	Concentrations (ug/L)										
		MW-1 WS-1	MW-2 WS-1	MW-3 WS-1	MW-4 WS-1	MW-5 WS-1	MW-6 WS-1	MW-7 WS-1	MW-8 WS-1	MW-9 WS-1	Duplicate MW-2 WS-1	
VOCs	Benzene	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	Carbon Disulfide	50	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	Chloroform	7	2	< 1	< 1	< 1	1	< 1	3	2	< 1	< 1
	1,1-Dichloroethene	5	14	3	2	5	5	4	13	7	< 1	3
	1,1-Dichloroethane	5	3	1	3	< 1	1	3	6	2	< 1	1
	1,2-Dichloroethane	0.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	Ethylbenzene	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	p-Ethyltoluene	n/s	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	< 1
	Freon 113	5	< 1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2
	Isopropylbenzene	5	< 1	< 1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	Methylene Chloride	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	Methyl-Tert-Butyl-Ether (MTBE)	10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	m/p-Xylenes	5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	o-Xylene	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2	< 1
	p-Isopropyltoluene	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	sec-Butylbenzene	5	< 1	< 1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	Tert-Butyl Alcohol	50	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	Tert-Butylbenzene	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	1,3,5-Trimethylbenzene	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2	< 1
	1,2,4,5-Tetramethylbenzene	n/s	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	< 1
	1,2,4-Trimethylbenzene	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2	< 1
	1,1,1-Trichloroethane	5	120	53	21	43	35	22	230	91	9	54
	Trichloroethene (TCE)	5	2	< 1	1	1	< 1	2	2	< 1	< 1	< 1
Tetrachloroethene (PCE)	5	3	16	19	3	4	11	2	3	27	17	
Toluene	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Vinyl Chloride	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Naphthalene (volatile)	n/s	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	12	< 1	
SVOCs*	bis (2-ethylhexyl) phthalate (sv)	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
	2-Methylnaphthalene (sv)	n/s	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3.1	< 1	
	Naphthalene (sv)	10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	4.5	< 1	
Total BTEX			0	0	0	0	0	0	0	0	2.0	0
Total Chlorinated Solvents			144	73	46	52	46	42	256	105	36	75
Total VOCs			144	75	50	52	46	42	256	105	56	77
Total SVOCs			0	0	0	0	0	0	0	0	8	0
pH			6.5	6.6	6.5	7.0	6.9	6.7	6.8	6.8	6.7	6.6
T (°C)			61.1	62.3	62.2	61.0	61.4	61.6	61.7	61.3	61.4	62.3
Conductivity (uS/cm)			1,270	1,607	1,458	1,791	1,900	1,604	1,510	1,870	1,702	1,607
Dissolved Oxygen (mg/L)			2.2	1.0	0.0	2.1	0.3	0.4	2.4	1.8	0.5	1.0
ORP (mV)			-4	-24	-34	20	-9	-7	15	-10	-20	-24

n/s No standards

< 1 Compounds were analyzed, but were non-detected or detected below their detection limit.

17 Compounds were detected above the New York Groundwater Quality Standards & Guidances Values

Table 3
Summary of Detected Compounds (Soil Vapor Intrusion - Air Sampling, $\mu\text{g}/\text{m}^3$)
AAA, 101 Westmoreland Avenue, White Plains, NY, 2/27/2009
GCE Project No. 05-003-00

Sample ID	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-7(D)	SS-8	SS-9	IA-1	IA-2	OA-1
Analyte	$\mu\text{g}/\text{m}^3$												
1,1 Dichloroethane	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	33.22	< 0.39	33.22	< 0.39
1,1 Dichloroethene	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	83.37	< 0.39	83.37	< 0.39
1,1,1-Trichloroethane (TCA)	19.65	24.57	3330.00	2674.90	1201.00	1310.20	485.85	709.67	529.52	3821.30	2.89	< 0.54	< 0.54
1,2,4-Trimethylbenzene	0.84	1.67	73.79	2.12	1.13	1.08	88.54	118.06	< 2.45	59.03	21.15	59.03	< 2.45
1,3,5-Trimethylbenzene	0.54	0.49	22.14	0.79	0.49	0.49	41.81	47.71	< 2.45	17.71	5.90	17.71	< 2.45
2,2,4-Trimethylpentane	10.26	7.93	< 0.46	0.93	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	8.40	24.26	< 0.46
Acetone	76.10	95.12	18.07	18.79	12.60	8.56	380.48	28.54	68.96	99.88	187.86	546.94	8.32
Benzene	5.43	3.83	1.40	0.93	0.80	0.70	2.62	0.80	2.04	0.89	8.94	28.73	0.96
c-1,2-Dichloroethene	< 0.39	< 0.39	43.64	< 0.39	< 0.39	5.55	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
Chloroform	< 0.97	< 0.97	< 0.97	< 0.97	2.87	< 0.97	< 0.97	< 0.97	2.09	43.34	< 0.97	< 0.97	< 0.97
Dichlorodifluoromethane	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	15.83	27.71	< 0.98
Ethyl Alcohol	22.60	48.96	103.57	126.16	88.50	116.75	< 3.76	< 3.76	82.85	75.32	225.96	414.26	9.60
Ethyl Benzene	6.94	1.69	7.81	7.37	1.78	1.47	30.80	28.63	1.52	21.69	15.62	47.72	0.48
Freon-113	< 0.47	< 0.47	51.38	31.44	41.41	26.84	19.17	24.54	61.34	429.41	< 0.47	< 0.47	< 0.47
Heptane	7.77	7.37	2.05	1.10	1.64	0.86	15.96	2.62	< 2.04	1.68	14.73	40.51	< 2.04
Hexane	22.93	11.29	3.25	< 1.05	38.81	2.58	9.53	< 1.05	45.86	< 1.05	25.75	70.56	< 1.05
Isopropyl Alcohol	< 12.28	< 12.28	< 12.28	< 12.28	< 12.28	< 12.28	< 12.28	< 12.28	< 12.28	< 12.28	14.73	< 12.28	< 12.28
m/p-Xylene	21.73	6.52	33.90	23.90	6.52	5.65	130.38	134.73	5.22	99.96	56.50	160.80	1.56
Methyl Ethyl Ketone	< 2.948	16.79	< 2.948	< 2.948	< 2.948	< 2.948	170.87	< 2.948	< 2.948	< 2.948	50.08	147.30	< 2.948
Methylene Chloride	7.30	< 0.34	< 0.34	< 0.34	10.77	3.82	< 0.34	< 0.34	21.19	< 0.34	< 0.34	< 0.34	< 0.34
Methylisobutylketone	11.48	< 4.09	< 4.09	< 4.09	< 4.09	< 4.09	24.61	< 4.09	< 4.09	< 4.09	34.04	106.63	< 4.09
o-Xylene	6.08	2.09	16.95	6.08	1.91	1.69	56.50	60.84	1.43	39.55	19.12	56.50	0.56
p-Ethyltoluene	1.72	1.18	33.89	1.92	1.03	0.83	103.13	127.69	< 2.45	44.69	19.64	47.15	< 2.45
Styrene	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	5.11	11.92	< 0.42
Methyl Tert. Butyl Ether	< 0.36	< 0.36	< 0.36	< 0.36	6.69	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
Tetrachloroethene (PCE)	2103.40	1017.80	6785.00	1357.00	284.97	1017.80	1832.00	2171.20	332.47	3460.40	5563.70	13570.00	20.36
Toluene	207.08	109.19	64.01	36.90	52.71	30.87	1129.50	139.31	45.18	18.83	527.10	1506.00	6.40
Trichloroethene (TCE)	3.60	1.56	46.75	0.27	1.18	6.45	4.62	5.91	1.99	17.19	2.20	4.94	< 0.214
Total Chlorinated VOCs	2133.95	1043.93	10256.77	4063.61	1542.20	2370.66	2341.64	2911.32	948.60	7888.23	5584.62	13602.65	20.36
Total BTEX	247.26	123.32	124.07	75.18	63.72	40.38	1349.80	364.31	55.39	180.92	627.28	1799.75	9.96
Total VOCs	2535.45	1358.05	10637.60	4290.60	1756.81	2542.19	4526.37	3600.25	1201.66	8367.46	6825.25	17005.26	48.24

Table 1: New York State Department of Health (NYSDOH) Schedule, Criteria and Guidance Values

Soil Vapor/Indoor Air Matrix 1 October 2006

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)			
	< 0.25	0.25 to < 1	1 to < 5.0	5.0 and above
< 5	1. No further action	2. Take reasonable and practical actions to identify source(s) and reduce exposures	3. Take reasonable and practical actions to identify source(s) and reduce exposures	4. Take reasonable and practical actions to identify source(s) and reduce exposures
5 to < 50	5. No further action	6. MONITOR	7. MONITOR	8. MITIGATE
50 to < 250	9. MONITOR	10. MONITOR / MITIGATE	11. MITIGATE	12. MITIGATE
250 and above	13. MITIGATE	14. MITIGATE	15. MITIGATE	16. MITIGATE

Soil Vapor/Indoor Air Matrix 2 October 2006

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)			
	< 3	3 to < 30	30 to < 100	100 and above
< 100	1. No further action	2. Take reasonable and practical actions to identify source(s) and reduce exposures	3. Take reasonable and practical actions to identify source(s) and reduce exposures	4. Take reasonable and practical actions to identify source(s) and reduce exposures
100 to < 1,000	5. MONITOR	6. MONITOR / MITIGATE	7. MITIGATE	8. MITIGATE
1,000 and above	9. MITIGATE	10. MITIGATE	11. MITIGATE	12. MITIGATE

No further action:

Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures.

Take reasonable and practical actions to identify source(s) and reduce exposures:

The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

MONITOR:

Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is needed to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be needed to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MITIGATE:

Mitigation is needed to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system, and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MONITOR / MITIGATE:

Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building- and site-specific conditions.



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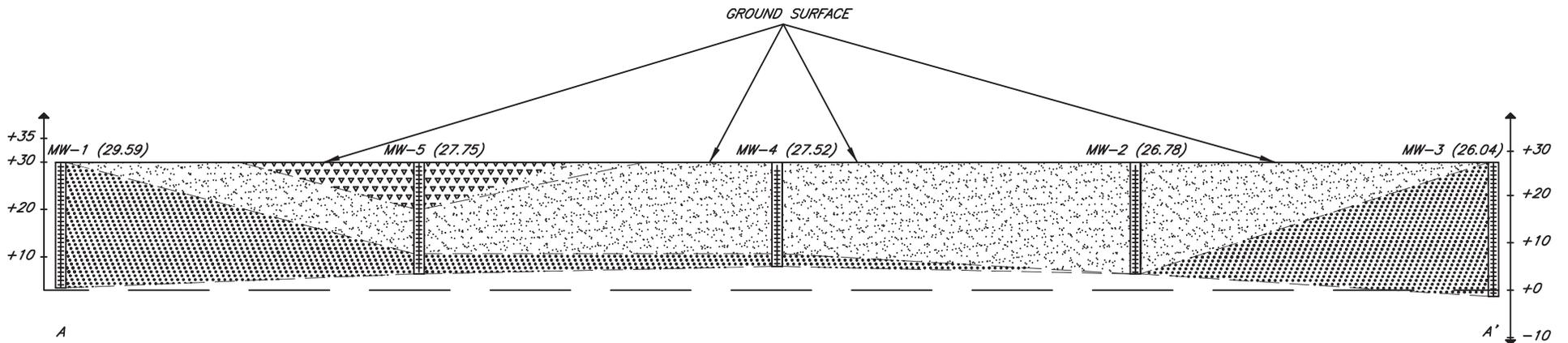
SITE MAP

101 WESTMORE LAND AVENUE
WHITE PLAINS
NY 10606

GCE PROJECT NO.: 05-003-00

FIGURE I

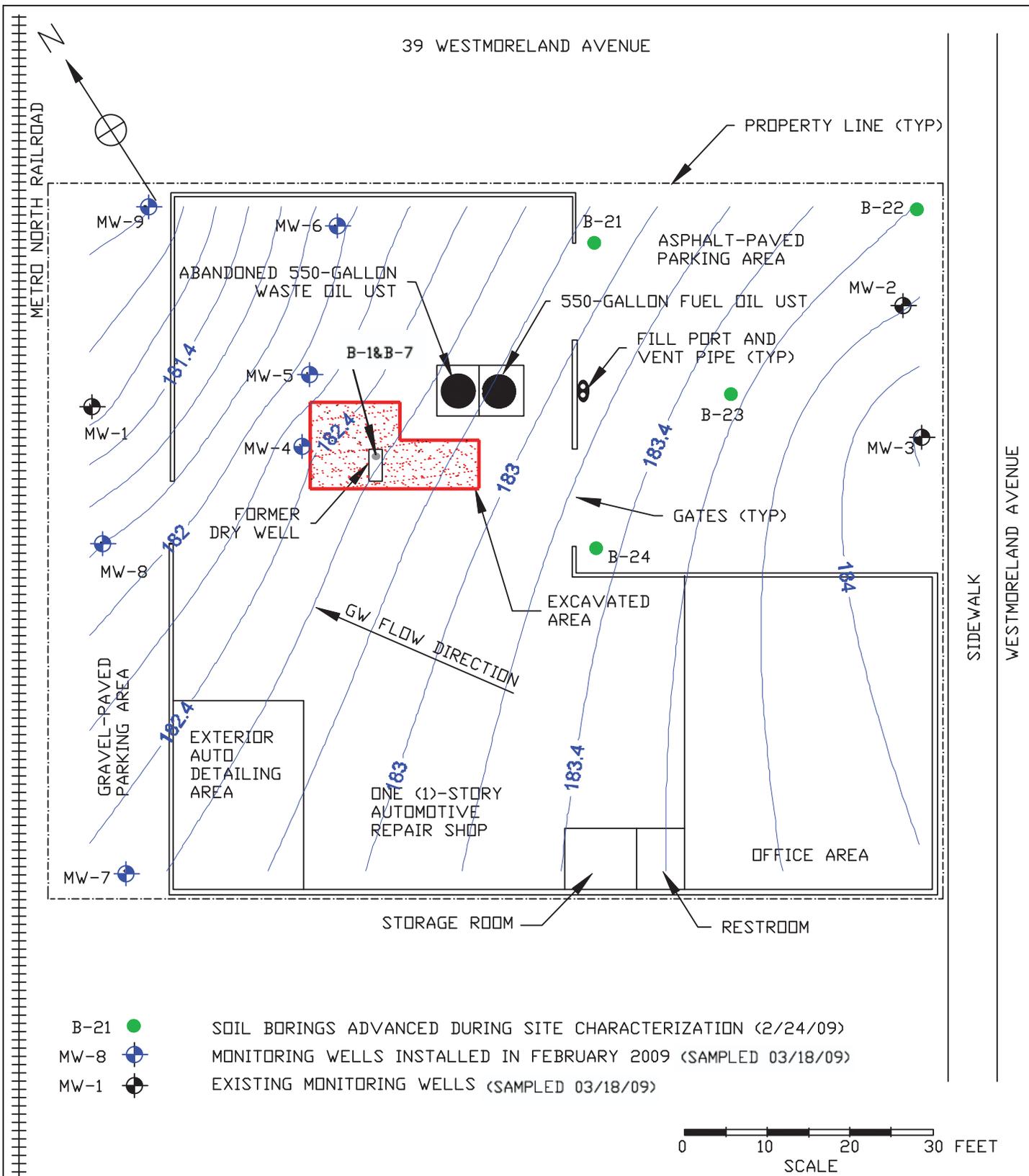
SITE MAP



Legend

-  *Fine Coarse Sand*
-  *Fine Medium Sand*
-  *Silty Sand*

AAA				
101 WESTMORELAND AVENUE WHITE PLAINS WESTCHESTER COUNTY NEW YORK				
Figure 2 Typical Geological Cross section Map				
DRAWN BY:	SCALE:	DATE:	DRAWING NO.	SHEET NO.:
RK	1" : 20'	03/24/15	-	2 OF 3



- B-21 ● SOIL BORINGS ADVANCED DURING SITE CHARACTERIZATION (2/24/09)
- MW-8 ● MONITORING WELLS INSTALLED IN FEBRUARY 2009 (SAMPLED 03/18/09)
- MW-1 ● EXISTING MONITORING WELLS (SAMPLED 03/18/09)



 <p>G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS</p> <p>410 SAW MILL RIVER ROAD ARDSLEY, NEW YORK 10502</p> <p>Tel: (914) 674-4346 Fax: (914) 674-4348</p>	<p>GROUNDWATER CONTOUR MAP</p> <p>101 WESTMORELAND AVENUE WHITE PLAINS, NEW YORK 10606</p> <p>GCE PROJECT NO: 05-003-00</p>	<p>DWG. TITLE:</p> <hr/> <p>FIGURE 3</p> <p>GROUNDWATER CONTOURS IN FEET ABOVE SEA LEVEL</p>

B-1, ug/kg	June-Sep, 2005
Cis-1,2- Dichloroethene (DCE)	7,800
1,2- Dichloroethane (DCA)	600
1,2- Dichlorobenzene	150,000
1,4- Dichlorobenzene	3,900
Ethylbenzene	1,400
Methylenechloride	2,300
Total Xylenes	10,600
1,2,4-TMB	14,000
Trichlorothene (TCE)	1,900
Tetrachlorothene (PCE)	180,000
Toluene	5,900
Naphthalene	6,100

B-5, ug/kg	June-Sep, 2005
Total Xylenes	4,100
1,2,4-TMB	16,000
Naphthalene	26,000
Trichlorothene (TCE)	11,000

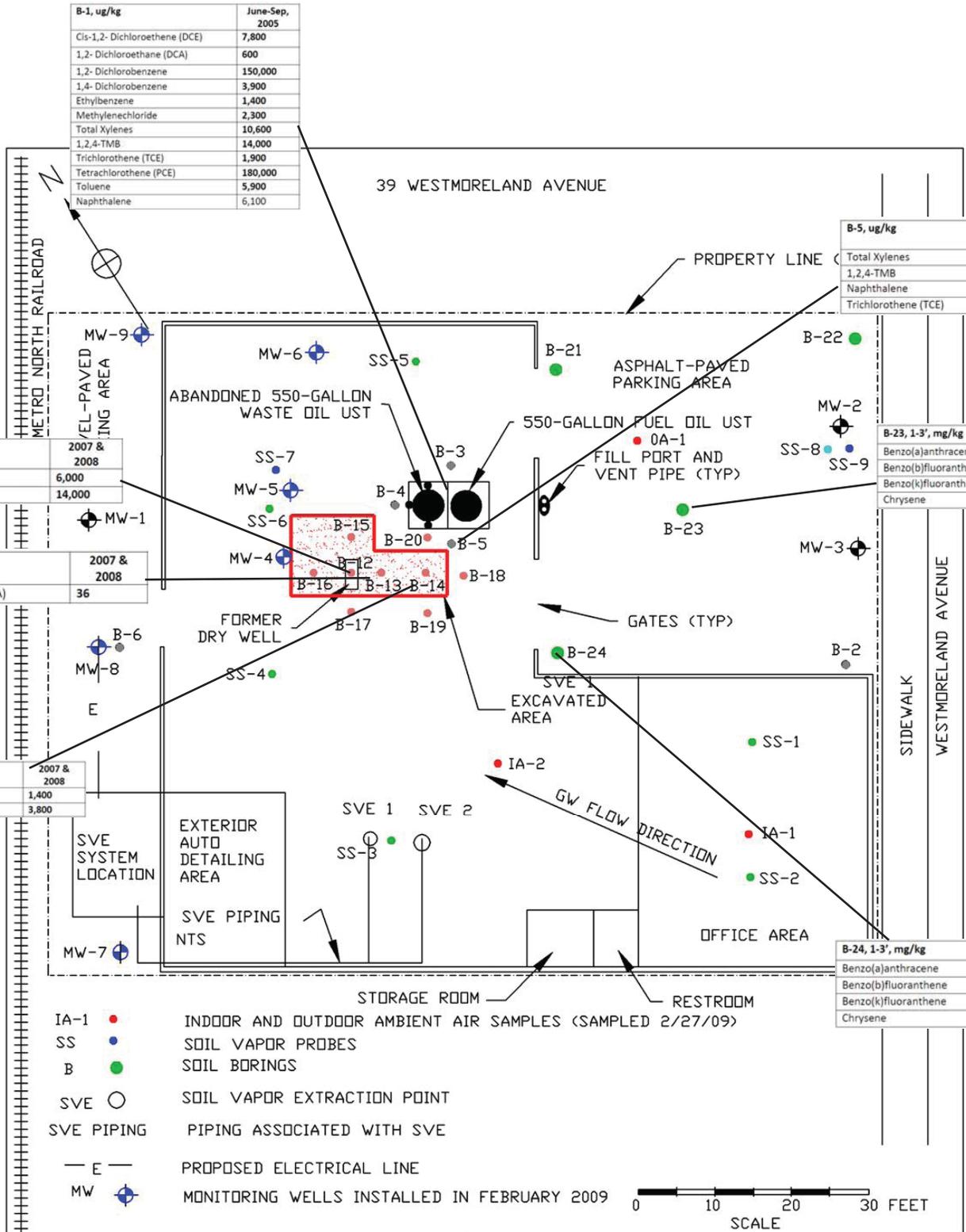
B-12, 0-2', ug/kg	2007 & 2008
1,2- Dichlorobenzene	6,000
Tetrachlorothene (PCE)	14,000

B-23, 1-3', mg/kg	Feb 2009
Benzo(a)anthracene	2.3
Benzo(b)fluoranthene	2
Benzo(k)fluoranthene	1.8
Chrysene	2.2

B-13, 0-2', ug/kg	2007 & 2008
1,2- Dichloroethane(DCA)	36

B-14, 0-2', ug/kg	2007 & 2008
1,1,1-Trichloroethane (TCA)	1,400
Tetrachlorothene (PCE)	3,800

B-24, 1-3', mg/kg	Feb 2009
Benzo(a)anthracene	3.7
Benzo(b)fluoranthene	4.1
Benzo(k)fluoranthene	4.2
Chrysene	3.5



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SOIL SUMMARY
 101 WESTMORELAND AVENUE
 WHITE PLAINS, NEW YORK 10606
 GCE PROJECT NO: 05-003-00

DWG. TITLE:
FIGURE 4
Soil Summary

MW-5, ug/l	March 2009
1,1-Dichloroethene	5
1,1,1-Trichloroethane	35

MW-9, ug/l	March 2009
1,1,1-Trichloroethane	9
Tetrachloroethene (PCE)	27

MW-6, ug/l	March 2009
1,1,1-Trichloroethane	22
Tetrachloroethene (PCE)	11

B-21, ug/l	Feb 2009
1,1,1-Trichloroethane	14
1,2,4-TMB	23
1,3,5-TMB	7
Tetrachloroethene (PCE)	17
Naphthalene	64

B-22, ug/l	Feb 2009
1,1,1-Trichloroethane	34
Tetrachloroethene (PCE)	19

MW-2, ug/l	March 2009
1,1,1-Trichloroethane	53
Tetrachloroethene (PCE)	16

B-23, ug/l	Feb 2009
1,1,1-Trichloroethane	9

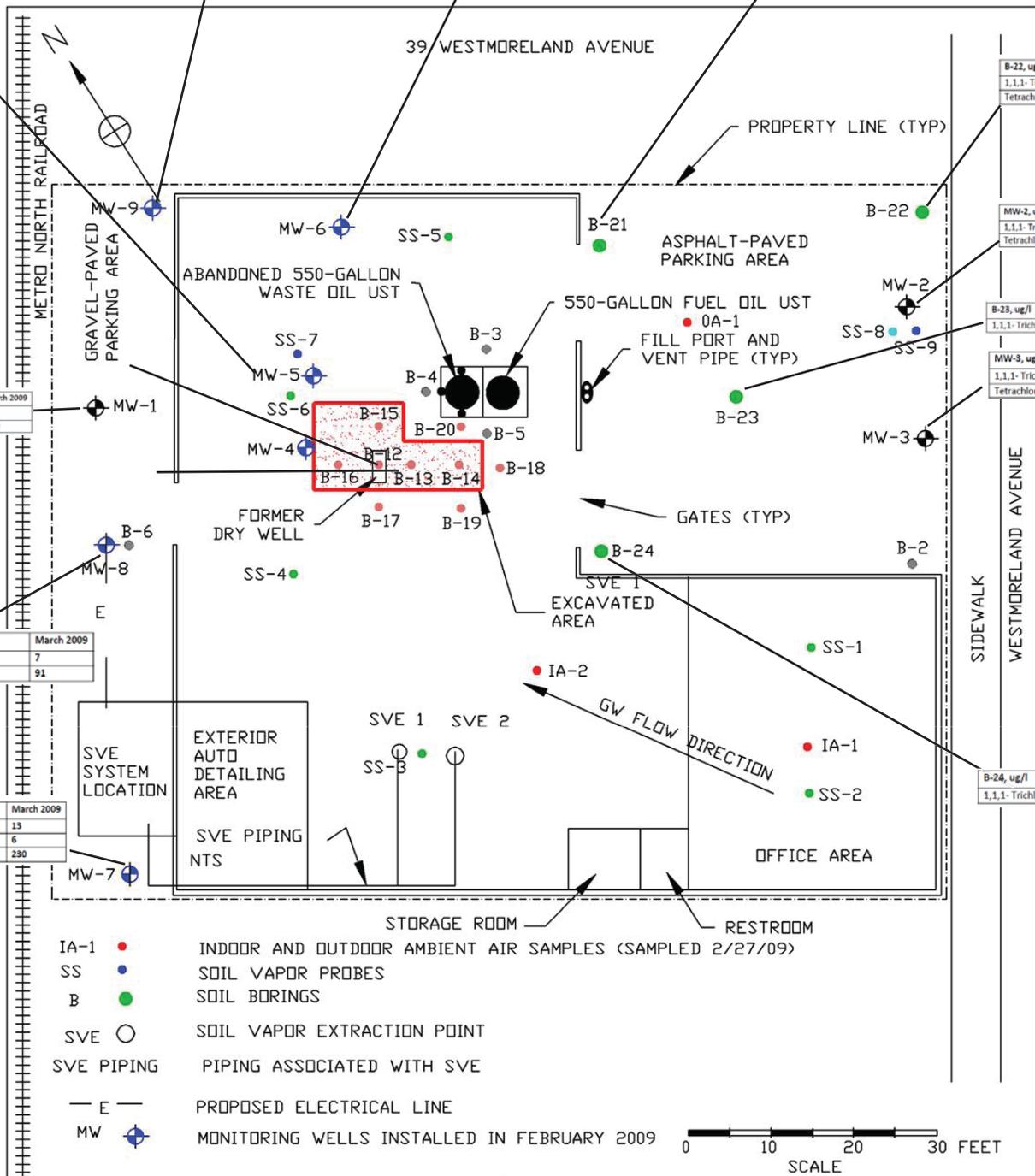
MW-3, ug/l	March 2009
1,1,1-Trichloroethane	21
Tetrachloroethene (PCE)	19

MW-1, ug/l	March 2009
1,1-Dichloroethene	14
1,1,1-Trichloroethane	120

MW-8, ug/l	March 2009
1,1-Dichloroethene	7
1,1,1-Trichloroethane	91

MW-7, ug/l	March 2009
1,1-Dichloroethene	13
1,1-Dichloroethane	6
1,1,1-Trichloroethane	230

B-24, ug/l	Feb 2009
1,1,1-Trichloroethane	15



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**GROUND WATER
SUMMARY**

101 WESTMORELAND AVENUE
WHITE PLAINS, NEW YORK 10606

GCE PROJECT NO: 05-003-00

DWG. TITLE:

FIGURE 5

**Groundwater
Summary**

Sample ID	SS-7
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	485.55
1,2,4-Trimethylbenzene	89.54
1,3,5-Trimethylbenzene	41.81
2,2,4-Trimethylpentane	< 0.48
Benzene	2.82
m/p-Xylene	130.38
o-Xylene	95.50
Tetrachloroethene (PCE)	1832.00
Toluene	1125.50
Trichloroethene (TCE)	4.62

Sample ID	SS-5
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	1201.00
1,2,4-Trimethylbenzene	1.19
1,3,5-Trimethylbenzene	0.48
2,2,4-Trimethylpentane	< 0.48
Benzene	0.80
m/p-Xylene	6.52
o-Xylene	1.91
Tetrachloroethene (PCE)	284.97
Toluene	52.71
Trichloroethene (TCE)	1.18

Sample ID	0A-1
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	< 0.64
1,2,4-Trimethylbenzene	< 2.45
1,3,5-Trimethylbenzene	< 2.45
2,2,4-Trimethylpentane	< 0.48
Benzene	0.95
m/p-Xylene	1.55
o-Xylene	0.55
Tetrachloroethene (PCE)	20.36
Toluene	6.40
Trichloroethene (TCE)	< 0.214

Sample ID	SS-8
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	1310.20
1,2,4-Trimethylbenzene	1.08
1,3,5-Trimethylbenzene	0.49
2,2,4-Trimethylpentane	< 0.48
Benzene	0.70
m/p-Xylene	5.55
o-Xylene	1.69
Tetrachloroethene (PCE)	1017.80
Toluene	30.87
Trichloroethene (TCE)	6.45

Sample ID	SS-4
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	2674.90
1,2,4-Trimethylbenzene	2.12
1,3,5-Trimethylbenzene	0.79
2,2,4-Trimethylpentane	0.93
Benzene	0.93
m/p-Xylene	23.90
o-Xylene	6.08
Tetrachloroethene (PCE)	1357.00
Toluene	39.90
Trichloroethene (TCE)	0.27

Sample ID	SS-3
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	3330.00
1,2,4-Trimethylbenzene	73.79
1,3,5-Trimethylbenzene	22.14
2,2,4-Trimethylpentane	< 0.48
Benzene	1.40
m/p-Xylene	33.90
o-Xylene	18.95
Tetrachloroethene (PCE)	6785.00
Toluene	64.01
Trichloroethene (TCE)	48.75

Sample ID	SS-6
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	528.52
1,2,4-Trimethylbenzene	< 2.45
1,3,5-Trimethylbenzene	< 2.45
2,2,4-Trimethylpentane	< 0.48
Benzene	2.04
m/p-Xylene	1.55
o-Xylene	1.43
Tetrachloroethene (PCE)	332.47
Toluene	45.18
Trichloroethene (TCE)	1.99

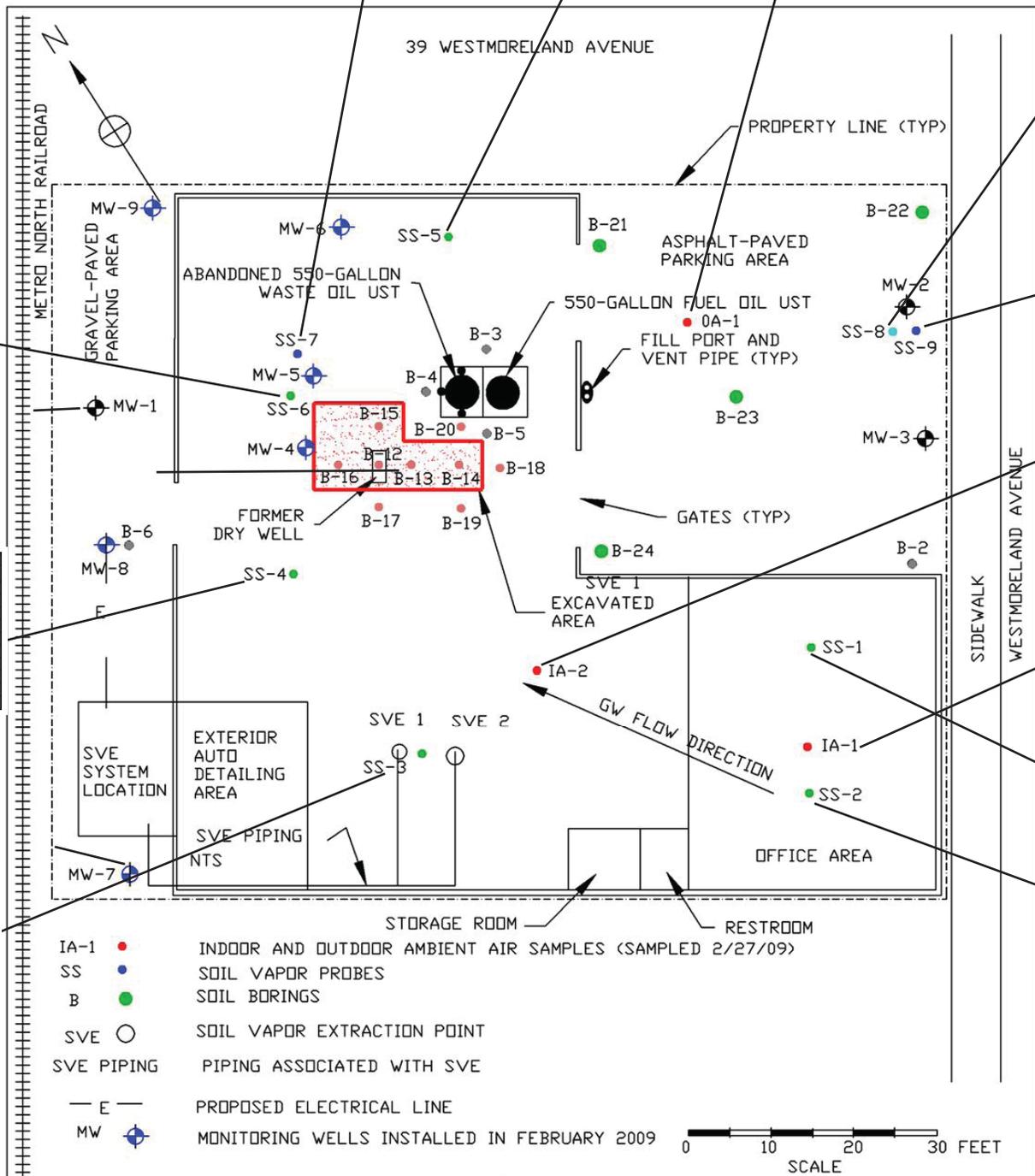
Sample ID	SS-9
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	3821.30
1,2,4-Trimethylbenzene	59.03
1,3,5-Trimethylbenzene	17.71
2,2,4-Trimethylpentane	< 0.48
Benzene	0.89
m/p-Xylene	98.96
o-Xylene	39.55
Tetrachloroethene (PCE)	3450.40
Toluene	18.83
Trichloroethene (TCE)	17.19

Sample ID	IA-2
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	< 0.54
1,2,4-Trimethylbenzene	59.03
1,3,5-Trimethylbenzene	17.71
2,2,4-Trimethylpentane	24.26
Benzene	28.73
m/p-Xylene	180.80
o-Xylene	59.50
Tetrachloroethene (PCE)	1357.00
Toluene	1506.00
Trichloroethene (TCE)	4.94

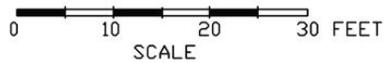
Sample ID	IA-1
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	2.89
1,2,4-Trimethylbenzene	21.15
1,3,5-Trimethylbenzene	5.90
2,2,4-Trimethylpentane	8.40
Benzene	5.94
m/p-Xylene	59.50
o-Xylene	18.12
Tetrachloroethene (PCE)	5593.70
Toluene	527.10
Trichloroethene (TCE)	2.20

Sample ID	SS-1
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	19.58
1,2,4-Trimethylbenzene	0.64
1,3,5-Trimethylbenzene	0.54
2,2,4-Trimethylpentane	10.26
Benzene	0.43
m/p-Xylene	21.73
o-Xylene	6.08
Tetrachloroethene (PCE)	2103.40
Toluene	207.98
Trichloroethene (TCE)	3.80

Sample ID	SS-2
Analyte	µg/m ³
1,1,1-Trichloroethane (TCA)	24.57
1,2,4-Trimethylbenzene	1.67
1,3,5-Trimethylbenzene	0.49
2,2,4-Trimethylpentane	7.93
Benzene	3.83
m/p-Xylene	6.52
o-Xylene	2.09
Tetrachloroethene (PCE)	1017.80
Toluene	106.19
Trichloroethene (TCE)	1.58



- IA-1 ● INDOOR AND OUTDOOR AMBIENT AIR SAMPLES (SAMPLED 2/27/09)
- SS ● SOIL VAPOR PROBES
- B ● SOIL BORINGS
- SVE ○ SOIL VAPOR EXTRACTION POINT
- SVE PIPING — PIPING ASSOCIATED WITH SVE
- E — PROPOSED ELECTRICAL LINE
- MW ● MONITORING WELLS INSTALLED IN FEBRUARY 2009



22 OAK STREET BAYSHORE
NEWYORK 11706

Tel: (631) 206-3700
Fax: (631) 206-3729

**SOIL VAPOR
SUMMARY**

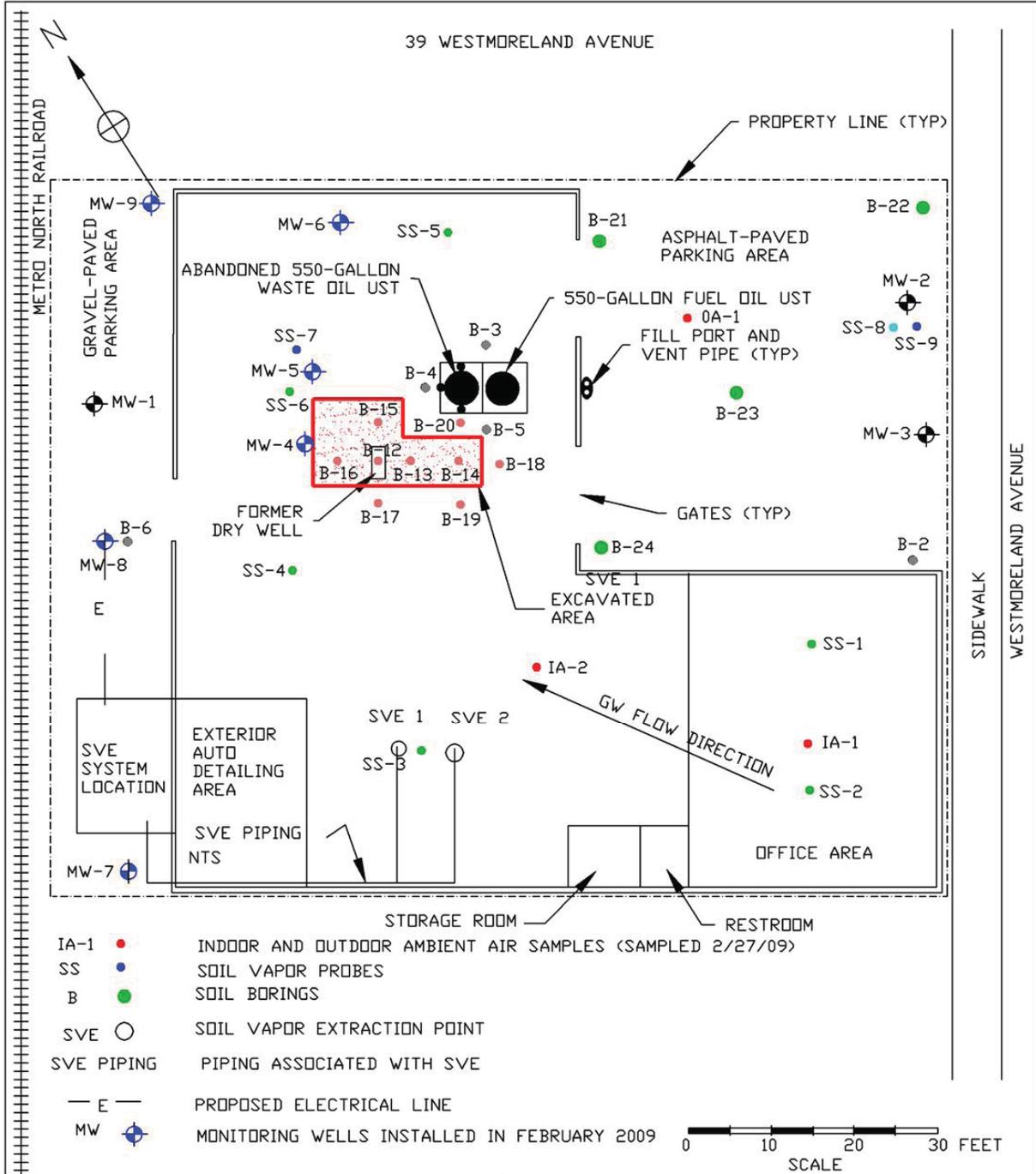
101 WESTMORELAND AVENUE
WHITE PLAINS, NEW YORK 10606

GCE PROJECT NO: 05-003-00

DWG. TITLE:

FIGURE 6

**Soil Vapor
Summary**



- IA-1 ● INDOOR AND OUTDOOR AMBIENT AIR SAMPLES (SAMPLED 2/27/09)
- SS ● SOIL VAPOR PROBES
- B ● SOIL BORINGS
- SVE ○ SOIL VAPOR EXTRACTION POINT
- SVE PIPING — PIPING ASSOCIATED WITH SVE
- E — PROPOSED ELECTRICAL LINE
- MW ● MONITORING WELLS INSTALLED IN FEBRUARY 2009



G. C. ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS

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Fax: (631) 206-3729

BASIC SVE
SITE PLAN

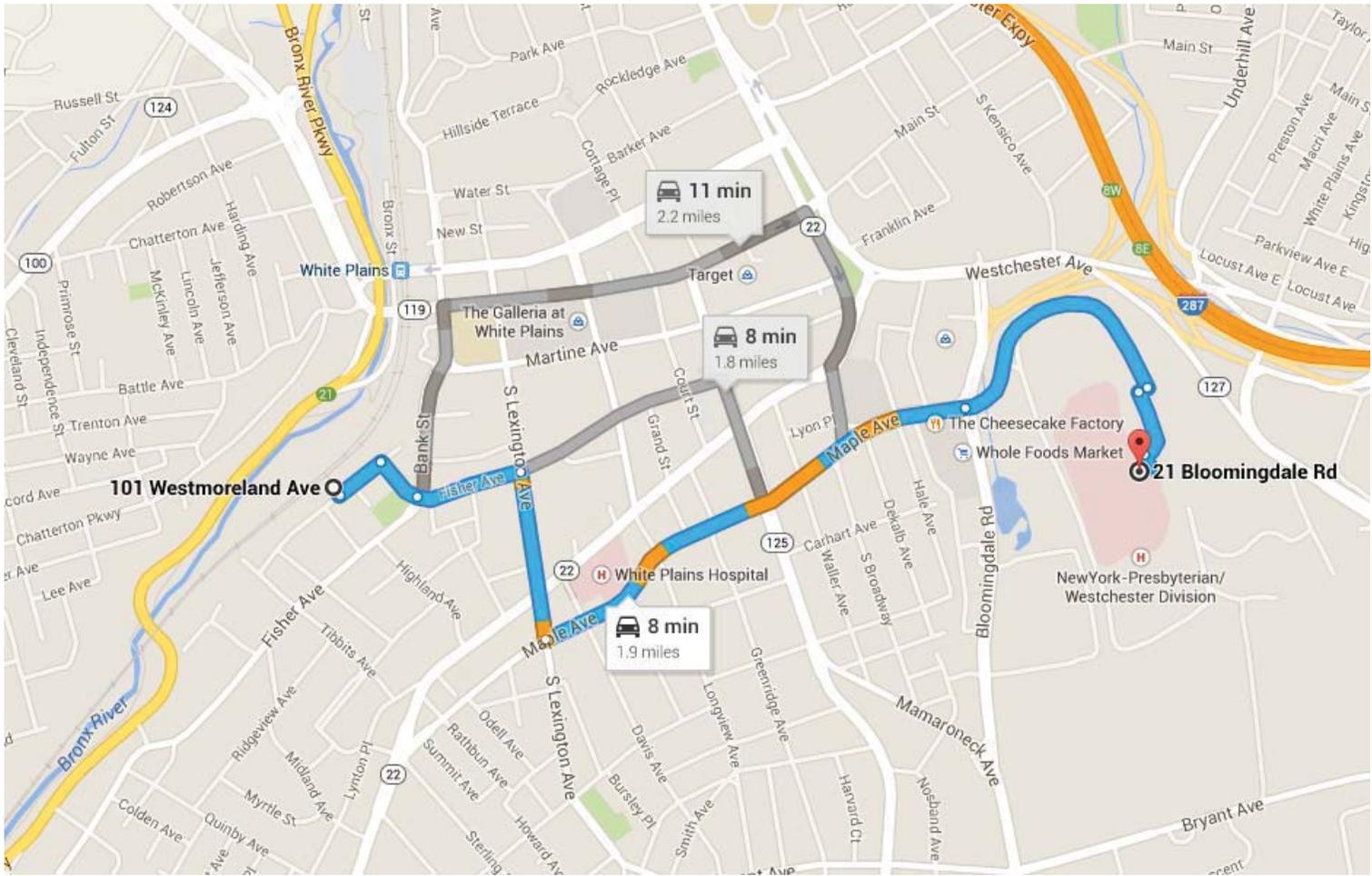
101 WESTMORELAND AVENUE
WHITE PLAINS, NEW YORK 10606

GCE PROJECT NO: 05-003-00

DWG. TITLE:

FIGURE 7

BASIC
SOIL VAPOR
EXTRACTION
SITE PLAN



G. G. ENVIRONMENTAL, INC.
CONSULTANTS CONTRACTORS

22 OAK STREET
BAY SHORE, NEW YORK 11706

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HOSPITAL ROUTE MAP

101 WESTMORE LAND AVENUE
WHITE PLAINS
NY 10606

GCE PROJECT NO.: 05-003-00

FIGURE 8
HOSPITAL ROUTE
MAP

APPENDIX A

APPENDIX A – EXCAVATION WORK PLAN

A-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the Department. Currently, this notification will be made to:

Jamie Verrigni
NYSDEC
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7014

Site Control Section
Bureau of Technical Support
NYSDEC Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7020

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control,
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work,
- A summary of the applicable components of this EWP,
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120,
- A copy of the contractor's health and safety plan, in electronic format, if it differs from the HASP provided in Appendix B of this document,
- Identification of disposal facilities for potential waste streams,
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

A-2 SOIL SCREENING METHODS

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

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

A-3 STOCKPILE METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC.

A-4 MATERIALS EXCAVATION AND LOAD OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

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

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

A truck wash will be operated on-site. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

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

A-5 MATERIALS TRANSPORT OFF-SITE

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

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

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

All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; (f) overall safety in transport; and (g) community input [where necessary] please refer to truck routes shown in Figure 8.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

A-6 MATERIALS DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this site is proposed for unregulated off-site disposal (i.e. clean soil removed

for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

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

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

A-7 MATERIALS REUSE ON-SITE

Chemical criteria for on-site reuse of material have been approved by NYSDEC for commercial soil cleanup criteria as listed in 375-6.8 (b) of NYCRR 375-6.8. Soil originating on the site may be reused on the site provided sampling demonstrates compliance with SCGs as detailed in Table 5.4(e)4 of DER-10. The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

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

A-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, but will be managed off-site.

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

A-9 COVER SYSTEM RESTORATION

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

A-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the Site. All materials proposed for import should also be approved by the NYSDEC prior to receipt at the Site.

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

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards which are provided in Appendix 5 of DER-10. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

Imported fill should be sampled and analyzed in accordance with 5.4(e)10 and Table 5.4(e) 10 of DER-10 Recommended number of Soil Samples for Soil Imported to or Exported from a site. The fill material should not exceed the allowable constituent levels for imported fill or soil for the use of the site which are provided in Appendix 5 of DER-10.

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

A-11 STORMWATER POLLUTION PREVENTION

For larger excavations, procedures for stormwater pollution prevention should be specified. For construction projects exceeding 1 acre, this is required. A summary of the Stormwater Pollution Prevention Plan that conforms to the requirements of NYSDEC Division of Water guidelines and NYS regulations should be included here. This plan may be included as an Appendix.

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

A-12 CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

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

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

A-13 COMMUNITY AIR MONITORING PLAN

Community Air Monitoring Plan (CAMP) requires real time monitoring for the presence of VOCs and dust at the downwind perimeter of designated work area when certain activities are in progress. The following CAMP will be implemented:

Total VOCs will be monitored at the downwind perimeter of the immediate work area continuously during excavation and drilling activities using a PID. The PID will be calibrated on a daily basis and will be capable of calculating 15-minute running average concentrations. Upwind concentrations of total VOCs will be measured at the start of each working day to establish background levels.

If total VOCs concentrations in the ambient at the downwind perimeter of the work area exceeds 5 ppm above background levels for 15-minute average, work activities will be temporarily stopped while air monitoring continue. When instantaneous readings show decrease of total VOCs below 5 ppm over background levels, work will resume with continued air monitoring.

If total VOCs concentrations in the ambient at the downwind perimeter of the work area persists at levels exceeding 5 ppm above background levels but less than 25 ppm, work activities will be stopped, source of vapors will be identified and corrective actions will be taken while air monitoring continue. After these steps, work activities will resume provided that the total VOCs levels at the half the distance downwind from the work area to the nearest commercial structure, but in no case less than 20 feet, is below 5 ppm above background levels for the 15-minute average.

If total VOCs concentrations in the ambient at the downwind perimeter of the work area exceeds 25 ppm above background levels, work activities will be shut down. Source of vapors will be identified and corrective actions will be taken while air monitoring continue. Work activities will resume only after instantaneous readings show decrease of total VOCs below 5 ppm over background for the period of 2 hours.

All 15-minute readings will be recorded and will be available for the review by the DEC and/or DOH personnel. Instantaneous readings, used for decision making purposes will be also recorded.

Periodic air monitoring for the presence of total VOCs will be conducted during non-intrusive field activities if applicable, such as collection pre-disposal soil samples if necessary.

Particulate concentrations will be continuously monitored at the upwind and downwind perimeters of the work area using Portable Real-Time Particulate Monitor equipped with an audible alarm to indicate exceedance of the action level. Such monitor will be capable of measuring particulate matters less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes or less for comparison to the airborne particulate action level. In addition, airborne dust migration will be visually observed during all work activities.

If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m³) greater than levels at the upwind measuring point for the 15-minute period or if airborne dust is observed escaping the work area, then dust suppression techniques, such as water spray will be activated. Work activities will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m³ above the upwind level and provided that no visible dust is escaping the work area.

If, after implementation of dust suppression techniques, downwind PM-10 particulate level are greater than 150 mcg/m³ above the upwind level, work will be stopped and new dust suppression techniques will be implemented. Work will be resumed provided that dust suppression measures are successful in reducing the downwind PM-10 particulate levels to within 150 mcg/m³ of the upwind and no dust migration is visible.

All readings will be recorded and will be available for the review by the DEC and/or DOH personnel.

If a sensitive receptor, such as a school, day care or residential area is adjacent to the site, a fixed monitoring station should be located at that site perimeter, regardless of wind direction, and discussed in the text.

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

A-14 ODOR CONTROL PLAN

An odor control plan will be implemented to control emissions of nuisance odors off-site. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

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

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

A-15 DUST CONTROL PLAN

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

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

A-16 OTHER NUISANCES

A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

APPENDIX B

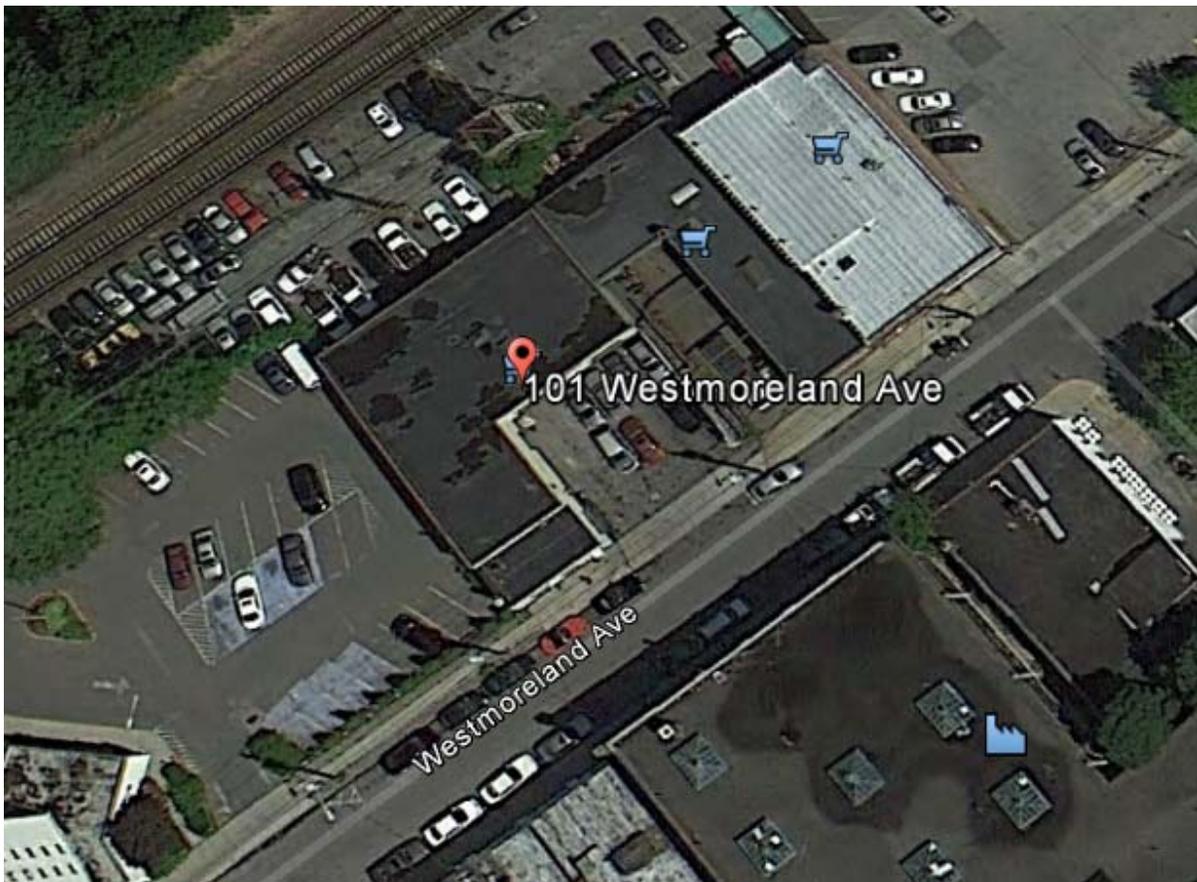


G. C. ENVIRONMENTAL, INC.

CONSULTANTS CONTRACTORS

**Health and Safety Plan
for Site Management Plan**

**101 Westmoreland Avenue
White Plains, Westchester, New York**



Prepared for:

Automobile Club of New York

1415 Kellum Place

Garden City, New York 11530

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APPENDICES:

- A. Chemical Descriptions
- B. G. C. Environmental, Inc. Forms

Daily Tailgate Safety Meeting Form

Site Safety Checklist

Air Monitoring Form

Fact Sheets

Incident Reporting Form

C. Hospital Route Map

1.0 INTRODUCTION

1.1 Purpose and Policy

This Health and Safety Plan (HASP) has been developed to comply with the regulations under Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120(b)(4), Hazardous Waste Operations and Emergency Response. It addresses foreseeable activities associated with the site work activities to be conducted at 101 Westmoreland Avenue in White Plains, Westchester County, New York (see Figure 1). This HASP establishes personnel protection standards and mandatory safety practices and procedures.

The following site specific HASP has been prepared for the soil vapor extraction (SVE) to be conducted at 101 Westmoreland Avenue in White Plains. The work activities include work by GCE employees, or contractors hired by, and working under the supervision of GCE. All personnel engaged in onsite activities will read this document carefully and complete the **Safety Briefing Form (Attachment A)**, a copy of which will be provided to GCE's Project files. Personnel who have any questions or concerns regarding implementation of this plan are encouraged to request clarification from the GCE Project Manager. Field personnel must follow the designated health and safety procedures, be alert to the hazards associated with working close to vehicles and equipment, and use common sense and exercise reasonable caution at all times.

The levels of protection and procedures specified in this HASP are based on the best information available from historical data and recent evaluations of the Site. Therefore, these recommendations represent the minimum health and safety requirements to be observed by all personnel engaged in work at the site. Unforeseeable site conditions, changes in scope of work, or hazardous conditions not previously considered will warrant a reassessment of the protection levels and controls stated. Refer to below sections for requirements pertaining to field modifications and changes to the HASP.

2.0 SITE ORGANIZATION AND COORDINATION

SVE installation activities will be performed by GCE Subcontractor/GCE. All work will be performed under the direction of the Site Supervisor/Project Manager and support staff.

The following section describes the organizational structure for GCE during the SVE installation activities. Key personnel and their responsibilities are listed below:

Personnel Name	Title/Responsibility	Contact Information
Mr. Gregory Collins	Site Safety and Health Officer	T: 631-206-3700 Email: gc@gcenvironmental.com
Mr. Ravi Kumar Kolaventi	Site Supervisor/Project Manager	T: 631-206-3700 Email: ravikolaventi@gcenvironmental.com
Mr. Fulya Toylular	Principal Investigator	T: 631-206-3700 Email: tftoylular@gcenvironmental.com

2.1 SITE SAFETY AND HEALTH OFFICER

The SSHO advises the Site Supervisor on safety and health issues and conducts briefings prior to initiation of site activities. The SSHO assesses the potential for worker exposures to hazardous

agents, recommends appropriate hazard controls for protection of task site personnel, and will require personnel to obtain immediate medical attention in the event of a work-related injury or illness. The SSHO ensures any necessary monitoring of potential chemical hazards is performed, reviews the effectiveness of monitoring and personal protective equipment, and recommends upgrades or downgrades in protective safety and health measures. The SSHO ensures that appropriate fall protection measures are available and that needed work permits are obtained. The SSHO notifies the Office of Radiation Protection when radiological support is required. The SSHO has stop work authority and advises emergency response personnel of an emergency. The SSHO authorizes the return to work following resolution of any safety and health hazards or other stop work issues. The SSHO ensures that this HASP is revised and approved if there are changes in site conditions or tasks. The SSHO will be available for consultation when required and will be aware of project-related work occurring on-site.

2.2 SITE SUPERVISOR

The Site Supervisor has primary responsibility for directing and managing all site investigation field activities, including coordination with any support organizations. The Site Supervisor ensures that all on-site project personnel meet the required level of training, have reviewed the HASP, and are instructed in safe work practices. The Site Supervisor also ensures that a qualified SSHO is designated, maintains a current copy of the HASP, and documents field changes to the HASP in the project logbook. In addition, the Site Supervisor and staff perform oversight of field activities, maintain awareness of site operations, and ensure that all project personnel adhere to ES&H requirements in order to prevent potential accidents from occurring.

The Site Supervisor is responsible for ensuring that the following five core functions of the Integrated Safety Management System (ISMS) are fulfilled appropriately:

- Define the work, roles and responsibilities. Allocate resources to ensure that research goals are balanced with safe work practices.
- Identify and analyze the hazards using the ESH&Q evaluation, consultation with subject matter experts, material safety data sheet information, Work Smart Standards (WSS), lessons learned by other Principal Investigators (PIs) and staff, and other resources.
- Develop and implement hazard controls tailored to the work being performed.
- Resources include contractor staff, subject matter experts, the Hazardous Materials Inventory System, project procedures, Training Needs Assessment process, Laboratory Operating Manuals, Laboratory Stewards, and Lessons Learned and Alerts.
- Examples of actions and tools include optimization of engineering controls and procedural approaches with training, HAZCOM job-specific training, job pre-briefings, compliance-based and project-specific training, ES&H permits (e.g.,RWPs, Lockout/Tagout process), and protective equipment.

Perform work within controls to ensure the work is done safely:

- Communicate expectations to project staff.
- Ensure that the controls identified in the ESH&Q evaluation and HASP are carried out.
- Ensure opportunity for procedure modification to respond to unanticipated situations.

- Stop work if imminent danger exists.

Provide feedback and continuous improvement:

- Solicit feedback from project staff regarding ESH&Q issues and act on that input.
- Communicate concerns to and seek help from supervisors and the ESH&Q group.
- Reallocate resources to address issues that arise.
- Ensure safety meetings and site briefings are performed.

2.3 PRINCIPAL INVESTIGATORS (PI) AND FIELD PROJECT PERSONNEL

PIs and field project personnel involved in onsite operations are responsible for understanding the intent of the principles of Integrated Safety Management and are to be knowledgeable of the processes in place to satisfy the intent of Integrated Safety Management Plan.

- Define the Scope of Work
- Understand the expectations they are to meet in their particular work assignment.
- Understand the responsibilities of the Site Supervisor and SSHO.
- Provide documentation of training to the Site Supervisor.
- Identify and Analyze the Hazard
- Notify the SSHO of any special medical conditions (i.e., allergies, diabetes, etc.).
- Actively participate in identification of hazards prior to beginning work.
- Ensure that potential work hazards have been evaluated by subject matter experts and are accounted for in all work practices.
- Develop and Implement Hazard Controls
- Seek the help of the SSHO and other subject matter experts, as appropriate, to analyze the hazards.
- Ensure that control strategies are developed and implemented, as appropriate, before work begins.
- Ensure safety measures are incorporated into activities (i.e., through HASP addendums or amendments, work aides, or standard operating procedures).
- Perform Work within Controls

- Perform only those tasks that they believe they can do safely.
- Meet the responsibilities and safely perform the tasks that are delegated to them.
- Take all reasonable precautions to prevent injury to themselves and to their fellow employees; be alert to potentially harmful situations.
- Suspend work if unexpected concerns arise and modify plans to address concerns before resuming work.
- Comply with the work plan and HASP as well as postings and rules at the project site.
- Provide Feedback and Continuous Improvement
- Keep the SSHO and Site Supervisor informed of any issues, problems, or concerns regarding all aspects of their work.
- Notify appropriate management personnel or the facility point of contact of any unsafe condition, violation, noncompliance, or an environmental threat discovered in a facility.
- Report to the SSHO any changes in site conditions that may affect safety and health.
- Immediately notify the SSHO of symptoms or signs of exposure potentially related to any chemical, physical, or biological hazards present at the site and immediately report any accidents, injuries, and/or unsafe conditions to the SSHO.
- If unsafe conditions develop, task site personnel are authorized and expected to stop work and notify the SSHO and Site Supervisor of the unsafe condition.

3.0 INTEGRATED SAFETY MANAGEMENT SYSTEM (ISMS)

The ISMS process systematically integrates safety into management and work practices at all levels so work objectives are accomplished while protecting the public, the worker, and the environment. Direct involvement of workers during the development and implementation of safety management systems is essential for success. Therefore, all personnel are expected to incorporate the following basic ISMS core functions during all work activities:

- Defining the scope of work;
- Identifying and analyzing hazards associated with the work;
- Developing and implementing hazard controls;
- Performing work activities within these controls; and
- Providing feedback on the adequacy of the controls to continue improving safety management.

4.0 TASK SPECIFIC HAZARD EVALUATION AND CONTROLS

The purpose of this task is hazard evaluation to identify and assess potential hazards that personnel might encounter and to prescribe methods of hazard control. Given the past uses at the Site (industrial), the potential environmental concerns associated with either possible fuel oil use and/or the historic land use of the surrounding area and according to the requirements of the NYSDEC, chemicals to be potentially encountered during investigation activities may be petroleum-related compounds, and typical generic contaminants in urbanized areas such as VOCs, SVOCs, and heavy metals.

A description of sampling procedures and the activities to be conducted at the Site during the required Phase II Site Investigation are described below.

4.1 FIELD SAMPLING AND ANALYSIS OF SOIL & GROUNDWATER

The remedial actions at the Site will the following field tasks:

- Installation of vapor extraction wells.
- Installation of a skid-mounted soil vapor extraction system.
- Operation and maintenance of the soil vapor extraction system.

The following sections describe the specific field activities that will be performed as part of the above tasks. Potential hazards, where possible, are described. Detailed descriptions of the hazards and control measures are provided in below sections. Most work activities will be performed in Level D PPE. Level C will also be worn if the need is indicated by air monitoring as described in below sections.

Vapor Extraction Well Installation

Several vapor extraction and vapor monitoring wells will be installed through the existing asphalt cap into the contaminated soils. Installation of these wells will require a drill rig and will result in the production of potentially contaminated drill cuttings. Workers will also potentially be exposed to vapors and contaminated dust while working on the drill rig. Cuttings will be stored in 55-gallon drums or roll-off bins for disposal.

SVE System Installation

Installation of the soil vapor extraction system is comprised of several sub-tasks. These include:

- Construction of a pipe network to convey the soil vapor to the treatment system. The pipes will be 2-inch diameter PVC. The pipes will be joined using solvent cement. The piping system will be installed in trenches below ground. In discussions with Oatey (PVC cement manufacturers), studies under worst-case conditions (e.g., plumbing installation in an unventilated crawl space). The installation of the SVE is outdoors. Installers will be equipped with chemical resistant gloves and eye protection. Installers will be instructed to stay upwind of the joint while being cemented to minimize potential exposure and to keep the adhesive container closed when not in use.

- The trenches will be backfilled and paved at the surface to match existing pavement.
- Delivery and set-up of the skid mounted extraction and treatment units.
- Connection of the system to the site electrical system.
- Installation of temporary fence around SVE treatment compound.

SVE System Operation and Maintenance

The soil vapor extraction system will be used to remove vapor phase contaminants from the soil beneath the site. The system includes a vacuum blower to extract the soil gas, a gas/liquid separator vessel (knock-out pot), and a granular activated carbon adsorption unit (which filters the contaminants from the air).

Operation and maintenance of the SVE system will expose workers to various potential physical and chemical hazards. These potential hazards include operating machinery, lubricating fluids, and electricity. Potential hazards also include contaminants vapors and spent carbon.

Weekly sampling of the influent and effluent vapors are required to monitor the performance of the SVE system. To minimize the potential for worker exposure, all sampling performance ports will be equipped with shut-off valves. Air sampling will be performed using a sampling pump with vacuum chamber and tedlar bags, or evacuated Summa canisters. The samples will be collected using Teflon tubing connected to the sample ports. The sampling equipment will be set up prior to opening the sampling port valve, ensuring that vapors are not released into the atmosphere.

Task Description: Soil samples will generally be obtained by a Geoprobe or manual means (groundwater if collected via a monitoring well).

Samples will be handled and transported according to regulatory requirements and procedures outlined in the Site Investigation Work Plan. Samples will be preserved and stored as required by the analytical protocols (e.g., cooled, preservative added). Storage on site may occur for short periods of time in ice chests containing “blue ice” but will be quickly transferred to refrigerator storage in the fixed base laboratory at the appropriate temperatures. All storage of contaminated samples will follow procedures and relevant regulations.

Equipment Used: Equipment used during investigation activities may include Drill rig, Geoprobe, augers, slam bars, shovels, etc.

Task Hazards and Controls:

Chemical and Radiological Hazards

- **Soil Contact:** The risk of chemical exposure from short-term exposure to soil or other environmental media samples is minimal. However, direct contact with contaminated materials should be avoided; therefore, disposable latex or nitrile gloves and safety glasses will be worn when conducting soil and sediment sampling to prevent eye and skin contact.

Suspect Substances

VOCs and metals have been identified as potential on-site contaminants which may be encountered during work activities. Exposure to many of these substances is regulated by the Occupational Safety and Health Administration (OSHA) at both the State and Federal levels. In addition, the National Institute for Occupational Safety and Health (NIOSH) and the American Conference of Governmental Industrial Hygienists (ACGIH) publishes recommended exposure levels (RELs and TLVs, respectively) and ceiling exposure limits. The OSHA PELs, RELs, TLVs, ceiling exposure limits and Immediately Dangerous to Life and Health (IDLH) concentrations (when available) for these substances in air.

Hazardous Characteristics of Petroleum Hydrocarbons/Non-Halogenated VOCs

Benzene

A colorless to light-yellow liquid with an aromatic odor. It reacts with strong oxidizers, fluorides and perchlorates. Exposure may cause irritation of the eyes, skin and nose. Symptoms of exposure include giddiness, headache, nausea, staggered gait, and fatigue. Benzene has been found to be a carcinogen (leukemia).

Toluene

A colorless liquid. Inhalation of 200 ppm for 8 hours may cause impaired coordination and reaction time. Higher acute exposures may cause narcosis and intoxication. Concentrations of 200-500 ppm induce headache, nausea, eye irritation, loss of appetite, loss of coordination and reduce reaction time. Symptoms usually cease following removal from exposure

Ethylbenzene

Colorless liquid with an acrid odor. Reacts with oxidizers, peroxides, high moisture and strong alkalis. Exposure may cause irritation of the eyes, skin and respiratory system. Has been shown to cause tumors of the fore-stomach in animals.

Xylenes

A colorless liquid. Vapors cause headaches and dizziness. Liquid irritates the skin and eyes. If taken into lungs, causes severe coughing, distress and rapidly developing pulmonary edema. If ingested, causes nausea, vomiting, cramps, headache and coma; can be fatal. Kidney and liver damage can occur.

Tetrachloroethylene (PCE)

A colorless, non-flammable liquid with an "ether" odor. High concentrations cause drowsiness, stupor, loss of consciousness and difficulty in breathing. Vapors may irritate the eyes, nose and throat. Skin contact may cause rash (contact dermatitis).

Trichloroethylene (TCE)

A colorless liquid with a chloroform like odor. Is chemically reactive with strong caustics and alkalis and chemically active metals such as barium, lithium, sodium, magnesium and beryllium. Ingestion may cause tremors, nausea and vomiting. The vapors irritate the

eyes and skin. Skin contact may cause rash. Additional symptoms of exposure may include vertigo, visual disturbance, fatigue and giddiness.

Physical Hazards

- Direct contact with equipment: Precautions will be made to keep a minimum of ten feet from the maximum reach of the drilling equipment during its operation. Furthermore, all on-ground personnel will wear hard hats, leather work gloves, construction boots and safety glasses as necessary.
- Tripping/Falling: Precautions should be taken to avoid trip, slip, and fall accidents when climbing irregular or slippery surfaces. Before changing location visually survey the area for slippery surfaces and tripping hazards.
- Heat/Cold Stress: Wear clothing appropriate for environmental and weather conditions. Temperature extremes may be a hazard for consideration depending on the timing of the activity. Refer to below sections for discussion of recognition of symptoms and controls.

Biological/Vector Hazards

- Ticks/Snakes/Rodent/Pathogens: Be cautious of snakes, and vector carriers such as ticks. Check clothing and skin for ticks after walking in brush. Wash hands before eating and drinking.

Personal Protective Equipment Required to Address General Site Hazards

- Level of Protection: D
- Protective Clothing: Issued work clothes or disposable tyvek
- Head Gear: Safety glasses
- Gloves: Latex or nitrile (when conducting groundwater sampling or handling corrosive or oxidizing reagents)
- Footwear: Sturdy work shoes

5.0 OTHER HEALTH AND SAFETY PLAN ELEMENTS

5.1 REVISIONS/ MODIFICATIONS TO THE HASP

The following actions will warrant revision and approval of this plan by the appropriate health and safety disciplines:

- Change in tasks (or previously unidentified tasks) that could impact employee health and safety.
- Changes in hazards (unknown or not previously addressed) which require a significant change in, or addition to, respiratory protection (as defined in exemptions to the plan modifications), physical/barrier protection features, or other engineering controls.

5.1.1 Modifications allowed

The SSHO may upgrade PPE. These changes must be documented in the field logbook. The change and reason or evidence for the change must also be documented in the field logbook. For upgrades to include respiratory protection (including air-purifying and supplied air) for previously unidentified non-radiological issues or contaminants such as VOCs, the appropriate health and safety disciplines must be contacted. The SSHO will approve and document changes in PPE in the field logbook. Upgrades to include respiratory protection will require the SSHO to ensure workers have 40 Hour HAZWOPER Training and to assess any additional medical surveillance requirements.

5.2 MONITORING

Historical site data indicate that chemical exposure of site personnel will not be a significant concern within the scope of this project. However as only limited site information is available, monitoring may be required for all field activities. Site monitoring requirements may change based on site conditions. All changes must be documented in the site logbook.

5.3 SITE AND SPILL CONTROL

Site access will be controlled by the developer. An exclusion zone may be required for drilling operations and other field activities if required to reduce the accidental distribution of hazardous substances from contaminated areas to clean areas. The SSHO will determine, as needed, the locations of the support zone, contamination reduction zone, and the exclusion zone. Personnel accessing the zones must meet access requirements as stated in this plan.

5.4 PERSONAL PROTECTIVE EQUIPMENT

Level D protection is normally used when the potential for personnel contamination is low, as is the case with this project. Level D protection will include work clothing or disposable tyvek overalls. Details and special requirements have been covered in the hazard control sections of the specific tasks in above sections. Unexpected new hazards will require a reassessment of the specified PPE.

5.5 TEMPERATURE EXTREMES AND SITE CHARACTERISTICS

The effect of temperature extremes on personnel is a primary hazard associated with the activities conducted at the site. Symptoms and controls related to temperature extremes are considered in detail in this section.

Field activities conducted during the summer or winter pose a hazard because of temperature extremes. Since the project site is located in a relatively open area, workers will dress appropriately for environmental conditions, wearing clothing that provides reasonable protection against winter cold and summer sun. Although extreme physical exertion will not be likely within the scope of this project, during hot weather workers are encouraged to be aware of their own symptoms of heat stress (headaches, dizziness, increased heart rate), to drink plenty of water, and to take breaks as needed. Heat stress symptoms, remedies, and monitoring are discussed in below sections. Cold exposure effects are discussed in below sections.

Workers are also encouraged to apply insect repellent and/or sunscreen as needed prior to field activities. Workers should exercise caution by visually inspecting their immediate area of activity for presence of poisonous/harmful plant, insect, and animal species as well as any hazard resulting from previous human activity.

5.5.1 Effects and Prevention of Heat Stress

If the body's physiological processes fail to maintain a normal body temperature because of excessive heat, a number of physical reactions can occur. They can range from mild symptoms such as fatigue, irritability, anxiety, and decreased concentration, dexterity, or movement, to death.

Heat-related health concerns can include the following:

Heat rash: Caused by continuous exposure to heat and humid air and aggravated by chafing clothes. Decreases ability to tolerate heat and is a nuisance.

Heat cramps: Caused by profuse perspiration combined with inadequate fluid intake and chemical replacement, particularly salts. Signs include muscle spasm and pain in the extremities and abdomen.

Heat exhaustion: Caused by increased stress on various organs to meet increased demands to cool the body. Signs include shortness of breath; increased pulse rate (120-200 beats per minute); pale, cool, moist skin; profuse sweating; dizziness; and lassitude.

Heat stroke: Is the most severe form of heat stress. Body must be cooled immediately to prevent severe injury and/or death. Signs include red, hot, dry skin; no perspiration; nausea; dizziness and confusion; strong, rapid pulse; and possibly coma. Medical help must be obtained immediately.

Medical attention must be obtained for the more serious symptoms of heat stress. One or more of the following methods are recommended to help reduce the potential for heat stress:

- Provide plenty of liquids. To replace body fluids (water and electrolytes) lost due to sweating, use a 0.1 percent saltwater solution, more heavily salted foods, or commercial mixes. The commercial mixes may be preferable for those employees on a low-sodium diet.
- Provide cooling devices to aid natural body ventilation. These devices, however, add weight, and their use should be balanced against worker efficiency.
- Wear long cotton underwear, which acts as a wick to help absorb moisture and protect the skin from direct contact with heat-absorbing protective clothing.
- Install mobile showers and/or hose-down facilities to reduce body temperature and cool protective clothing.

- In extremely hot weather, conduct non-emergency response operations in the early morning or evening.
- Ensure that adequate shelter is available to protect personnel against sun, heat, or other adverse weather conditions that decrease physical efficiency and increase the probability of accidents.
- In hot weather, rotate workers wearing protective clothing.
- Maintain good hygiene frequently changing clothing and showering daily. Clothing should be permitted to dry during rest periods. Workers who notice skin problems should immediately consult medical personnel.

5.5.2 Cold Exposure

Persons working outdoors in temperatures at or below freezing may suffer from cold exposure. During prolonged outdoor periods with inadequate clothing for protection, the effects of cold exposure may occur even at temperatures well above freezing. Cold exposure may cause severe injury due to freezing of exposed body surfaces (frostbite), or profound generalized cooling (hypothermia), possibly resulting in death. Areas of the body which have high surface area-to-volume ratios such as fingers, toes, and ears are the most susceptible to frostbite.

Local injury resulting from cold is included in the generic term frostbite. There are several degrees of damage. Frostbite of the extremities can be categorized into:

Frost nip or incident frostbite: characterized by sudden blanching or whitening of skin.

Superficial frostbite: skin has a waxy or white appearance and is firm to the touch, but tissue beneath is resilient.

Deep frostbite: tissues are cold, pale, and solid; extremely serious injury.

Systemic hypothermia, or lowering of the core body temperature, is caused by exposure to freezing or rapidly dropping temperatures. Symptoms are usually exhibited in five stages: 1) shivering and loss of coordination; 2) apathy, listlessness, sleepiness, and (sometimes) rapid cooling of the body to less than 95°F (35°C); 3) unconsciousness, glassy stare, slow pulse, and slow respiratory rate; 4) freezing the extremities; and 5) death.

5.6 DECONTAMINATION

Contactors and its subcontractors will maintain on-site decontamination equipment such as potable water,alconox and water reservoir tank. Groundwater, soil and soil vapor sampling, and drilling equipment will be decontaminated between each boring, well installation, sampling event, and prior to mobilization on or off site.

Decontamination of personnel will be conducted only in the unexpected event that contamination is detected. At a minimum, personnel who have conducted work at the site will wash their hands

prior to eating or drinking. Contractors personnel will supervise, assist, and document incidents involving personnel contamination

5.7 EMERGENCY PREPAREDNESS/RESPONSE

The first worker who notices that a medical emergency or personal injury has occurred will immediately make a subjective decision as to whether the emergency is life threatening and/or otherwise serious.

Life-Threatening and/or Otherwise Serious Incident

If a life-threatening incident occurs, those persons recognizing the situation should do whatever actions in their capabilities to reduce the threat and then the SSHO will be contacted. The SSHO will immediately notify the Emergency Medical Services (EMS) and implement emergency action procedures to have someone meet and guide EMS to the incident location.

The SSHO will be kept apprised of the situation and the location of the victim(s). As the SSHO proceeds to the accident scene, communications channels will be opened and kept on standby until the SSHO has surveyed the scene and performed a primary survey of the victim. The SSHO will provide emergency action guidance consistent with the injury and will relay the appropriate information to the site person meeting the EMS.

Depending on the nature of the injury and the location at which the injury occurred, the SSHO will determine whether the person can be moved or whether the EMS team will need to come into the work area to assist the victim. Should the victim be injured in the work zone, all appropriate life-saving methods will be exercised in that area before attempting decontamination (if required) of the victim. The extent of emergency decontamination performed will depend on the severity of the injury or illness and the nature of the contamination. If the emergency is such that emergency decontamination cannot be performed safely, the victim will be given necessary first-aid treatment and wrapped in a blanket prior to transportation by EMS.

If heat stress is a factor in a victim's injury/illness, all protective clothing will be removed from the victim immediately.

Non-Life-Threatening Incident

Should it be determined that no threat to life is present, a co-worker will assist the injured person and contact the SSHO as soon as reasonably possible. The SSHO will notify the Contractor of the incident. For all non-life threatening injuries, all medical assistance will be provided outside the work zone to reduce the spread of contamination to medical personnel or equipment.

All emergency services can be reached by dialing 911 from any facility or mobile telephone. Access to phones and/or radios will be provided to onsite personnel. The Emergency Response Coordinator (ERC) will coordinate all emergency response operations.

If an injury occurs at the site, the route to the hospital is shown in Figure 2. Emergency telephone numbers are given below.

EMERGENCY CONTACTS

Ambulance:	911
Police:	911
Fire Department:	911
Hospital:	911
G.C.Environmental, Inc, 22 Oak Street, Bay Shore, New York	(631) 206-3700
Nearby Hospital:	(718) 932-1000
Hospital/Westchester Division,	
21 Bloomingdale Road	
White Plains, New York 10605.	

A hospital route map is presented in Appendix C.

6.0 TRAINING/MEDICAL REQUIREMENTS

6.1 SITE-SPECIFIC HAZARD COMMUNICATION AND ACCESS BRIEFING

Since different training requirements may be needed based on the nature of different tasks to be performed, specific training requirements may be identified. However, generally applicable training requirements are presented here. Visitors not entering any exclusion zone or contamination reduction zone who have very limited potential for exposure to contaminants require:

1. Site-specific hazard communication and access briefing.
 - All project personnel performing hands-on work that could potentially expose them to hazardous substances, safety, or health hazards will meet the following training requirements:
2. General Employee Training (GET)
 - 10 hour OSHA training, or equivalent (Note: for certain types of low risk work, 8 or 24 hour training is acceptable)
 - Site-specific hazard communication and access briefing

Prior to beginning work at the project site, all personnel will review this Health and Safety Plan and sign the training acknowledgment form (Appendix C). The site-specific hazard communication and access briefing is documented in the project logbook. If site conditions change or other hazards are detected, the training and access requirements will be revised accordingly.

6.2 MEDICAL SURVEILLANCE

A medical surveillance program will be conducted in accordance with the requirements of 29 CFR 1910.120 for:

- All employees who are or may be exposed to hazardous substances or health hazards at or above the established permissible exposure limits or, if there is no permissible exposure limit, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more a year.
- All employees who wear a respirator for 30 days or more a year or as required by 29 CFR 1910.134.
- All employees who are injured, become ill, or develop signs or symptoms due to possible overexposure involving hazardous substances or health hazards from an emergency response or hazardous waste operation.
- Members of HAZMAT teams.

All contractors' employees receive periodic medical examinations. Because of the low potential for exposure to hazardous agents, it is not expected that additional medical surveillance will be required for any personnel undertaking this project. If necessary, non-contractors personnel will be required to acknowledge coverage by a medical surveillance program sufficient to satisfy the requirements of 29 CFR 1910.120 (Appendix C).

7.0 COMMUNITY AIR MONITORING

Continuous monitoring will be required for all ground intrusive activities. Ground intrusive activities include, but are not limited to, soil borings and excavation or installation of any temporary groundwater monitoring wells (if necessary). An exclusion zone will be established for work performed within the building and the same protocols as listed below will be followed.

Reliance on the CAMP will not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using a MultiRAE Photoionization Detector (PID). The PID will be calibrated once daily utilizing the factory-supplied and recommended calibration gas (isobutylene).

If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (PPM) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 PPM over background, work activities will resume with continued monitoring.

If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 PPM over background but less than 25 PPM, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level at the downwind property line (within 50 feet of the exclusion zone), is below 5 PPM over background for the 15-minute average.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings will be recorded and be available for DEP personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Suppression Measures

If field measurements indicate the necessity for VOC/odor control, the appropriate suppressant will be selected (e.g., environmentally-protective foam, water, etc.) to be applied. If required, odor suppressant will be applied utilizing a compressed-air power spray nozzle or garden hose (water).

As previously stated, continuous monitoring of the work zone and areas downwind will be conducted during field activities, as well as during any required suppression measures. Once acceptable levels are achieved, work will continue, along with the required community air monitoring.

Disposal Procedures

Purge and decontamination or other fluids will be placed in DOT-rated 17H 55-gallon liquid tight-drums or collected directly into vacuum vehicles. All containers will be appropriately labeled *each day* prior to leaving the site. Each work location will be thoroughly cleaned at the end of each work day. All garbage, debris, and soil will be placed in sealed, appropriately labeled containers each day. Equipment remaining on-site overnight will be stored in a neat, safe and secure fashion.

8.0 G.C. ENVIRONMENTAL, INC. APPROVALS

This HASP has been prepared for the following project:

101 Westmoreland Avenue
White Plains, Westchester, New York
GCE Project Number: 05-003-00

If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 PPM over background but less than 25 PPM, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level at the downwind property line (within 50 feet of the exclusion zone), is below 5 PPM over background for the 15-minute average.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings will be recorded and be available for DEP personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

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If field measurements indicate the necessity for VOC/odor control, the appropriate suppressant will be selected (e.g., environmentally-protective foam, water, etc.) to be applied. If required, odor suppressant will be applied utilizing a compressed-air power spray nozzle or garden hose (water).

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8.0 G.C. ENVIRONMENTAL, INC. APPROVALS

This HASP has been prepared for the following project:

101 Westmoreland Avenue
White Plains, Westchester, New York
GCE Project Number: 05-003-00

This HASP has been reviewed and approved by the following G. C. Environmental personnel:



03/25/15

Ravi Kumar Kolaventi
Site Supervisor

Date



03/25/15

Gregory Collins
Site Safety and Health Officer

Date

APPENDIX A

CHEMICAL DESCRIPTIONS

CHEMICAL DESCRIPTIONS

The following general chemical descriptions are presented for chemicals that are of importance. Each chemical description includes physical and odor recognition characteristics, health effects associated with exposure, and exposure limits expressed as an eight-hour time weighted average (TWA). Provided are federal OSHA (“OSHA”) permissible exposure limits (PELs; located in 29 CFR 1910.1000).

Benzene

A colorless to light-yellow liquid with an aromatic odor. It reacts with strong oxidizers, fluorides and perchlorates. Exposure may cause irritation of the eyes, skin and nose. Symptoms of exposure include giddiness, headache, nausea, staggered gait, and fatigue. Benzene has been found to be a carcinogen (leukemia).

Toluene

A colorless liquid. Inhalation of 200 ppm for 8 hours may cause impaired coordination and reaction time. Higher acute exposures may cause narcosis and intoxication. Concentrations of 200-500 ppm induce headache, nausea, eye irritation, loss of appetite, loss of coordination and reduce reaction time. Symptoms usually cease following removal from exposure

Ethylbenzene

Colorless liquid with an acrid odor. Reacts with oxidizers, peroxides, high moisture and strong alkalis. Exposure may cause irritation of the eyes, skin and respiratory system. Has been shown to cause tumors of the fore-stomach in animals.

Xylenes

A colorless liquid. Vapors cause headaches and dizziness. Liquid irritates the skin and eyes. If taken into lungs, causes severe coughing, distress and rapidly developing pulmonary edema. If ingested, causes nausea, vomiting, cramps, headache and coma; can be fatal. Kidney and liver damage can occur.

Tetrachloroethylene (PCE)

A colorless, non-flammable liquid with an “ether” odor. High concentrations cause drowsiness, stupor, loss of consciousness and difficulty in breathing. Vapors may irritate the eyes, nose and throat. Skin contact may cause rash (contact dermatitis).

Trichloroethylene (TCE)

A colorless liquid with a chloroform like odor. Is chemically reactive with strong caustics and alkalis and chemically active metals such as barium, lithium, sodium, magnesium and beryllium. Ingestion may cause tremors, nausea and vomiting. The vapors irritate the eyes and skin. Skin contact may cause rash. Additional symptoms of exposure may include vertigo, visual disturbance, fatigue and giddiness.

Effects with Exposure:

Eyes: Moderate irritant. Contact with liquid or vapor may cause irritation.

Skin: Practically non-toxic if absorbed following acute (single) exposure. May cause skin irritation with prolonged or repeated contact. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are exposed repeatedly.

Ingestion: The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even

death. Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.

Inhalation: Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

Chronic Effects and Carcinogenicity: PAH compounds have the potential to cause anemia and other blood diseases, including leukemia, after repeated and prolonged exposure. Exposure to light hydrocarbons in the same boiling range as this product has been associated in animal studies with systemic toxicity.

Medical Conditions Aggravated by Exposure: Irritation from skin exposure may aggravate existing open wounds, skin disorders, and dermatitis (rash). Chronic respiratory disease, liver or kidney dysfunction, or pre-existing central nervous system disorders may be aggravated by exposure.

Exposure Limits:

Components:

Naphthalene 10 ppm

Benz (a) anthracene 0.02 ppm

Benz (b) fluoranthene 0.02 ppm

Benzo pyrene 0.02 ppm

Fluorene: no limits setup

Acenaphthene: no limits setup

APPENDIX B

G. C. ENVIRONMENTAL, INC. FORMS

Project Name _____ GCE Project No. _____

Project Activities _____

	YES	NO	N/A
<i>Written Health and Safety Plan (HSP) is on site</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Addenda to the HSP are documented on site</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Information in the HSP matches conditions and activities at the site</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>HSP has been read and signed by all site personnel, including visitors</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Daily tailgate safety meetings have been held and documented</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Site personnel have appropriate training and medical clearance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Air monitoring is performed and documented as described in the HSP</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Air monitoring equipment has been calibrated daily</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Site zones are set up and observed where appropriate</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Access to the work area limited to authorized personnel</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Decontamination procedures are followed and match the requirements of the HSP</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Decontamination stations (including hand/face wash) are set up and used</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Personal protective equipment used matches HSP requirements</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Hearing protection used where appropriate</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Respirators are properly cleaned and stored</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Trenches and excavations are in compliance with federal, state, and local safety requirements before worker entry</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Spoils are placed no closer than 2 feet from the edge of an excavation</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Emergency and first aid equipment is on site as described in the HSP</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Drinking water is readily available</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Accessible phone is readily available for emergency use</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Proper drum and material handling techniques are used</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Drums and waste containers are labeled appropriately</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Extension cords are grounded and protected from water and vehicle traffic</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Ground-fault circuit interrupters (GFCI) are used with electrical equipment</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Tools and equipment are in good working order</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Lighting is adequate</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Compressed gas cylinders are upright and secured</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes (All "no" answers must be addressed and corrected immediately. Note additional health and safety observations here): _____

Conducted By: _____ Signature: _____ Date: _____

APPENDIX C

HOSPITAL ROUTE MAP

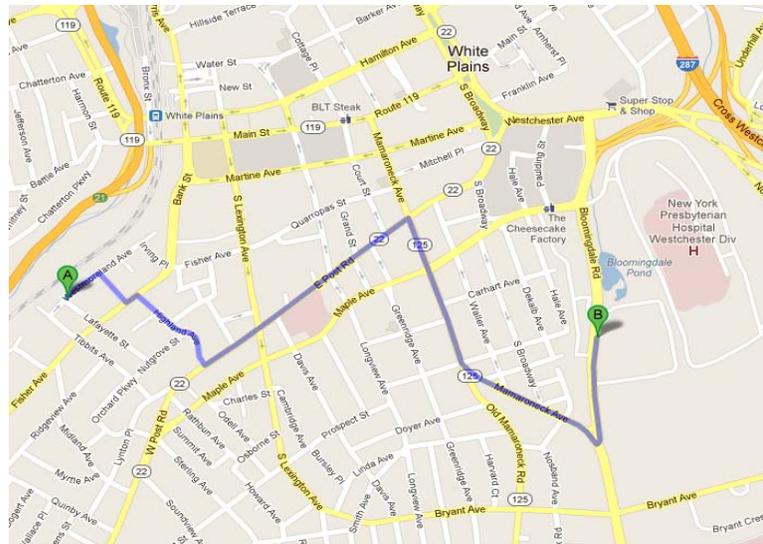
ROUTE TO HOSPITAL

Driving Directions to Hospital

Hospital/Westchester Division,
21 Bloomingdale Road
White Plains, New York 10605.

from 101 Westmoreland Avenue, White Plains, New York :

1. Take fisher Avenue to South Lexington Avenue (0.3 miles)
2. Drive along Maple Avenue (1.0 miles)
3. Drive to your destination (0.6 miles)



APPENDIX C

BORING/MONITORING WELL LOG

FIELD GEOLOGIST: VAL GATALLIN	BORING/MW NO.: B-12	GROUND ELEV.:
BORING CONTRACTOR: G.C.ENVIRONMENTAL, INC.	LOCATION: 101 WESTMORELAND AVENUE WHITE PLAINS, NY 10606	TOP OF CASING ELEV.:
FOREMAN: GREGORZ ZDUNCHIK	DATE: 10/31/2007	

CASING: SIZE: HAMMER: FALL:	SAMPLER: TYPE: 2"Ø GEOPROBE HAMMER: FALL:	GROUNDWATER LEVEL READINGS: DATE: DEPTH:
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SAMPLE						GENERAL STRATA DESCRIP.	SAMPLE DESCRIPTION	WELL INSTALLATION LOG	FIELD TESTING (PPM)	NOTES
DEPTH	CAS. BL./FT.	NO.	DEPTH	PEN./RE	BLOWS					
		S-1	0-2	70%		FILL	CONCRETE		42.0	PETROLEUM? ODDR
		S-2	2-4	70%			FILL: BROWN-GRAY FINE COARSE SAND, FRAGMENTS OF BRICKS AND COAL		6.5	
		S-3	5-7	70%					0.2	
10		S-4	10-12	75%		SAND	LIGHT-GRAY, FINE-COARSE SAND, LITTLE FINE-MEDIUM GRAVEL, IN THE LOWER PORTION - SEAMS OF SILTY SAND		0.0	
		S-5	15-17	75%					0.8	
20		S-6	20-22	80%					1.3	
		S-7	25-27	80%					7.6	
30							GROUNDWATER			
							END OF BOREHOLE			

NOTES: SOIL SAMPLES B-12, S-1, B-12, S-2 AND B-12, S-7 WERE SENT TO THE LABORATORY

 <p>G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS</p> <p>410 SAW MILL RIVER ROAD, ARDSLEY, NY 10502 Tel: (914) 674-4346 Fax: (914) 674-4348</p>	<p>SITE CHARACTERIZATION</p> <p>101 WESTMORELAND AVENUE, WHITE PLAINS, NY 10606</p> <p>DEC SPILL NO. 01-02386 GCE PROJECT NO: 05-003-00</p>	<p><u>DWG. TITLE:</u></p> <p style="text-align: center;">B-12</p>
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BORING/MONITORING WELL LOG

FIELD GEOLOGIST: VAL GATALLIN	BORING/MW NO.: B-15	GROUND ELEV.:
BORING CONTRACTOR: G.C.ENVIRONMENTAL, INC.	LOCATION: 101 WESTMORELAND AVENUE WHITE PLAINS, NY 10606	TOP OF CASING ELEV.:
FOREMAN: GREGORZ ZDUNCHIK	DATE: 10/31/2007	

CASING: SIZE: HAMMER: FALL:	SAMPLER: TYPE: 2" GEOPROBE HAMMER: FALL:	GROUNDWATER LEVEL READINGS: DATE: DEPTH:
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SAMPLE						GENERAL STRATA DESCRIP.	SAMPLE DESCRIPTION	WELL INSTALLATION LOG	FIELD TESTING (PPM)	NOTES
DEPTH	CAS. BL./FT.	NO.	DEPTH	PEN./RE	BLOWS					
		S-1	0-2	70%		FILL	CONCRETE		0.2	
		S-2	3-5	70%		SAND	FILL: DARK-GRAY FINE COARSE SAND, FRAGMENTS OF BRICKS AND COAL LIGHT-GRAY, FINE-COARSE SAND, LITTLE FINE-MEDIUM GRAVEL, IN THE LOWER PORTION - SEAMS OF SILTY SAND		0.8	
		S-3	5-7	70%					0.2	
10		S-4	10-12	75%					0.8	
		S-5	15-17	80%					0.2	
20		S-6	20-22	80%					0.2	
		S-7	25-27	80%					1.3	
30										
							GROUNDWATER			
							END OF BOREHOLE			

NOTES: SOIL SAMPLES B-15, S-1 AND B-15, S-7 WERE SENT TO THE LABORATORY FOR ANALYSIS

 <p>G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS</p> <p>410 SAW MILL RIVER ROAD, ARDSLEY, NY 10502 Tel: (914) 674-4346 Fax: (914) 674-4348</p>	SITE CHARACTERIZATION 101 WESTMORELAND AVENUE, WHITE PLAINS, NY 10606 DEC SPILL NO. 01-02386 GCE PROJECT NO: 05-003-00	DWG. TITLE: B-15
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BORING/MONITORING WELL LOG

FIELD GEOLOGIST: VAL GATALLIN	BORING/MW NO.: B-16	GROUND ELEV.:
BORING CONTRACTOR: G.C.ENVIRONMENTAL, INC.	LOCATION: 101 WESTMORELAND AVENUE WHITE PLAINS, NY 10606	TOP OF CASING ELEV.:
FOREMAN: GREGORZ ZDUNCHIK	DATE: 10/31/2007	

CASING: SIZE: HAMMER: FALL:	SAMPLER: TYPE: 2" GEOPROBE HAMMER: FALL:	GROUNDWATER LEVEL READINGS: DATE: DEPTH:
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SAMPLE						GENERAL STRATA DESCRIP.	SAMPLE DESCRIPTION	WELL INSTALLATION LOG	FIELD TESTING (PPM)	NOTES	
DEPTH	CAS. BL./FT.	NO.	DEPTH	PEN./RE	BLOWS						
		S-1	0-2	70%		FILL	CONCRETE		4.5		
		S-2	3-5	70%		SAND	FILL: RED-BLACK FINE COARSE SAND, FRAGMENTS OF BRICKS AND COAL LIGHT-GRAY, FINE-COARSE SAND, LITTLE FINE-MEDIUM GRAVEL, IN THE LOWER PORTION - SEAMS OF SILTY SAND		0.2		
		S-3	5-7	70%						0.2	
10		S-4	10-12	75%						0.0	
		S-5	15-17	80%						0.0	
20		S-6	20-22	80%						0.2	
		S-7	25-27	80%						1.8	
30									GROUNDWATER		
							END OF BOREHOLE				

NOTES: SOIL SAMPLES B-16, S-1 AND B-16, S-7 WERE SENT TO THE LABORATORY FOR ANALYSIS

 <p>G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS</p> <p>410 SAW MILL RIVER ROAD, ARDSLEY, NY 10502 Tel: (914) 674-4346 Fax: (914) 674-4348</p>	<p style="text-align: center;">SITE CHARACTERIZATION</p> <p>101 WESTMORELAND AVENUE, WHITE PLAINS, NY 10606</p> <p>DEC SPILL NO. 01-02386 GCE PROJECT NO: 05-003-00</p>	<p style="text-align: center;">DWG. TITLE:</p> <p style="text-align: center;">B-16</p>
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BORING/MONITORING WELL LOG

FIELD GEOLOGIST: VAL GATALLIN	BORING/MW NO.: B-17	GROUND ELEV.:
BORING CONTRACTOR: G.C.ENVIRONMENTAL, INC.	LOCATION: 101 WESTMORELAND AVENUE WHITE PLAINS, NY 10606	TOP OF CASING ELEV.:
FOREMAN: GREGORZ ZDUNCHIK	DATE: 10/31/2007	

CASING: SIZE: HAMMER: FALL:	SAMPLER: TYPE: 2" GEOPROBE HAMMER: FALL:	GROUNDWATER LEVEL READINGS: DATE: DEPTH:
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SAMPLE						GENERAL STRATA DESCRIP.	SAMPLE DESCRIPTION	WELL INSTALLATION LOG	FIELD TESTING (PPM)	NOTES
DEPTH	CAS. BL./FT.	NO.	DEPTH	PEN./RE	BLOWS					
		S-1	0-2	70%		FILL	CONCRETE		1.3	
		S-2	3-5	70%		SAND	FILL: RED-BLACK FINE COARSE SAND, FRAGMENTS OF BRICKS AND COAL LIGHT-GRAY, FINE-COARSE SAND, LITTLE FINE-MEDIUM GRAVEL, IN THE LOWER PORTION - SEAMS OF SILTY SAND		0.2	
		S-3	5-7	70%					0.0	
10		S-4	10-12	75%					0.0	
		S-5	15-17	80%					0.0	
20		S-6	20-22	80%					0.2	
		S-7	25-27	80%					0.8	
30										
							GROUNDWATER			
							END OF BOREHOLE			

NOTES: SOIL SAMPLES B-17, S-1 AND B-17, S-7 WERE SENT TO THE LABORATORY FOR ANALYSIS

 <p>G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS</p> <p>410 SAW MILL RIVER ROAD, ARDSLEY, NY 10502 Tel: (914) 674-4346 Fax: (914) 674-4348</p>	<p style="text-align: center;">SITE CHARACTERIZATION</p> <p>101 WESTMORELAND AVENUE, WHITE PLAINS, NY 10606</p> <p>DEC SPILL NO. 01-02386 GCE PROJECT NO: 05-003-00</p>	<p style="text-align: center;">DWG. TITLE:</p> <p style="text-align: center;">B-17</p>
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BORING/MONITORING WELL LOG

FIELD GEOLOGIST: JON HICKEY	BORING/MW NO.: B-23	GROUND ELEVATION:
BORING CONTRACTOR: G. C. ENVIRONMENTAL, INC.	LOCATION: 101 WESTMORELAND AVENUE WHITE PLAINS, NY 10606	TOP OF CASING ELEV.:
FOREMAN: G. ZDUNCZYK	DATE: 02/24/2009	

CASING: SIZE: HAMMER: FALL:	SAMPLER: TYPE: GEOPROBE 6610DT (2" Ø) HAMMER: FALL:	GROUNDWATER LEVEL READINGS: DATE: 02/24/2009 DEPTH: 27.5'
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SAMPLE						GENERAL STRATA DESCRIP.	SAMPLE DESCRIPTION	WELL INSTALLATION LOG	FIELD TESTING (PPM)	NOTES	
DEPTH (FT)	CAS. BL./FT.	NO.	DEPTH (FT)	PEN./REC.	BLOWS						
		S-1	1-3	50%		FILL	ASPHALT AND STONES		0		
		S-2	3-5	50%			DARK GREY FINE-COARSE SAND, FRAGMENTS OF RED BRICK AND COAL		0		
10		S-3	8-10	100%		SAND	LIGHT-BROWN FINE-MEDIUM SAND, LITTLE FINE GRAVEL		0		
		S-4	13-15	100%						0	
		S-5	18-20	100%						0	
20		S-6	23-25	100%						0	
		S-7	26-27	85%						0	
30								GROUNDWATER			
								END OF BOREHOLE			
40											

NOTE: SOIL SAMPLES B-23, S-1 AND B-23, S-7, AND GROUNDWATER SAMPLE B-23, WS-1 WERE SENT TO THE LABORATORY FOR ANALYSIS

 <p>G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS</p> <p>410 SAW MILL RIVER ROAD, ARDSLEY, NY 10502 Tel: (914) 674-4346 Fax: (914) 674-4348</p>	SITE CHARACTERIZATION 101 WESTMORELAND AVENUE WHITE PLAINS, NEW YORK GCE PROJECT NO: 05-003-00	DWG. TITLE: B-23
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BORING/MONITORING WELL LOG

FIELD GEOLOGIST: VAL GATALLIN	BORING/MW NO.: MW-1	GROUND ELEV.: 210.5'
BORING CONTRACTOR: SUMMIT DRILLING	LOCATION: 101 WESTMORELAND AVENUE WHITE PLAINS, NY 10606	TOP OF CASING ELEV.: 210.26'
FOREMAN: JOHN VOGT	DATE: 12/27/2001	

CASING: SIZE: 2" HAMMER: FALL:	SAMPLER: TYPE: HAMMER: FALL:	GROUNDWATER LEVEL READINGS: DATE: 09/21/2005 DEPTH: 29.59' BELOW GRADE
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SAMPLE						GENERAL STRATA DESCIP.	SAMPLE DESCRIPTION	WELL INSTALLATION LOG	FIELD TESTING	NOTES
DEPTH	CAS. BL./FT.	NO.	DEPTH	PEN./REC.	BLOWS					
10						SAND	DARK-BROWN MEDIUM-COARSE SAND, LITTLE FINE GRAVEL			MONITORING WELL MANHOLE MONITORING WELL CAP BENTONITE-CEMENT GROUT BENTONITE SEAL SCHEDULE 40 2" DIA. PVC SCREEN WITH SLOTS 0.02" FILTER PACK No. 2 SAND END OF BOREHOLE
11										
12										
13										
14										
15										
16										
17										
18										
19										
20						SAND GROUNDWATER ENCOUNTERED	DARK-BROWN MEDIUM-COARSE SAND, LITTLE FINE GRAVEL			
21										
22										
23										
24										
25										
26										
27										
28										
29										
30						SAND GROUNDWATER ENCOUNTERED	DARK-BROWN MEDIUM-COARSE SAND, LITTLE FINE GRAVEL			
31										
32										
33										
34										
35										
36										
37										
38										
39										
40						SAND GROUNDWATER ENCOUNTERED	DARK-BROWN MEDIUM-COARSE SAND, LITTLE FINE GRAVEL			
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										

NOTE: GROUNDWATER SAMPLE MW-1, S-1 WAS SENT TO THE LABORATORY FOR ANALYSIS

G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS 410 SAW MILL RIVER ROAD, ARDSLEY, NY 10502 Tel: (914) 674-4346 Fax: (914) 674-4348	ADDITIONAL SUBSURFACE INVESTIGATION 101 WESTMORELAND AVENUE WHITE PLAINS, NEW YORK DEC SPILL NO. 01-02386 GCE PROJECT NO: 05-003-00	DWG. TITLE: MW-1
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BORING/MONITORING WELL LOG

FIELD GEOLOGIST: JON HICKEY	BORING/MW NO.: MW-5	GROUND ELEVATION:
BORING CONTRACTOR: G. C. ENVIRONMENTAL, INC.	LOCATION: 101 WESTMORELAND AVENUE WHITE PLAINS, NY 10606	TOP OF CASING ELEV.: 209.81'
FOREMAN: G. ZDUNCZYK	DATE: 02/18/2009	

CASING: SIZE: 4.25" ID HSA	SAMPLER: TYPE:	GROUNDWATER LEVEL READINGS: DATE: 3/18/2009
HAMMER:	HAMMER:	DEPTH: 27.75'
FALL:	FALL:	

SAMPLE						GENERAL STRATA DESCRIP.	SAMPLE DESCRIPTION	WELL INSTALLATION LOG	FIELD TESTING	NOTES
DEPTH (FT)	CAS. BL./FT.	NO.	DEPTH (FT)	PEN./REC.	PID					
						FILL	CONCRETE			8" MONITORING WELL MANHOLE
					0		DARK GREY FINE-COARSE SAND, FRAGMENTS OF BRICK AND COAL			MONITORING WELL PLUG
10					0					
					0	SAND	LIGHT-BROWN MEDIUM-COARSE SAND, LITTLE FINE-COARSE GRAVEL			SCHEDULE 40 2" DIA. PVC RISER
20					0					BENTONITE-CEMENT GROUT
					0		GROUNDWATER ENCOUNTERED AT 27.75'			BENTONITE SEAL
30					0					FILTER PACK NO. 2 SAND
					0					SCHEDULE 40 2" DIA. PVC SCREEN WITH 0.02" SLOTS
										BOTTOM CAP
40										END OF BOREHOLE (REFUSAL AT 37 FT)

NOTE: GROUNDWATER SAMPLE MW-5, WS-1 WAS SENT TO THE LABORATORY FOR ANALYSIS

 <p>G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS</p> <p>410 SAW MILL RIVER ROAD, ARDSLEY, NY 10502 Tel: (914) 674-4346 Fax: (914) 674-4348</p>	SITE CHARACTERIZATION 101 WESTMORELAND AVENUE WHITE PLAINS, NEW YORK GCE PROJECT NO: 05-003-00	DWG. TITLE: MW-5
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BORING/MONITORING WELL LOG

FIELD GEOLOGIST: JON HICKEY	BORING/MW NO.: MW-6	GROUND ELEVATION:
BORING CONTRACTOR: G. C. ENVIRONMENTAL, INC.	LOCATION: 101 WESTMORELAND AVENUE WHITE PLAINS, NY 10606	TOP OF CASING ELEV.: 209.76'
FOREMAN: G. ZDUNCZYK	DATE: 02/17/2009	

CASING: SIZE: 4.25" ID HSA	SAMPLER: TYPE:	GROUNDWATER LEVEL READINGS: DATE: 3/18/2009
HAMMER:	HAMMER:	DEPTH: 27.81'
FALL:	FALL:	

SAMPLE						GENERAL STRATA DESCRIP.	SAMPLE DESCRIPTION	WELL INSTALLATION LOG	FIELD TESTING	NOTES
DEPTH (FT)	CAS. BL./FT.	NO.	DEPTH (FT)	PEN./REC.	PID					
					0		CONCRETE			
					0	FILL	DARK GREY FINE-COARSE SAND, FRAGMENTS OF BRICK AND COAL			8" MONITORING WELL MANHOLE
										MONITORING WELL PLUG
10					0	SAND	LIGHT-BROWN MEDIUM-COARSE SAND, LITTLE FINE-COARSE GRAVEL			SCHEDULE 40 2" DIA. PVC RISER
20										BENTONITE-CEMENT GROUT
					1.5		GROUNDWATER ENCOUNTERED AT 27.81'			BENTONITE SEAL
30					1.5					FILTER PACK NO. 2 SAND
					0					SCHEDULE 40 2" DIA. PVC SCREEN WITH 0.02" SLOTS
40										BOTTOM CAP
										END OF BOREHOLE

NOTE: GROUNDWATER SAMPLE MW-6, WS-1 WAS SENT TO THE LABORATORY FOR ANALYSIS

 <p>G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS</p> <p>410 SAW MILL RIVER ROAD, ARDSLEY, NY 10502 Tel: (914) 674-4346 Fax: (914) 674-4348</p>	SITE CHARACTERIZATION 101 WESTMORELAND AVENUE WHITE PLAINS, NEW YORK GCE PROJECT NO: 05-003-00	DWG. TITLE: MW-6
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BORING/MONITORING WELL LOG

FIELD GEOLOGIST: JON HICKEY	BORING/MW NO.: MW-7	GROUND ELEVATION:
BORING CONTRACTOR: G. C. ENVIRONMENTAL, INC.	LOCATION: 101 WESTMORELAND AVENUE WHITE PLAINS, NY 10606	TOP OF CASING ELEV.: 209.93'
FOREMAN: G. ZDUNCZYK	DATE: 02/19/2009	

CASING: SIZE: 4.25" ID HSA	SAMPLER: TYPE:	GROUNDWATER LEVEL READINGS: DATE: 3/18/2009
HAMMER:	HAMMER:	DEPTH: 27.41'
FALL:	FALL:	

SAMPLE						GENERAL STRATA DESCIP.	SAMPLE DESCRIPTION	WELL INSTALLATION LOG	FIELD TESTING	NOTES
DEPTH (FT)	CAS. BL./FT.	NO.	DEPTH (FT)	PEN./REC.	PID					
					0		TOPSOIL AND STONES			
					0	FILL	DARK GREY MEDIUM-COARSE SAND, FRAGMENTS OF BRICK AND COAL, LITTLE MEDIUM-COARSE GRAVEL			8" MONITORING WELL MANHOLE
										MONITORING WELL PLUG
10					0	SAND	LIGHT-BROWN MEDIUM-COARSE SAND, LITTLE FINE-MEDIUM GRAVEL			SCHEDULE 40 2" DIA. PVC RISER
					0					BENTONITE-CEMENT GROUT
20					0					BENTONITE SEAL
					0		GROUNDWATER ENCOUNTERED AT 27.41'			
					0					FILTER PACK NO. 2 SAND
30					0					SCHEDULE 40 2" DIA. PVC SCREEN WITH 0.02" SLOTS
					0					BOTTOM CAP
40										END OF BOREHOLE

NOTE: GROUNDWATER SAMPLE MW-7, WS-1 WAS SENT TO THE LABORATORY FOR ANALYSIS

 <p>G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS</p> <p>410 SAW MILL RIVER ROAD, ARDSLEY, NY 10502 Tel: (914) 674-4346 Fax: (914) 674-4348</p>	SITE CHARACTERIZATION 101 WESTMORELAND AVENUE WHITE PLAINS, NEW YORK GCE PROJECT NO: 05-003-00	DWG. TITLE: MW-7
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BORING/MONITORING WELL LOG

FIELD GEOLOGIST: JON HICKEY	BORING/MW NO.: MW-8	GROUND ELEVATION:
BORING CONTRACTOR: G. C. ENVIRONMENTAL, INC.	LOCATION: 101 WESTMORELAND AVENUE WHITE PLAINS, NY 10606	TOP OF CASING ELEV.: 210.13'
FOREMAN: G. ZDUNCZYK	DATE: 02/19/2009	

CASING: SIZE: 4.25" ID HSA	SAMPLER: TYPE:	GROUNDWATER LEVEL READINGS: DATE: 3/18/2009
HAMMER:	HAMMER:	DEPTH: 28.34'
FALL:	FALL:	

SAMPLE						GENERAL STRATA DESCRIP.	SAMPLE DESCRIPTION	WELL INSTALLATION LOG	FIELD TESTING	NOTES
DEPTH (FT)	CAS. BL./FT.	NO.	DEPTH (FT)	PEN./REC.	PID					
						FILL	TOPSOIL AND STONES DARK GREY FINE-COARSE SAND, FRAGMENTS OF BRICK AND COAL			8" MONITORING WELL MANHOLE MONITORING WELL PLUG
10					0	SAND	LIGHT-BROWN MEDIUM-COARSE SAND, SOME FINE-COARSE GRAVEL			SCHEDULE 40 2" DIA. PVC RISER
20					0					
					0		GROUNDWATER ENCOUNTERED AT 28.34'			BENTONITE SEAL
30					0					FILTER PACK NO. 2 SAND
40					0					SCHEDULE 40 2" DIA. PVC SCREEN WITH 0.02" SLOTS
										BOTTOM CAP
										END OF BOREHOLE

NOTE: GROUNDWATER SAMPLE MW-8, WS-1 WAS SENT TO THE LABORATORY FOR ANALYSIS

 <p>G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS</p> <p>410 SAW MILL RIVER ROAD, ARDSLEY, NY 10502 Tel: (914) 674-4346 Fax: (914) 674-4348</p>	SITE CHARACTERIZATION 101 WESTMORELAND AVENUE WHITE PLAINS, NEW YORK GCE PROJECT NO: 05-003-00	DWG. TITLE: MW-8
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BORING/MONITORING WELL LOG

FIELD GEOLOGIST: JON HICKEY	BORING/MW NO.: MW-9	GROUND ELEVATION:
BORING CONTRACTOR: G. C. ENVIRONMENTAL, INC.	LOCATION: 101 WESTMORELAND AVENUE WHITE PLAINS, NY 10606	TOP OF CASING ELEV.: 210.43'
FOREMAN: G. ZDUNCZYK	DATE: 02/18/2009	

CASING: SIZE: 4.25" ID HSA	SAMPLER: TYPE:	GROUNDWATER LEVEL READINGS: DATE: 3/18/2009
HAMMER:	HAMMER:	DEPTH: 29.66'
FALL:	FALL:	

SAMPLE						GENERAL STRATA DESCRIP.	SAMPLE DESCRIPTION	WELL INSTALLATION LOG	FIELD TESTING	NOTES
DEPTH (FT)	CAS. BL./FT.	NO.	DEPTH (FT)	PEN./REC.	PID					
					0	FILL	TOPSOIL AND STONES			8" MONITORING WELL MANHOLE
							DARK GREY FINE-COARSE SAND, FRAGMENTS OF BRICK AND COAL			MONITORING WELL PLUG
10					1.5					
						SAND	LIGHT-BROWN MEDIUM-COARSE SAND, SOME FINE-COARSE GRAVEL			SCHEDULE 40 2" DIA. PVC RISER
20										BENTONITE-CEMENT GROUT
					0		GROUNDWATER ENCOUNTERED AT 29.66'			BENTONITE SEAL
30					0					FILTER PACK NO. 2 SAND
					0					SCHEDULE 40 2" DIA. PVC SCREEN WITH 0.02" SLOTS
40										BOTTOM CAP
										END OF BOREHOLE

NOTE: GROUNDWATER SAMPLE MW-9, WS-1 WAS SENT TO THE LABORATORY FOR ANALYSIS

 <p>G. C. ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS</p> <p>410 SAW MILL RIVER ROAD, ARDSLEY, NY 10502 Tel: (914) 674-4346 Fax: (914) 674-4348</p>	SITE CHARACTERIZATION 101 WESTMORELAND AVENUE WHITE PLAINS, NEW YORK GCE PROJECT NO: 05-003-00	DWG. TITLE: <p style="text-align: center;">MW-9</p>
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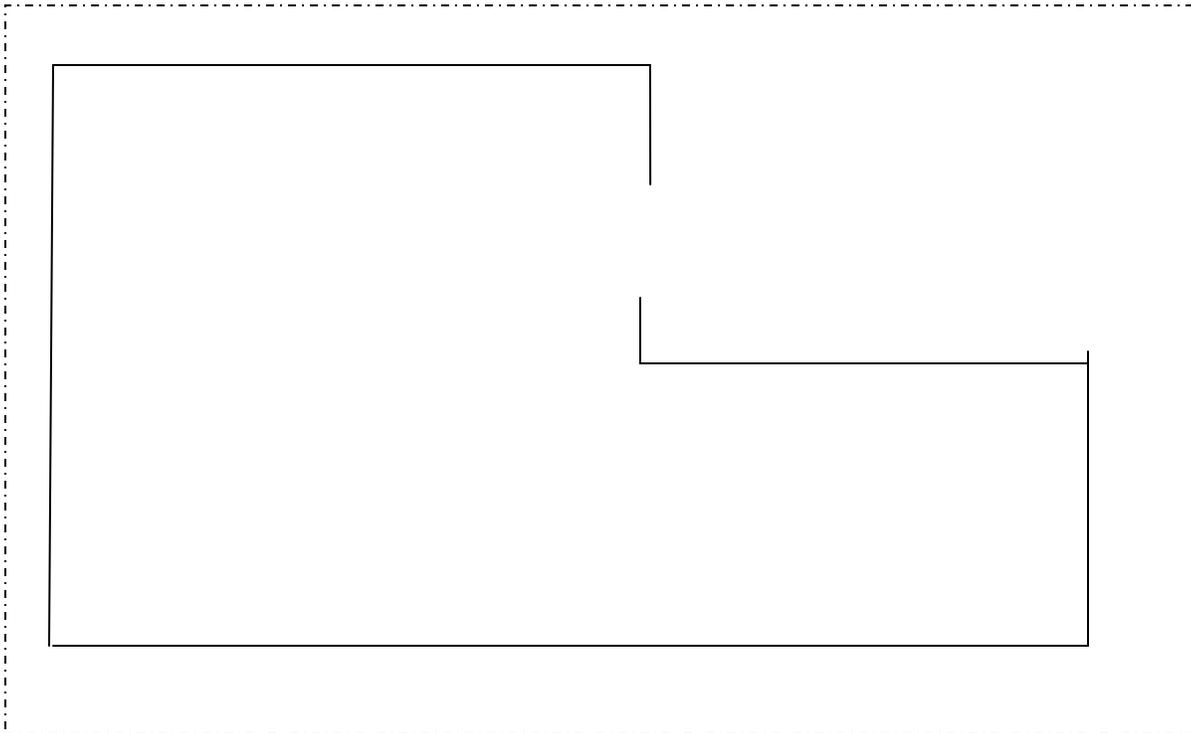
APPENDIX D

Automobile Club of New York (AAA)
101 Westmoreland Avenue, White Plains, NY
Cover System Checklist

Maintenance /Inspection Activities		Frequency			Yes	No
Building Slab/Pavement Inspection	Inspect for Any Cracks	Every visit	Monthly	Quarterly		
	Inspect for Any Opening, Damage, etc.					

any openings or cracks will be shown below site figure:

WESTMORELAND AVENUE



Groundwater Monitoring Well Sampling Log

Sampler's Name: _____ Weather Conditions: _____
 Company Name: _____ Air Temperature (°F): _____
 Sampler's Position: _____ Sample Location: _____
 Sampling Date: _____
 Sampling Time: _____

Sample Type (check all that apply)

- Composite Grab
 Groundwater Surface Water Soil Sediment
 Leachate Industrial Storm Sewer Gas
 Other _____

Monitoring Well Data

Casing Diameter _____ PVC Steel Other _____
 Static Water Level _____ from Well Casing from Protective Casing
 Bottom Depth _____ from Well Casing from Protective Casing
 Type of Water Level Indicator Steel Tape Electronic
 Water Volume in Well _____
 Well Condition _____

Monitoring Well Purge Data

Submersible Pump PVC Bailer Suction Pump Teflon Bailer
 Poly Bailer Poly Cup Other _____
 Dedicated Purge Equipment Yes No
 Pumping Rate _____ Elapsed Purge Time _____
 Bail Volume _____ Number of Bails _____
 Volume Purged _____ Well Volumes _____
 Start and End Purge Time _____ Well Evacuated Yes No

Sampling Data

Pump PVC Bailer Poly Bailer Teflon Bailer
 Stainless Bucket Poly Cup Tedlar Bag Direct
 Hand Corer Hand Auger Stainless Spoon Split Spoon
 Other _____
 Dedicated Sampling Equipment Yes No
 Metals Field Filtered Yes No
 Depth of Sample _____ Sample Containers _____

Physical and Chemical Data

Odor Yes No
 Sediment Yes No
 Color Yes No
 Appearance Clear Turbid Sheen Immiscible Product
 Other _____
 pH (SU) _____ Temp © _____ Conductivity _____
 ORP (mv) _____ Turbidity (NTUs) _____ PID (ppm) _____
 Comments: _____

APPENDIX E

N/F N.Y.S. Assoc. Returned

114.66'

N 30° 35' 00" W

98.22'

Stairwell Projects on

Chim
1'-0" W

One Story
Stucco

Roof Coping proj. 0:2
Window Sills proj. 0:1
20:1

48' 1 1/2"

Paved

45'-11"

One Story
Conc. Block

50'-1"

One Story
Conc. Block

N/F Watkins

N 30° 35' 00" W

0:8 1/2"

1:3"

Piers Proj. 2:0"

16"

N 59° 25' 00" E

78.27'

3' to div. line
between lots 257
258.

Westmoreland Avenue

Survey of parts of Lots 253 - 254 and 255 as on
"Map of Fisher Estate by Charles Harris" filed July
19, 1881 as map no. 689.



Enclosed as in possession

SCHEDULE "A"

(Attached to and made part of Deed from John A. Brester, Grantor, to Automobile Club of New York, Inc., Grantee, Dated 12/ /86).

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the City of White Plains, County of Westchester and State of New York, and known and designated as portions of Lots 253, 254 and 255 on a certain map entitled, "Map of the Fisher Estate, White Plains, N.Y." surveyed by Charles M. Harris, filed in the County Clerk's Office of Westchester County, Division of Land Records, formerly Register's Office of Westchester County on July 19, 1881, as Map No. 689, which portions of said lots when taken together as one parcel being more particularly bounded and described as follows:

BEGINNING at a point on the Northerly side of Westmoreland Avenue distant Easterly as measured along the same 146.73 feet from the point where the said Northerly side of Westmoreland Avenue is intersected by the division line between Lots 258 and 257 as shown on said map; running thence from said point of beginning through Lot Number 255, as shown on said map, North 30 degrees 35 minutes 00 seconds West 114.66 feet to the Southerly line of a Right of Way of the New York Central Railroad Harlem Division; running thence along the said Southerly line of a Right of Way of the New York Central Railroad Harlem Division North 59 Degrees 25 minutes 00 seconds East 78.27 feet to a point; running thence through Lot 253, as shown on said map, South 30 degrees 35 minutes 00 seconds East 114.66 feet to the Northerly side of Westmoreland Avenue; running thence along the said Northerly side of Westmoreland Avenue South 59 degrees 25 minutes 00 seconds West 78.27 feet to the point or place of beginning.