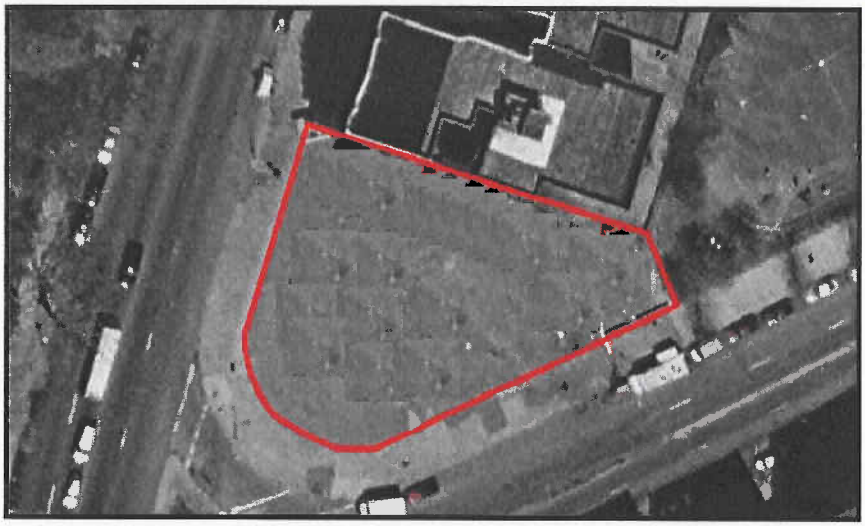
ADVANCED SITE RESTORATION, LLC
ENVIRONMENTAL SERVICES

REMEDIAL INVESTIGATION WORK PLAN

Brownfield Cleanup Program
4566 Broadway Avenue
New York, New York 10040
Project Identification Number C231054



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1.0 INTRODUCTION

Advanced Site Restoration, (ASR) has prepared this Remedial Investigation Work Plan (RIWP) for the New York State Department of Environmental Conservation (NYSDEC) on behalf of the client, 4566 Broadway, LLC. The purpose of this RIWP is to provide a detailed description of the proposed site investigation at 4566 Broadway, New York, the subject site. All activities relating to this investigation have been prepared in accordance with Section 3.3 (d) of DER-10and in accordance with the NYSDEC letter for May 29th, 2007 commenting on the draft Remedial Investigation Work Plan of February 2007.

2.0 SITE HISTORY & DESCRIPTION

This 0.36 acre site was used as a gasoline service station for a several decades. The NYC Dept. of Finance ACRIS System indicates that the Humble Oil & Refining Co. is listed on a 1966 deed for the property and the Exxon Corporation is listed on a 1976 deed for the property. Gaseteria Oil Corp. (GOC) owned and operated the site as a gasoline service station up to 2002. BP gasoline operated the site under a lease agreement until 2005. In 2006, the subject site became a 24 hr paid public parking facility. As of the date of this report, February 2007, it is still being used as a 24 hr paid public parking facility.

On October 3, 2002 Delta Environmental Consultants, Inc. completed a Baseline Acquisition Report for a proposed BP service station at the subject site. The subsurface investigation indicated that VOCs were present in the soil above the NYSDEC Technical and Administrative Guidance Memorandum (TAGM). The investigation also indicated the detection of VOCs including MtBE, and SVOCs in the groundwater in excess of the NYSDEC TAGM 4046 Groundwater Standards. A minor amount of metals were also detect in the groundwater. As a result of this investigation, NYSDEC Spill Number 02-30040 was assigned to the site.

GOC had three (3) 4,000-gallon gasoline underground storage tanks in one (1) tank cavity at the subject site. On October 15th and 17th, 2005, all underground storage tanks were removed and in February 2006, ASR completed a Tank Closure Report. End point soil samples from the bottom of the tank excavation would indicate concentrations of VOCs were significantly in excess of the NYSDEC TAGM 4046 Soil Cleanup Objectives to Protect Groundwater Quality.

The site was accepted into the Brownfield Cleanup Program on September 8th 2006 as a Participant. To assist in developing a development strategy for the site, Haley & Aldrich, Inc. (H&A) working in conjunction with ASR, performed a Geotechnical Investigation on the site. This investigation, which took place between September 29th and October 16th of 2006, was performed to investigate load bearing capacities of the sites soils. To assist in site characterization, three of the sites geotechnical borings were made into groundwater observation wells, identified as ASR-1, ASR-2, and ASR-3. As a portion of their geotechnical review, soil samples were collected during borehole advancement activities. The analysis of these soil samples would indicate the presence of VOCs and SVOCs.

On November 10, 2006 a Geotechnical Engineering Report was issued for this work, hereto attached as Addendum B. This report noted that petroleum and/or organic odors were encountered in 6 out of 9 soil borings that were completed by H & A. These odors were found at depths ranging from 5 to 20 feet, with free product observed at boring HA-8 at a depth of 8 feet. Please refer to APPENDIX – B. ASR also collected groundwater samples from ASR-1, ASR-2 and ASR-3 in October 2006 and January 2007. Analytical results confirmed VOC contamination including MTBE in the groundwater.

3.0 SCOPE OF WORK

The purpose of the Remedial investigation is to collect data of sufficient quality and quantity to supplement the previous investigations conducted at the site and to close gaps in the data necessary to adequately define the nature and extent of contamination in all media (soil, groundwater and soil vapor), evaluate contaminant migration, and quantify the potential exposure to the environment and human health. In order to delineate the groundwater contamination from the source area, and fully evaluate the site, ASR proposes the following work:

- A geo physical survey of the site will be performed to investigate areas where additional historic, undocumented, underground storage tanks could be located. This survey will encompass the entire site with an emphasis on the area of the known historic tanks and pump islands.
- A mark out of underground utilities using a third party service.
- The installation of two (2) on-site and six (6) off-site groundwater monitoring wells (future ASR-4 through ASR-11) to supplement three (3) existing groundwater monitoring wells on-site (ASR-1 through ASR-3). Figure 6, attached.
- The installation of two (2) additional on site soil borings to address potentially contaminated areas (SB1 and SB2). Figure 6, attached.
- Historic fill materials were identified on the subject property. This fill material will be documented and characterized for potential future disposal as defined in Section 5.0, Soil and Groundwater Sampling.
- ASR will install eleven (11) soil vapor monitoring points along the perimeter of the site and throughout the center of the property to evaluate the potential for fugitive vapor intrusion into adjacent structures. Eleven (11) soil vapor samples will be collected, one (1) from each point. Additionally, one (1) ambient air sample will also be collected from the site. The locations of these points are identified in Figure 7-Soil Vapor Sampling Plan, hereto attached. The installation and sampling of these points is outlined in section 6.0 Soil Vapor Sampling Protocol, below.
- Approximately one (1) week after the installation, all eleven (11) groundwater monitoring wells will be sampled. Samples will be submitted to York Analytical Laboratories for analysis of Volatile Organic Compounds (VOCs), Semi Volatile Organic Compounds (SVOCs) and Metals using EPA Method 8260, EPA Method 8270, and TAL Metals Herbicides/pesticides and Polychlorinated biphenyl (PCBs). All samples will be accompanied by a schedule B deliverable QA/QC package. Sampling procedures for these wells is outlined in 6.0 Soil and Groundwater Sampling, below.
- As a part of the investigation, a Qualitative Exposure Assessment will be conducted to evaluate the potential human health risks produced by residual contaminants on the subject property. The topics to be covered in this assessment are detailed below in Section 7.0 Qualitative Exposure Assessment.
- The findings of the investigation will be detailed in an Investigation Summary Report and submitted to the NYSDEC within 90 days of the sampling date.

Included within this RIWP are the following support documents:

- A Groundwater Sampling Results Map for the on-site wells using data that was collected in November 2006. (Figure 4, attached).
- A Groundwater Gradient Map using October 2006 survey data from Haley & Aldrich to determine the groundwater flow direction (Figure 5, attached).

Upon approval of the Investigation Work Plan, the investigation work on the site will be scheduled. ASR will provide the NYSDEC with a 10 days notice prior to the start of any field work.

All field activities must be conducted in accordance with the Site Specific Health and Safety Plan (HASP), hereto attached as Appendix D. All persons entering the site must read and sign the Hasp to acknowledge the hazard conditions at the site. Specifically, the work shall be divided into work zones to be determined. The Exclusion zones area shall be the immediate area of the drill rig radiating out 10 feet from the back of the drill rig. Contamination reduction zone shall be an additional 20 feet in diameter. Support zones shall be in the area beyond and all zones will be marked with caution tape and Traffic cones. Based on evaluation of potential hazards, the following levels of personal protection have been designated for the applicable work areas or tasks:

Job Function: Sampling/Monitoring/Drilling/ Well Installation

Level of Protection: Level D. Work uniform, steel tip boots, hard hat, safety glasses, work cloths, work gloves or rubber (latex) gloves as needed, hearing protection. A Class B fire extinguisher must be present in the exclusion zone. Air-purifying respirators are not required for these outlined tasks. Constant air monitoring will assure that the site remains a level D site. The primary hazards identified on the site are described below. Please review the HASP for more in-depth details of the hazards.

GASOLINE

Source: Primary site contaminant

Symptoms Following Exposure: Irritation of mucous membranes and stimulation followed by depression of central nervous system. Breathing of vapor may also cause dizziness, headache, and un-coordination or, in more severe cases, anesthesia, coma, and respiratory arrest. If liquid enters lungs, it will cause severe irritation, coughing, gagging, pulmonary edema, and, later, signs of bronchopneumonia and pneumonitis. Swallowing may cause irregular heartbeat. Contains carcinogens-avoid direct skin exposure.

NITRIC ACID

Source: Sample preservative

Symptoms Following Exposure: Vapors irritate eyes and respiratory tract; lung injury may not become apparent for several hours following exposure. Liquid may cause severe burns to eyes and skin.

4.0 BORING AND WELL INSTALLATION

Historic groundwater levels across the site range from 7.5 to 12 feet bsg. ASR will contract with a truck mounted drill rig to prepare ten (10) boreholes to approximately twenty (20) feet bgs, for the installation of eight (8) groundwater monitoring wells. Two borings will not be made into groundwater observation wells, but soil data will be collected (SB1 and SB2). SB 1 will be located down gradient directly and adjacent to the historic pump islands. SB2 will be located in the approximate location of HA-8, identified in the November 10, 2006 Geotechnical Engineering Report. This boring exhibited a high organic odor at twenty (20) feet bgs, but was not sampled during the geotechnical investigation. SB1 and SB 2 will be extended to a depth of 20 feet bsg where a terminal sample will also be taken.

Each soil boring will be manually dug to approximately three-five (3-5) ft bgs. Continuous five (5)

foot, split spoon sampling will be performed at each borehole, to approximately 20 ft bgs. Soil samples will be classified, soils and wells will be logged, and soils will be field screened for the presence of VOCs using a Photo-ionization Detector (PID). ASR field personnel will note any observations of visual and olfactory signs of contamination. If no PID levels are encountered within the boring, one (1) sample will be collected at the groundwater interface and submitted for analysis. If contaminated soils are encountered, and elevated PID levers are documented, additional samples will be taken to vertically profile the contamination. The sampling frequency will be every five (5) feet. These samples will be sent to an ELAP certified laboratory and analyzed as per section 5.0, Soil and Groundwater Sampling.

Eight (8) groundwater observation wells will be installed to a depth of twenty (20) feet. The wells will be constructed with five (5) feet of PVC riser pipe from the surface down. At the five (5) foot bgs level, thirteen (13) feet of two (2) inch diameter, 0.020 inch slot schedule forty (40) PVC screen will be added to insure that at least two feet (2) of screen exists above the water table and at least five (5) feet of screen extends below the groundwater level. At the eighteen (18) foot level, a two (2) foot blind, solid, sediment trap and terminal cap will be installed to a terminal depth of twenty (20) feet. All joints shall be flush threaded with no glue joints. A sand pack compatible with the well screen will be installed to a depth equal to one (1) foot above the top of the PVC screen. A one (1) foot thick bentonite seal will be installed above the sand pack followed by backfilling with uncontaminated cuttings to grade. A locking compression J-plug will be installed on the top of the well casing and finished off with a monitoring manhole cover flush mounted to grade.

5.0 SOIL AND GROUNDWATER SAMPLING

Groundwater samples will be collected from all of the observation wells including the three (3) existing wells. In order to prevent cross contamination, disposable sampling equipment will be used to extract water from the aquifer.

All groundwater quality sampling shall be done in accordance with EPA's Low-flow (minimal draw down) procedures. To attain this goal, disposable polyethylene tubing shall be used, and a peristaltic pump. Between the sampling of each well, the tubing will be discarded and new tubing attached. Purge water and development water will be drummed and properly disposed of.

Each well will be purged to remove 3 well volumes of water and then every 5 minutes until the groundwater chemistry stabilizes. Monitoring shall consist of PH, Specific Conductivity, Redox Potential, Dissolved Oxygen and Turbidity. The well shall be considered stabilized and ready for sampling when the following parameters are reached and maintained.

+0.1 for PH
+3% for Specific Conductance (Conductivity)
+10 mv for Redox Potential
+ 10 % for Dissolved Oxygen
+ 10 % for Turbidity

Samples will be transferred to appropriate sample containers, packed on ice, sent for analysis to an ELAP certified laboratory. All samples will be collected and managed in accordance with NYSDEC guidelines and protocols. The following sample analysis shall be requested for both soil and groundwater samples:

- TAL Metals via EPA method 6010B
- Volatile Organic Compounds (VOCs) via EPA Method 8260
- Semi Volatile Organic Compounds (SVOSs) via EPA Method 8270
- Pesticides/Herbicides and PBCs Via EPA methods 8082 and 8081

Historic fill materials were found on the site. To evaluate this material, borings SB1 and SB2 will have a composite sample made of the area identified as "fill". These two (2) composite samples will be analyzed for those listed above and also any additional parameters that might be identified for soil disposal. All boring logs will identify the vertical extent of fill material.

All samples will be accompanied by a schedule B deliverable QA/QC package.
All left over drill cuttings from soil boring advancement activities will stored on site in labeled United States Department of Transportation (USDOT) approved 55-gallon drums. Drums will be hauled off site to the appropriate disposal facility.

SOIL VAPOR SAMPLING PROTOCAL

This protocol was developed to comply with the requirements of the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York", Final Version, October 2006, Section 2.7.1.

ASR personnel will collect eleven (11) subsurface vapor samples from inside the boundaries of the subject property. One (1) outdoor ambient air sample will also be collected to characterize site specific background levels. Two (2) will be taken from the southern property boundary along Nagel Avenue. Two (2) will be taken along the Northeastern property boundary along Broadway. Three will be taken along the Northeastern property boundary, adjacent to the neighboring apartment building. One will be taken along the Eastern property boundary, adjacent to the school playground. Three (3) additional points will be collected from within the center of the property. These points are further defined on Figure 7- Soil Vapor Sampling Plan, hereto attached.

Geoprobe direct push soil sampler will be used to advance the borings through the concrete and asphalt into the underlying soils. A one and one eight inch (11/8) to inch diameter micro well of slotted PVC pipe will be inserted into each hole as a vapor point. Groundwater at the site has been determined to be between 7.5 and 12 feet bgs. In order to sample from one (1) foot above the groundwater table, as the guidance requires, this pipe will be slotted for a one (1) foot interval and have solid piping to the surface, totaling between 6.5 and 11 feet bgs. A sand pack of clean, inert, sand will be installed around the vapor point and two (2) bentinite seals installed; one (1) at the surface and one (1) starting four (4) feet above the screened area and ending one (1) foot above the bottom screen interval, three (3) feet in total. A PVC cap and a typical monitoring well cover will be installed to allow for re-sampling if needed.

Within the micro well, a one quarter (¼) polyethylene tube will be installed and brought to the surface of the well casing and capped. This casing will be having a three foot bentinite seal above the end of the sampling tube and then will be filled to one (1) foot below the surface with clean sand. An additional bentinite seal will be placed at the top of the vapor point.

To sample the vapor point, a clean 5 gallon plastic container will be placed on the surface of the ground above the vapor point. The plastic container will be placed in way where any vapors, if existent, would be likely to be collected. Next, a new Teflon-lined tube will be inserted through the plastic container and connected to the existing Permanente vapor tubing within the vapor point. The other end of the tubing will lead to the regulator on a 2 hour the summa canister. Prior to the collection of the sample, three (3) implant volumes of air will be removed from the vapor point. The flow rate for both purging and sampling shall not exceed 0.2 liters per minute. An as of yet undetermined tracer gas (sulfur hexafluoride, or helium) will be introduced into the atmosphere under the pail to assure the viability of the vapor point. If the tracer gas is detected within the

analysis, it can be assumed that the sampling point is compromised and that the air sample may have and infiltration of ambient air.

A total of twelve (12) air samples will be collected. One (1) Summa Canister will be used for each sample for analysis using the TO-15 test method, and a Category B deliverables data package will be requested. ASR will submit the samples to an NYS-ELAP certified laboratory for analysis. The test is accepted by the New York State Department of Health. All sampling canisters will have a regulator set to take a two (2) hour metered sample. ASR personnel will record all sampling information.

Quality Assurance and Quality Control measures will be taken during this air quality investigation. These measures include the proper sampling techniques, cleanliness of the equipment, proper environmental conditions, and the proper handling of data throughout the process. In addition, laboratory accession procedures will be followed including field documentation, chain of custody.

QUALITATIVE EXPOSURE ASSESSMENT

Information obtained from the site investigation will be used to assist in the development of a qualitative exposure assessment for the site. A Qualitative Exposure Assessment is conducted to evaluate the potential human health risks produced by residual contaminants on the subject property. The following list of items will be included in the assessment report.

Site Description
Surrounding Land Use
Sensitive Receptor Survey
Site History
Subsurface Conditions
Site Geology
Site Hydrogeology
Source Area Removal
Subsurface Soil Quality
Groundwater Quality
Chemicals of Concern
Exposure Point Concentrations
Exposure Pathways
Site Specific Minimum Clean-up Goals
Method Assumptions

COMMUNITY AIR MONITORING PLAN

A Community Air Monitoring Plan (CAMP) requires real time monitoring for VOCs and particulates, i.e. contaminated dust, at a designated downwind location from a work site. Air samples are collected while activities such as drilling are in progress at a contaminated Site. A CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for downwind receptors from airborne contaminant releases as a direct result of investigator and remedial work. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shut down. Additionally, a CAMP helps to assure that work activities are not spreading contamination off-site through the air.

The ambient air at any sensitive receptors in the vicinity of the site will be monitored. Examples of such situations include curbs of a busy urban street, a public park, or a school or residence.

VOCs will be monitored with at the downwind perimeter of the immediate work area on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be conducted using a photo-ionization detector. The equipment will be calibrated daily. The equipment will be capable of calculating 15 minute running average concentrations, which will be compared to levels specified below:

If the ambient air concentration of total VOCs 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 must be temporarily halted and monitoring continued. If the total VOC level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

If total VOC 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 must be halted, the source of the vapor identifies, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume, provided that the total VOC level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor, which ever is less – but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

If the VOC level is above 25 ppm at the perimeter of the work area, activities must be shut down.

All 15-minute readings must be recorded and be available for State (DEC or DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of particulate matter 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. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than the background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided the downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and proved no visible dust is migrating from the work area.

If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater then 150 mcg/m3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentrations to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

QUALITY ASSURANCE/QUALITY CONTROL PLAN (QA/QC)

QA/QC procedures will be followed to provide guidelines for accuracy, precision, sensitivity, completeness, and comparability associated with the sampling and analysis activities to be

conducted as part of this investigation. Field QA/QC procedures will be used to ensure that the groundwater and soil samples collected are representative of the actual conditions. Field QA/QC will include the following procedures:

- ***The calibration of field equipment***. All field analytical equipment used including PIDs will be calibrated on a daily basis
- ***The use of trip and collection field blank samples***. Trip blanks will be prepared by the ELAP-certified laboratory with de-ionized laboratory grade water and one (1) blank will accompany all sample shipments to the laboratory. The water used will be from the same source as that used for the laboratory method blank. The trip blank will be handled and transported in the same manner as the samples collected which it will accompany. Trip blanks will be analyzed for VOCs to identify the presence of cross-contamination as a result of sample shipment, e.g. contaminated from the air, shipping containers, or from other items coming into contact with the sample bottles.
  The field blank will be collected by pouring de-ionized laboratory grade water over the decontaminated split spoons used to collect soil samples and gathering this water into appropriate sample containers preserved in the same manner as other aqueous matrix samples. The water used for the field blank will be from the same source as that used for the laboratory method blank. The field blank will be analyzed in accordance with ASP 95-1, to determine whether the field sampling equipment is cross-contaminating samples. Duplicate and MS/MSD samples shall be collected on every 10 outside samples and on every 3 inside samples.
- ***The use of dedicated and disposable field sampling equipment***. Dedicated HDPE tubing and check valves will be used in all monitoring wells to eliminate the possibility of cross-contamination during groundwater sampling activities. Disposable sampling equipment including latex gloves and disposable bailers will be used to prevent cross-contamination between samples. Split-spoons used to collect soil samples during monitoring well installation as well as field screening equipment will be decontaminated after each sample by washing them with laboratory grade Alconox detergent and de-ionized water, and thoroughly air-drying equipment. All drilling equipment that contacts contaminated material will be decontaminated according to NYSDEC Protocol.
- ***The proper sample handling and preservation*** For each of the analytical parameters analyzed, a sufficient sample volume will be collected to allow the specified analytical method to be performed according to protocol, and to provide sufficient sample for reanalysis if necessary. Because plasticizers and other organic compounds inherent in plastic containers may contaminate samples requiring organic analysis, these samples will be collected in glass containers. Appropriate sample preservation techniques, including cold temperature storage at 4° C, will be utilized to ensure that the analytical parameters in the samples analyzed by the laboratory have not changed from the time the sample was collected in the field. Samples will be analyzed prior to the respective holding time for each of the analytical parameters to ensure the integrity of the analytical results.
- ***The proper sample chain of custody documentation.*** Sample handling in the field will conform to appropriate sample custody procedures. Field custody procedures include proper sample identification, chain-of-custody forms, and packaging and shipping procedures. Sample labels will be attached to all sampling bottles before field activities begin to ensure proper sample identification. Each label will identify the site and sample location. Proposed sampling locations are indicated in the Sample Location Plan. Actual sampling locations, if different than proposed, will be marked on the Sample Location Plan which will be revised accordingly. Each cooler will be lined with two (2) 6-mil thick plastic bags. Styrofoam or bubble wrap will be used to absorb shock and prevent breakage of sample containers. VOC vials will be packaged inside a plastic "Ziplock" bag prior to placement inside the cooler. Ice or ice packs will be placed in between the plastic bags for sample preservation purposes. After each sample is collected and appropriately

identified, the following information will be entered into the chain-of-custody form: 1) site name and address; 2) sampler(s)' name(s) and signature(s); 3) names and signatures of persons involved in the chain of possession of samples; 4) sample number; 5) number of containers; 6) sample location; 7) date and time of collection; 8) type of sample, sample matrix and analyses requested; 9) preservation used (if any); and 10) any pertinent field data collected (pH, temperature, conductivity, DO). The sampler will sign and date the "Relinquished" blank space prior to removing one (1) copy of the custody form and sealing the remaining copies of the form in a Ziplock plastic bag taped to the underside of the sample cooler lid. After sample containers are sufficiently packed and the chain-of-custody form completed, the 6-mil plastic bags will be sealed around the samples by twisting the top and securely taping the bag closed to prevent leakage. A sample custody seal will be placed around the neck of the bag which will include the signature of the project manager, and/or his designee, and the date. The sample cooler will be sealed with tape prior to delivery or shipment to the laboratory. Additionally, sample custody seals will be placed around the cooler lid to detect unauthorized tampering with samples following collection and prior to the time of analysis. The seals will be attached in such a way that it will be necessary to break them in order to open the container. Seals will be affixed at the time of sample packaging and will include the signature of the project manager and/or his designee and the date.

- ***The completion of report logs***. The following project logs will be completed during the course of this investigation: 1) field logs; 2) boring logs; 3) monitoring well development purging and sampling data logs; and 4) monitoring well installation details. A field log will be completed on a daily basis which will describe all field activities including: 1) project number, name, manager, and address; 2) date; 3) weather; 4) attendees on-site and associated affiliations; 5) description of field activities; and 6) all pertinent sample collection information including sample identification numbers, description of samples, location of sampling points, number of samples taken, method of sample collection and any factors that may affect its quality, time of sample collection, name of collector, and field screening results. A boring log will be completed for each boring advanced and each monitoring well drilled. The following information will be included on each boring log: 1) project number, name, manager, and location; 2) date; 3) drilling company and method used; 4) boring number; 5) total and water table depths; and 6) all pertinent soil sample information including sample number, interval, depth, amount recovered, color, composition, percent moisture, visual and olfactory observations of contamination, and field screening readings.
- ***The completion of monitoring well logs.*** A monitoring well development, purging and sampling data log will be completed following development, purging and sampling of each monitoring well. For both development as well as purging and sampling activities, the following information will be recorded: 1) project number, name, manager, and location; 2) monitoring well number; 3) well casing diameter and stick-up height; 4) depth of well from top of well and roadbox casings; 5) date; 6) time; and 7) water analyzer used. Additionally, for development activities, the following information will be recorded: 1) distance from top of well casing to water and free product; 2) height of water column; 3) volume factor and well volume, and 4) volume of groundwater removed during development. Also, for purging and sampling activities, the following information will be recorded: 1) distance from top of well casing to water and free product; and 2) the pH, temperature, conductivity, and dissolved oxygen content associated with the number of well volumes removed. A monitoring well installation detail will be completed for each new monitoring well installed. The following information will be recorded on each detail: 1) project name, number, and manager; 2) monitoring well number; 3) driller; 4) date installed; 5) top of casing, ground surface, well point, and bottom of boring elevations, 6) borehole diameter, 7) type of well cover/cap, 8) type of protective casing and collar; 9)

type of well casing and screen; 10) diameter of casing and screen; 11) type of backfill material; 12) type of joint; 13) type of impermeable backfill; 14) type of screen packing; and 15) screen slot size.

CITIZEN PATICIPATION ACTIVITIES

CP activities that have already occurred and are planned during the investigation and remediation of the site under the BCP are identified in chart below: Identification of Citizen Participation Activities. These activities also are identified in the flowchart of the Citizen Participation Plan already filed in the document repository. NYSDEC will ensure that these CP activities are conducted, with appropriate assistance from the Applicant.

All CP activities are conducted to provide the public with significant information about site findings and planned remedial activities, and some activities announce comment periods and request public input about important draft documents such as the Remedial Work Plan.

All written materials developed for the public will be reviewed and approved by NYSDEC for clarity and accuracy before they are distributed.

NYSDEC will determine if the site poses a significant threat to public health and/or the environment. If NYSDEC determines that the site is a "significant threat," a qualifying community group may apply for a Technical Assistance Grant (TAG). The purpose of a TAG is to provide funds to the qualifying community group to obtain independent technical assistance. This assistance helps the TAG recipient to interpret and understand existing environmental information about the nature and extent of contamination related to the site and the development/implementation of a remedy.

An eligible community group must certify that its membership represents the interests of the community affected by the site, and that its members' health, economic well-being or enjoyment of the environment may be affected by a release or threatened release of contamination at the eligible site.

For more information about the TAG Program and the availability of TAGs, go online at: **www.dec.state.ny.us/website/der/guidance/tag/** .

Identification of Citizen Participation Activities

Required Citizen Participation (CP) Activities	CP Activities Occur at this Point
Application Process:	
• Prepare Brownfield site contact list (BSCL) • Establish document repositories	At time of preparation of application to participate in BCP.
• Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day comment period	When NYSDEC determines that BCP application is complete. The 30-day comment period begins on date of publication of notice in ENB. End date of comment period is as stated in ENB notice. Therefore, ENB notice, newspaper notice and notice to the BSCL

	should be provided to the public at the same time.
After Execution of Brownfield Site Cleanup Agreement:	
• Prepare citizen participation (CP) plan	Draft CP Plan must be submitted within 20 days of entering Brownfield Site Cleanup Agreement. CP Plan must be approved by NYSDEC before distribution.
After Remedial Investigation (RI) Work Plan Received:	
• Mail fact sheet to BSCL about proposed RI activities and announcing 30-day public comment period on draft RI Work Plan	Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with application, comment periods will be combined and public notice will include fact sheet. 30-day comment period begins/ends as per dates identified in fact sheet.
After RI Completion:	
• Mail fact sheet to BSCL describing results of RI	Before NYSDEC approves RI Report.
After Remedial Work Plan (RWP) Received:	
• Mail fact sheet to BSCL about proposed RWP and announcing 45-day comment period • Public meeting by NYSDEC about proposed RWP (if requested by affected community or at discretion of NYSDEC project manager in consultation with other NYSDEC staff as appropriate)	Before NYSDEC approves RWP. 45-day comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 45-day comment period.
After Approval of RWP:	
• Mail fact sheet to BSCL summarizing upcoming remedial construction	Before the start of remedial construction.
After Remedial Action Completed:	
• Mail fact sheet to BSCL announcing that remedial construction has been completed • Mail fact sheet to BSCL announcing issuance of Certificate of Completion (COC)	At the time NYSDEC approves Final Engineering Report. These two fact sheets should be combined when possible if there is not a delay in issuance of the COC.

REPORTING AND SCHEDULING

Information collected during the site investigation will be submitted in report form following the guidelines in Section 3.10 of the Draft Brownfield Cleanup Program Guide and Section 3.14 of DER 10 and will include the following:

A. Include the remedial investigation data, detailed engineering and geological interpretations of the data, and conclusions appropriate to the site;

B. Compare the site data to Standards, Criteria and Guidelines used by the Department and/or the soil cleanup levels developed for the BCP or pursuant to the Guidance for Tracks 3 and 4;

C. Characterize the nature and extent of contamination which has migrated from the site;

D. Include an on and off-site exposure assessment, described in 4.6 of this guidance; and,

E. Include a recommendation as to whether the Applicant believes that remediation is required:

After the approval of this RIWP, work will commence at the site approximately 10 days after notification is made to NYSDEC, or as scheduling allows. This work is tentatively scheduled for July and possibly August of 2007.

The following is a tentative project schedule for the investigation of the subject site.

July 16, 2007: ASR will call for utility mark outs, private mark outs, and file for sidewalk opening permits with the DOT.

July 23-28 2007: ASR mobilizes the site to monitor up-gradient air quality and to set up the down gradient air monitoring tripod. ASR will establish the safety zones in and around the drill rig advancing monitoring wells ASR-4, ASR-5, ASR-6, ASR-7, ASR-8, ASR-9, ASR-10 and ASR-11.SB-1 and SB-2.

July 30-31 2007: A geoprobe will direct push the eleven (11) soil vapor points.

August 1-3, 2007: Groundwater wells will be purged and sampled. Soil vapor points will be sampled as per the New York State Health Department protocol.

August 27-31, 2007: Prepare & Submit an Investigation Summary Report for the subject site.