# FINAL
# REMEDIAL ACTION WORK PLAN

for

CLINTON TERRACE SHOPPING CENTER
74-82 CROTON AVENUE
OSSINING, NEW YORK
BCP NO.: C360110

February 12, 2009
FINAL 8-24-10

Prepared by:
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, New York 12533
(845) 897-2188 office
(845) 897-2189 fax
jadeenv@alum.rpi.edu

# PROJECT SUMMARY

The Clinton Terrace Shopping Center located at the corner of Croton and Clinton Avenues in the Village of Ossining, Westchester County, New York consists of an approximately 1.0 acre lot improved with an approximately 10,000 square foot single story multi-unit retail structure with a flat roof and partial basement. The building was constructed in two phases in 1955 and 1961 on land previously improved with two 2-story single-family homes w/ light retail. After the second phase was constructed in 1961 the southern most unit #74 of the addition was tenanted by Westinghouse Coin Operated Dry Cleaners, which opened its doors on January 6, 1962.

In addition to regular laundry, the new cleaners operated ten self-service dry cleaners at the northwest corner of the unit. The machines were reportedly set inside a spill containment basin that collected any solvent that was spilled and directed it to a floor drain plumbed to an emergency overflow tank buried beneath the floor under the equipment. Reportedly, the cleaner was still in operation as of 1974 (it is presumed dry cleaning operations continued during this entire period). In 1975, a permit was issued by the Village of Ossining to split the unit in half (i.e. #74 and #74a) and a cheese shop and a medicine shop reoccupied the two halves. The dry cleaning equipment was removed as part of the unit turn over. Years later the cheese shop closed and the medicine shop expanded into the vacated space. It is reported that the Medicine Shop is a parent to the existing pharmacy that currently occupies this space.

A recently completed subsurface investigation has delineated a plume of perchloroethylene beneath the Site that appears to originate just below the concrete slab, in the northwest corner of the pharmacy, where the equipment was reportedly located. The plume is suspected to be the result of one or more spills of PCE during routine operations that escaped the intended control of the secondary containment plumbing that reportedly drained spilled solvent to the overflow tank. Again noting that the equipment reportedly had spill containment that would collect spills, including PCE and direct it to the emergency overflow tank. No records were available to confirm whether the former overflow tank and associated piping were ever removed, as such, it is possible the overflow tank and piping remain below grade. Recent testing indicates the solvent has migrated down through the overburden beneath the building and has reached the upper glacial aquifer approximately 10’ below the slab. Having reached the aquifer, the solvent is now slowly dissolving into groundwater and being carried by the groundwater with its natural flow in a north and northwest direction beneath the parking lot. The testing indicates little if any solvent exists in groundwater leaving the site and that the bulk of the soil contamination remains beneath the building protected from leaching forces associated with stormwater infiltration.

The contamination is impeding plans for commercial redevelopment of the site. As such, the current owner anticipates implementing corrective actions to mitigate the contaminant condition under the states Brownsfield Program, and free up the site for planned redevelopment (pending contract for sale includes demolition of existing structure, remediation of subsurface and construction of a new retail building). The following *“Proposed Remedial Action Plan”* details concepts to mitigate the contaminant condition consistent with state Standards, Criteria and Guidance (SCGs). The purpose of this Plan is to provide insight to the NYSDEC on existing site conditions and provide concepts to mitigate such conditions. As such, this Plan should be considered a work in progress, subject to additions and/or revisions as new data is made available and input is collected from regulatory agencies and other interested parties. This document as well as all supporting documents will remain on file at the Ossining Public Library for public access at least as long as the term of the project.

# TABLE OF CONTENTS

# TABLE OF CONTENTS – CONT.

APPENDICES

# 1. PROJECT BACKGROUND

The purpose of this *"Remedial Action Work Plan"* (RAWP) is to establish a conceptual basis for the mitigation of a relatively small plume of chlorinated hydrocarbons at the Clinton Terrace Shopping Center located at 74-84 Croton Avenue in the Village of Ossining, Westchester County, New York. As more fully described below, it is expected that the plume is the result of the past use of the shopping center by a dry cleaners.

The objective of this RAWP is conforming to officially promulgated standards and criteria that are directly applicable, or that are relevant and appropriate via the states Brownfield program. It also takes into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter referred to as SCGs.

The solvent plume appears to be the result of a failure in a containment system that reportedly collected spilled solvents in the dry cleaning area and drained it to an emergency overflow tank buried beneath the floor in the northwest corner of the unit currently occupied by a pharmacy. Over 62 subsurface soil samples were taken as part of the remedial investigation. Only 4 samples exceeded 1 ppm, with the highest at 3.6 ppm and clear indication of concentrations decreasing with depth. The sampling data suggest that there were one or more spills of PCE during routine operations that escaped the secondary containment and overflow tank connected to the floor drains within the containment. The contamination having reached the upper glacial aquifer is now being carried with normal groundwater flow north and northwesterly beneath the asphalt paved parking lot.

This RAWP identifies and details the alternative remediation strategy that meets planned redevelopment time and budget constraints. Implementation of this proposed plan is subject to review, authorization, oversight and input by the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health as part of the states Brownsfield Program. The remediation plan recommended herein presumes that the property is sold and the existing buildings are demolished for the purposes of new construction. If the existing building is not demolished, the remedial plan will be revised to provide for in-situ treatment in lieu of excavation and disposal. A detailed evaluation of several remedial options considered during the course of this plan is provided in Appendix F.

# 2. PHYSICAL DESCRIPTION OF SITE AND VICINITY

## 2.1 Site Location

The site is located along a commercial corridor in the Village of Ossining known as Clinton Terrace. Specifically, the site is located at the northeast corner of the intersection of Croton Ave with Clinton Avenue, approximately 600 yards northeast of Croton Avenues intersection with US Route 9. Please refer to the site location map depicted on the site plan attached as Appendix A.

## 2.2 Site Description

The site consists of an irregularly shaped, level, about one-acre lot improved with a single story masonry building with a partial basement. The building is divided into six units two of which are vacant. The four occupied units are tenanted by a Chinese restaurant, a laundry (no dry cleaning), a stationary and a pharmacy. The original tenant of the pharmacy located in the southern most end of the building, was a laundry that had self-service dry cleaning machines.

The building faces Croton Avenue set back on the site and the area between the building and Croton Avenue is paved for parking. The parking lot provides vehicle egress to both Clinton and Croton Avenue, as well as a rear exit that accesses an adjacent shopping center to the northeast. Building utilities including gas and electric, which access the site from the southeast, most corner of the site from Clinton Avenue. Water and sewer services including stormwater traverse the parking lot and reach the municipal network along the west side of the site, beneath Croton Avenue.

## 2.3 Adjacent Concerns / Operations Beyond Current Borders

The area surrounding the Site consists of an aging mixture of residential and commercial development. Adjacent north are both single-family residential homes and commercial retail development. South across Clinton Avenue is office and retail development beyond which is a large apartment complex. Adjacent east and up gradient is a single-family residential development. Finally, west and down gradient across Croton Avenue is retail and office development fronting Croton Avenue and single-family residential development beyond.

Extensive research conducted as part of this project identified a total of four historical dry cleaning operations in the immediate vicinity of the Site, all four of which have discontinued operations. Site characterization suggests that none of the former adjacent dry cleaning operations have contributed to on-site contaminant conditions.

In addition to dry cleaning operations, a Valvoline Express Lube located adjacent south of the site across Clinton Avenue was originally a gas station built in the 1950s. Regulatory data indicates spills having been reported at this facility, however, all reported spills have since been addressed to the satisfaction of the NYSDEC. Site characterization also suggests that this adjacent historical concern has not contributed to on-site conditions.

# 2. PHYSICAL DESCRIPTION OF SITE AND VICINITY – CONT.

## 2.4 Soil Conditions

Soil across the site consists of glacial till typical of the area. Soil thickness range from about one foot at the south east corner of the site where bedrock rises with the associated hillside, to more than 40’ below grade in the northwest corner of the site.

A 2-3 foot layer of fine, silty rock flour was identified covering bedrock where encountered. The fine material is anticipated to be acting somewhat as a confining layer impeding communication between the unconfined and confined zones. Additionally, a meadow mat was encountered at approximately 14’ below grade somewhat centered in the Site, which is underlain by gray mottled pond silt/clayey material. The meadow mat indicates significant filling likely occurred to reach the current grade. When exactly the filling had occurred (preresidential development in the 1800s or precommercial development in the 1950s) is unknown. However, soil sampling indicates the fill material was consistent with existing site soils and is suspected to have originated from on-site or closely nearby. It is expected that this meadow mat formation is an additional aquitard protecting against the free vertical migration of liquids between the upper glacial and underlying bedrock aquifers.

The subsurface investigation indicates that the original grade of the site was very choppy with steep slopes and possible rock out croppings and ledges. A significant amount of cutting and filling had occurred over the past 100 or more years to put the site in its current configuration. Aside from trace remnants of previous developments in the form of wood and brick in shallow soils, subsurface investigations indicate only soil was used in the process of grading the site into its current configuration.

A follow-up bedrock aquifer investigation revealed rock is layered and interbedded with fine silty loam with sand to a depth of 55’ below grade at which point competent bedrock was finally encountered.

## 2.5 Surface Hydrology/Hydrogeology

No surface water exists on-site. Sing Sing creek is the only surface hydrology in the area located approximately 800 feet north of the site and at significant distance lower in elevation as it travels northwest of the Site. Based on the change in elevation between the hillside east of the Site, groundwater beneath the site and the surface elevation of the creek, it is predicted that the creek is gaining flow as a result of groundwater infiltration.

Groundwater is approximately 10’ below grade at the southeast up gradient corner of the site and drops to about 12’ below grade at the northwest down gradient corner of the site for an overall water table gradient of 4’ across the site. Groundwater studies conducted as part of this project revealed the bulk of groundwater flow beneath the site is north/northwest towards Sing Sing Creek, generally following surface grade.

Stormwater collected on the roof drains to a culvert buried behind the building, which is connected to a larger culvert, which traverses the north side of the building, then west where it connects to the municipal system beneath the intersection of Clinton and Croton Avenue. Multiple catch basins along the culvert collect stormwater from the alley and parking lot and direct it to the culvert and the municipal network. Based on these conditions, stormwater infiltration does not appear to be a concern for this site.

### 2.6 Bedrock Geology

State geology maps provided by the New York State Department of Education indicates that Ossining is located at the northern end of a bedrock formation referred to as the Manhattan Prong and is comprised primarily of highly glaciated schist, gneiss and marble. At the southeast corner of the site, bedrock is at grade and rises to almost roof level behind the south exterior wall near the sidewalk along Clinton Avenue. Borings in the ally behind the southeast corner of the building identified bedrock 2-3 feet below grade. Borings SB-21 and SB-22, located approximately 15’ north of the south exterior wall inside the building, encountered rock at 4-6’ bsg. Borings SB-4, 5 and 6 located approximately 20’ north of the south exterior wall in the parking lot in front of the pharmacy, encountered bedrock between 7-12’ bsg. At WP-11, centrally located between the north and south property lines, the boring was terminated at over 30’ bsg, indicating that the bedrock dips significantly to the north, possibly vertically in areas.

Bedrock dips steeply from southeast to northwest, rising from well over 40’ below grade at the northwest corner of the Site, up above the water table and reaching grade at the southeast most corner of the site, the highest elevation of the Site at or near the roof elevation of the building. As noted above bedrock is highly fractured and discontinuous, competent bedrock was not encountered until 55’ beneath below grade in the parking lot in front of the former dry cleaners. See map.

### 2.7 Municipal Water Supply

According to the Village of Ossining, the area is serviced by municipal water, which has not been impacted by operations at the site. Two service lines enter the site from Croton Avenue to the west including a domestic supply for the building and a fire control supply split between a riser in the parking lot and a Siamese connection on the building.

# 3. SITE HISTORY / COMPLIANCE STATUS

## 3.1 Historical Operations / Suspect Concerns

### 3.1.1 Historical Property Uses

*3.1.1.1 First Known Uses*

Historical data provided in Sanborn Fire Insurance Maps, city directories and in historical files available at the Ossining Historical Society indicate the Site was developed with two, two-story single family homes which were also used for light retail purposes including a Shakespeare fishing reel dealer and a baker. Historical data could not confirm whether these were on-site operations or the off-site occupations of the home occupants. Either way these past uses are not suspect concerns.

*3.1.1.2 First Commercial Development*

Research indicated in about 1955, Wabil, Inc purchased both homes and in 1955/56 razed the dwellings and built a portion of the existing structure <u>currently</u> occupied by the Chinese restaurant and laundry matt. Grestedes Market occupied this small original structure. In 1961, Wabil constructed an addition off the south side of the building, which more than doubled the size of the structure, adding four additional units.

*3.1.1.3 On-site Historical Hazardous Material Uses*

Westinghouse Coin Operated Dry Cleaning ("WCODC") opened in the southern most of the four new units on January 6, 1962. The records indicated that in 1974 the cleaners was named Greenberg Laundry and that in 1975 permits were issued to divide the unit in half and reoccupy the new spaces with a cheese shop and a medicine shop. The building files indicate the laundry closed at that time and the cheese shop took the space. The medicine shop is suspected to be the original of the currently existing pharmacy. Sometime in the 1980s the pharmacy expanded back into the cheese shop space reoccupying the entire space previously occupied by Westinghouse.

Documents reviewed indicate WCODC operated 10 dry cleaning machines in the northwest corner of the unit which were set in a spill containment dike designed to contain any spilled solvent and direct it to a 550-gallon emergency overflow tank buried beneath the floor under the cleaning equipment. No records exist regarding disposal practices of the former dry cleaners. It is possible the tank remains below grade.

# 3. SITE HISTORY / COMPLIANCE STATUS – CONT.

#### *3.1.1.4 Suspect Improper Disposal Practices*

Because information on the disposal/management practices during the operation of the dry cleaners was not available, all possible scenarios for impact as a result of dry cleaning activities were addressed. Based on this premise, the following possible scenarios were considered and the Areas of Concern as outlined in the RI/FS were identified.

- Back door disposal or exterior storage;
- Discharges to sewer;
- Accidental spills at loading/delivery points;
- Accidental discharges to stormwater catch basins;
- Accidental interior spills seeping into interior floors and into underlying soils;

Please refer to the Remedial Investigation/Feasibility Study appended hereto for a detailed evaluation of the site and the results of testing in each AOC. Based on the results of this remedial investigation, the one source area appears to be related to one or more spills in the area of the dry cleaning machinery, bypassing or escaping the secondary containment and impacting the soil under the concrete slab.

## 3.2 Investigation / Characterization Results

### 3.2.1 Research Completed

As part of typical predevelopment due diligence, the following environmental assessments and investigations were conducted:

- Phase I Environmental Site Assessment
  prep by Bureau Veritas, July 15, 2008
- Limited Subsurface Investigation
  prep by Bureau Veritas, Sept. 3, 2008
- Additional Subsurface Investigation
  prep by Bureau Veritas, Sept. 24, 2008

The results of Bureau Veritas work revealed the past use of the site as a dry cleaners and the presence of perchloroethylene in vapor form beneath the slab and dissolved in soil and groundwater beneath the site. The conditions impeded redevelopment plans.

As a proposed solution, the owner chose to apply for acceptance into the New York State Brownsfield Program and clean the site to the satisfaction of the state regulatory agencies and allow for site redevelopment. As part of the program, the following was completed:

- Remedial Investigation Work /Health and Safety Plan
  prep by Jade Environmental, Inc., Nov. 15, 2008
- Remedial Investigation / Feasibility Study
  prep by Jade Environmental, Inc., January 5, 2009(rev. 8/10)

The results of this additional work characterized the nature of the Site and its impact by the spilled solvent. These documents, as required by the Brownsfield Program, are attached hereto and are the basis for this RAWP.

### 3.2.2 Contaminant Delineation / Site Characterization Results

As noted above, extensive soil and groundwater testing was conducted which delineated a solvent plume in soil beneath the building and in the upper glacial aquifer overlying bedrock beneath the Site. The testing results indicate that for the most part, the soil contamination plume is contained beneath the southwest corner of the building, protected from stormwater infiltration and leaching forces. The groundwater plume originates beneath the soil contamination and is now flowing with groundwater north and northwesterly beneath the parking lot. A copy of the RI/FS report, which details site characterization activities and depicts the plume in both soil and water beneath the Site appended to this report.

### 3.2.3 Buried Tanks

In addition to the solvent plume, the investigation identified at least one; possibly two abandoned buried tanks exist beneath the site.

*3.2.3.1 Petroleum Storage*

A 550-gallon fuel oil tank exists just outside the south wall of the building, between the building and sidewalk along Clinton Avenue. Testing indicates the tank is empty and the soil beneath the tank is not contaminated with fuel oil constituents. The tank is suspected to have stored fuel oil used to generate steam / hot water used by the former cleaners.

The remedial work proposed herein includes the removal of this tank and an assessment to insure no impacts to the sites subsurface. All tank work will proceed in accordance with OSHA, American Petroleum Institute and New York State Environmental Conservation guidelines. A copy of the RI/FS report attached hereto provides additional details regarding the tank and its location.

*3.2.3.2 Solvent Storage*

As noted earlier, building files indicate a 550-gallon tank was installed beneath the floor slab in the northwest corner of the pharmacy, which collected and stored solvent spilled during on-site dry cleaning operations. Because the pharmacy floor is covered with carpet, no evidence regarding the presence or absence of the tank could be found. As no data exists to verify the tank was removed, there is a possibility the tank remains below grade.

# 3. SITE HISTORY / COMPLIANCE STATUS – CONT.

Again this work plan includes the removal of this tank if it exists in accordance with OSHA and New York State Department of Environmental Conservation guidelines. Because the tank is centered in the soil plume, assessment work associated with this tanks closure will be deferred until remedial efforts are complete and be addressed as part of the post remedial assessment process proposed herein.

## 3.3 Remedial History

No remedial activities have reportedly been conducted at this site. According to the current property owner, they had no recollection or knowledge that a dry cleaning operation ever existed on-site. Historical research indicates the cleaners closed approximately 36 years ago.

## 3.4 Enforcement Status

No enforcement actions / orders on consent or others orders or requests for information have reportedly been initiated against the Site by any federal, state or local regulatory agencies. The former dry cleaners was out of operation well before the RCRA hazardous waste tracking system was fully implemented, so no closure/documentation requirements were required to address the dry cleaning operations. As noted previously, the owner will be mitigating the spilled solvent voluntarily via the Brownfield program. The Volunteer has been approved into the Brownfield program and the site issued BCP#360110.

## 3.5 Impacts to Adjacent Properties

The spilled solvents impact to soil appears to be contained beneath the southwest corner of the building. However, the solvent has reached the underlying upper glacial aquifer and is flowing with groundwater north and northwest. Testing along the northern down gradient border of the site indicates very little if any solvent has left the site.

## 3.6 Citizen Participation

The New York State Brownfield Program requires public input during the course of the project. This includes but is not limited to notifying dozens of state and local regulators and managers of the intention to begin the work under the Brownfield program as well as individuals in the neighborhood. A detailed plan that describes how local citizens will be informed of the project is provided in Appendix C.

# 4. SUMMARY OF REMEDIATION GOALS

The goals of the remedial concepts discussed herein have been generally established via the remedy selection process outlined in Draft Version 6 of the New York Codes, Rules and Regulations (NYCRR), Part 375 – Environmental Remediation Programs. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous materials left at the site through the proper application of scientific and engineering principles. Specifically, the remediation goals for this site were to eliminate any soil source that could continue to contribute to groundwater contamination and reduce groundwater impacts to a level at which natural attenuation could adequately take over and complete the remedial process.

The ultimate goal of the work proposed herein is to meet these conditions and clear the site for redevelopment without exposure to future environmental liability.

# 5. PROPOSED REMEDIAL PROCEDURES

## 5.1 Soil Remediation

### 5.1.1 Building Demolition

The first stop along the critical path of this proposed work includes the removal of the building and floor slab. Proposed building demolition cannot be completed without acceptance into the Brownsfield program. Building demolition is an integral part of this project. Building demolition will be the responsibility of the developer, and therefore the demolition will not commence until after the closing.

The building demolition will be done to the extent possible leaving the existing floor slab intact. It is essential that the soils beneath the floor slab are not impacted by stormwater infiltration which will accelerate leaching of solvent stored in the vadoze zone and accelerate degradation of the underlying upper glacial aquifer. As such, removal of the floor slab should be conducted by the environmental contractor under the direction of the Field Engineer (here forth "Engineer") and occur concurrently with soil excavation. The Engineer will pay particular attention to weather forecasts and make every attempt to schedule the removal of the floor and underlying soil during a continuous period with no rain. If not possible as result of schedule restraints, interim procedures should be provided to protect the soil plume from stormwater as directed by the Engineer. A demolition permit will be obtained from the village prior to demolition. A survey will be done to identify any asbestos containing building materials. If present, asbestos containing materials will be removed by a licensed contractor prior to demolition.

### 5.1.2 Dewatering

In order to remove contaminated groundwater for treatment, a dewatering system will be implemented that adequately depresses the upper aquifer which will also facilitate advanced soil excavation for removal and disposal and permit for the construction of the aeration / vapor extraction system without the need for horizontal well drilling. The details associated with the exact dewatering methods will be the responsibility of the contractor and approved by the Engineer. Effluent generated must be treated in a manner satisfying POTW requirements as permitted.

### 5.1.3 Soil Excavation / Stockpiling

*5.1.3.1 Excavation*

Soil excavation will continue in general accordance with the excavation limit lines provided on the Work Plan Map in appendix A. The Engineer will direct specific excavation activities. The Engineer will at minimum use field screening measures in the form of VOC emission quantification using a photo-ionization detector or approved other.

The screening device used must be calibrated for optimum ionization of halogen range organics. NYSDEC representatives will be present during the excavation. The extent of excavation will be determined in the field based upon the results of a screening device and confirmed by the NYSDEC representative.

#### *5.1.3.2 Stockpiling*

Excavated soils will be stockpiled on a material that will eliminate the potential for wastes contained within the soil to migrate into underlying clean soils supporting the stockpile and at minimum consist of two layers of 6 mil polyethylene sheeting. At the end of every workday the stockpile will be covered with at least one layer of material that will adequately

- prevent VOCs from entering the atmosphere;
- prevent the soil from contacting rainwater;
- prevent erosion:

Liners will be anchored adequately to prevent blow off. The liner will be removed only to facilitate stockpiling, sampling or loading and be replaced at the discretion of the Engineer if damaged or otherwise inadequate.

Stockpiles will not be permitted to remain on-site longer than allowable by the NYSDEC Case Manager and under no circumstance longer than 90 days. Stockpiles will be established in a manner to prevent sloughing or any other types of failure that may represent safety concern to site workers. Stockpiling and excavation work will be in accordance with OSHA guidelines, based on the type of material encountered.

Soil removed from the saturated zone or that appears saturated must be set aside in the excavation in a manner that allows draining in the contaminated zone and subject to collection by the dewatering system for treatment prior to being stock piled. Once dewatered, the material can be stockpiled appropriately.

### 5.1.4 Waste Characterization / Disposal

Excavated soil is anticipated to be disposed of as an industrial waste, as opposed to a hazardous waste. However, characterization will determine the ultimate disposition of excavated soils. Hazardous waste characterization will be conducted in accordance with federal, state and local requirements and in accordance with receiving facility operating permit requirements.

### 5.1.5 Post Remedial Assessment

A Post Remedial Assessment will be conducted to confirm field screening results and document all soils contaminated above applicable SCGs with the potential to further leach solvents into the underlying aquifer has been removed for disposal. The assessment procedures will follow all applicable federal and state assessment requirements and at minimum include the following:

#### *5.1.5.1 Soil Sampling*

At the direction of the Field Engineer, excavation will be discontinued and post remedial sampling conducted to confirm no impacted soil with the potential to impact groundwater remains on-site prior to backfill. Post remedial sampling techniques will be conducted in accordance with all applicable federal and state sampling guidelines and at minimum include the collection of soil samples from the excavation walls every 15’ along the perimeter of the excavation. The soil samples will be collected by first removing oxidized soils from the excavation wall to a minimum depth of 6”. Equipment used to facilitate soil sample collection (i.e. augers, trowels, etc.) will be deconned between samples.

Donning new disposable nitril gloves, soil samples will be collected from the formation and transferred directly into lab supplied soil jar without headspace in a manner that minimize volatilization loss. Each soil sample will be sealed tightly, labeled accordingly and stored in a cooler with ice during transport to New York State Department of Health licensed chemistry lab for analysis under proper chain of custody procedures. All analysis will be conducted in accordance with applicable sample holding times.

#### *5.1.5.2 Soil Analysis*

Soil sample analysis will be conducted by a NYSDOH licensed laboratory in accordance with all applicable federal and state analytical requirements and at minimum include volatile analysis by gas chromatography and mass spectrometry following specifications provided in EPA Publication SW-846 “*Test Methods for Evaluation Solid Waste, Physical/Chemical Methods”*. The specific range of analytes searched must include organics typical of perchloroethylene and its break down components. The analysis must follow QA/QC procedures outlined by the analytical procedure and the lab is to provide a report format that provides sufficient data necessary for data validation as needed and at minimum include a level B report format.

# 5. PROPOSED REMEDIAL PROCEDURES – CONT.

*5.1.5.3 Groundwater Sampling*

Because the bottom of the excavation will likely contain groundwater, water sampling at the discretion of the Field Engineer will include the collection of water samples either directly from the dewatering system or directly from the excavation via dedicated bailer. The groundwater sample will be transferred directly into lab supplied sample jars preserved for volatile organic analysis, in a manner that minimizes volatile loss, labeled accordingly and stored in a cooler with ice for further preservation during overnight transport to the lab for analysis under proper chain of custody procedures. Analysis and reporting will be conducted as specified in section 5.1.5.2 above.

5.1.6 Backfilling

Backfilling will provide for the optimal free flow of liquids and gases through the backfill with minimal disturbance or gradient and include the use of geosynthetics as need to prevent particulate inundation. The backfill will include the installation of aeration and vapor extraction lines to facilitate additional remediation to the formation, if needed. Also during this process, if needed, inoculation of the formation to enhance natural attenuation of residual contaminants escaping removal activities will also be conducted.

*5.1.6.1 Filtration*

After excavation and post remedial sampling is complete, at the direction of the Engineer the bottom and walls of the excavation will be lined with an acceptable geotextile fabric that will allow the pass through of liquids and gases, but minimize the free flow of sediment with the potential to clog the backfill. The Engineer must approve all filtration fabric prior to placement.

*5.1.6.2 Backfill Application*

Backfill will include placing, grading, inoculation and compacting approved material with permeability that meets or exceeds the permeability, and maintains the bearing strength of ¾" crushed stone at 95% compaction. Inoculants will be applied during the back filling process and with each lift in accordance with the manufacturer specifications. Backfill must meet all NYSDEC requirements and be approved by the Engineer and continue to grade.

*5.1.6.3 Aeration/Vapor Extraction Plumbing*

See 5.2 below

*5.1.6.4 Inoculation / Enhanced Natural Attenuation*

See 5.2 below

# 5. PROPOSED REMEDIAL PROCEDURES – CONT.

## 5.2 Groundwater Remediation

Groundwater remediation activities will include pump and treat conducted during excavation dewatering to advance excavation and disposal below the water table to the extent feasible as well as inoculation with compounds that will enhance the natural attenuation of residual chlorinated solvents not physically removed. Finally, if needed, the aeration and vacuum extraction lines will connected to appropriate blowers/compressors to accelerate natural attenuation. As such, the inoculants must be compatible with an aerated formation.

### 5.2.1 Pump and treat

Under permit with the publicly owned treatment works, groundwater pumped during excavation will be treated and discharged to the municipal sewer owned and operated by the Westchester County Department of Environmental Facilities. Discharge rates and quality must meet all POTW requirements. At minimum pre-discharge treatment will include aeration and sedimentation to remove volatiles and settle out particulates both regulated by the POTW. Additional treatment will be provided as needed to meet POTW requirements.

### 5.2.2 Plumbing

After the first lift is complete, but no less than 5’ below the surface of the mean water table, permeated aeration lines will be embedded in the grave and plumbed to a location in the existing basement, pending blower connection. The air lines rate of diffusion will allow aeration throughout the aeration line and maintain a minimum 5-psi at the furthest end of the line using a 5 hp compressor running at 80 psi. Aeration line ends will be sealed pending connection. Connection will be based on post remedial assessment results.

Again, when backfilling reaches a depth of five feet above the average elevation of the water table, aeration lines will be embedded in the gravel to facilitate the application of negative pressures through the backfill to remove VOCs diffusing up into the backfill naturally or mechanically via the aeration system. Again the lines will be capped and one end of each line installed will discontinue in the existing basement with the aeration lines to facilitate future equipment connections. Aeration/vapor extraction implementation will be at the discretion of the Engineer and NYSDEC Case Manager assigned to oversee the site.

### 5.2.3 Enhanced Attenuation / Inoculation

In addition to aeration/vapor extraction, prior to and during the backfilling process, the excavation will be inoculated with compounds designed to enhance the natural degradation of organics including chlorinated organics. The inoculants must perform in an oxygen rich environment in the event the NYSDEC orders the aeration/vapor extraction system be placed on-line.

### 5.2.4 Operations/Maintenance/Monitoring

The results of the post remedial assessment will be used to assess whether the vapor extraction system being put on-line is warranted. If so, the system will be pulsed and timed to run predominantly at night when power costs are down and pedestrian traffic is low allowing the formation to stabilize during the day. Vacuum discharge will be monitored with a PID to insure removal is occurring and make sure air discharges don't exceed applicable standards and criteria. Sampling and mitigation of air discharges will be completed as needed to meet applicable requirements.

### 5.2.5 Waste Characterization / Laboratory Analysis

Groundwater effluent will be characterized in accordance with receiving facility requirements including but not limited to permit requirements of the soil disposal facility and the Westchester County Department of Environmental Facilities sewage treatment system. A NYSDOH licensed chemistry laboratory will conduct all laboratory analysis.

### 5.2.6 Post Remedial Groundwater Monitoring

This remedial process includes a groundwater monitoring program that at minimum includes the purging and collection of groundwater from existing wells on a quarterly basis for the amount if time needed to confirm or deny the remedial efforts were successful. Well sampling will be conducted in accordance with federal and state guidelines and in accordance with good engineering practices.

The samples are to be analyzed at minimum for chlorinated solvents including perchloroethylene and its breakdown components as detailed in section 5.1.5. Annual monitoring reports will include detailed evaluation of contaminant concentrations and provide comparisons to previous data with a detailed evaluation of degradation with time.

### 5.2.7 Soil Vapor Intrusion Investigation

The RI/FS included an investigation as to whether any contamination has migrated beneath adjacent structures and is now vaporizing into building interiors and resulting in inadvertent exposure to building occupants. A detailed report regarding the results of this investigation is provided in the Soil Vapor Intrusion Investigation Report provided in appendix E.

# 5. PROPOSED REMEDIAL PROCEDURES – CONT.

## 5.3 Waste Management

Contact with generated wastes will be minimized by the use of proper protective equipment and clothing as directed by the Engineer or his designated Site Safety Officer. All sampling equipment will be new and dedicated per sample, or decontaminated between sampling in accordance with applicable guidelines.

Waste transporters will be permitted under NYCRR Part 364 to haul regulated wastes typical of this type of work. Waste treatment, storage and/or disposal facilities retained in the completion of this remediation project will be permitted to accept the received waste in accordance with the waste charachterization results. Waste piles will be encapsulated in liners preventing the release of contaminants to the atmosphere or supporting foundation materials. The Engineer will be responsible to monitor down wind conditions for volatile emissions that may be being emitting from waste piles or waste generation areas during periods that the waste is being disturbed. Direct encapsulation will be applied as needed to minimize volatilization resulting in air discharges exceeding applicable discharge regulations.

## 5.4 Engineering Controls

In addition to vapor extraction, building plans for future development will include the installation of a vapor barrier comprised of a liner designed to eliminate the upward migration of vapors into future building spaces. The exact type of liner is to be determined, but at minimum should include a double layer of 6 mil polyethylene sheeting overlapped a minimum of 12" and sealed with an approved sealant.

## 5.5 Health and Safety

Health and Safety procedures outlined in the Work, Health & Safety Plan provided in the Remedial Investigation Plan on file at the Ossining Public Library. Similar procedures will be applied during the work proposed herein in addition to the following:

### 5.5.1 Ambient Air Monitoring

Ambient air monitoring will be directed by the Field Engineer during all excavation and loading activities and at minimum include quantification of particulate and VOC vapor emissions at the down wind most position of the site in accordance with recently approved DER-10 procedures. If ambient air measurements detect VOC vapors exceeding 50 ppm or some other concentration approved by the NYSDEC Case Manager at any perimeter test location, the field engineer will direct the crew to encapsulate stock piles and/or the excavation until VOC emissions drop back below acceptable levels. Similar procedures will account for excess dust emissions. Water will be applied to the site as needed to control dust and protect site occupants as well as surrounding developments. The Field Engineer may direct such interim procedures at his discretion.

5.5.2 Site Access

The general contractor/owner will secure the site with barricades meeting applicable federal, state and local requirements. The barricading should adequately prevent the free flow of pedestrians or unauthorized vehicles onto the site, however, allow for the free flow of pedestrian traffic around the Site via existing perimeter site sidewalks and roadways around the site.

The fencing/barricades will include at minimum two swing gates that provide for ingress and egress by tractor-trailers with no need for reverse motion. At minimum, one entire tractor-trailer must be able to occupy the site without restriction to perimeter roads, sidewalks or preventing gate closure. Barricades will be in conformance with OSHA requirements.

5.5.3 Safe Slopes / Excavation Entry

Excavation practices will be in compliance with all federal, state and local regulations and strictly comply with excavation procedures 29 CFR 1926 *"Safety and Health Regulations for Construction"* Subpart P – "Excavations".

5.5.4 Utility Clearance

Prior to any excavation work on the site, utility clearance will be required in accordance with New York State regulations provided in NYCRR Code Rule 753 *"Protection of Underground Utilities"*.

### 5.6 Remedial Alternative Analysis

The Brownsfield Program requires that various remedial strategies be evaluated. A detailed analysis of two remedial alternatives, one which meets Track 1 remedial objective and one that meets Track 4 remedial objectives, is provided in Appendix D. As noted, the remedial option selected and detailed herein includes demolition of the existing structure, excavation and disposal of contaminated soil beneath the building footprint, dewatering to remove contaminated groundwater for surface treatment and disposal and excavation in the dewatered zone to remove contaminants adhered to particles beneath the soil/water interface. It also includes aeration/vapor extraction and aquifer inoculation with compounds designed to accelerate natural attenuation, if needed.

# 6.0 REFERENCES

1. U.S. Environmental Protection Agency, Standard Operating Safety Guides, U.S. EPA, November 1984.

2. U.S. Environmental Protection Agency, Superfund Public Health Evaluation Manual, EPA/540/1-86/060, January 1986.

3. 29 CFR 1910 Hazardous Waste Operations and Emergency Response, March 8, 1989.

4. 29 CFR 1926 Safety and health Regulations for Construction

5. NIOSH, Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, DHHS/NIOSH-85-115, October 1985.

6. NIOSH Criteria for Recommended Practice – "Working in Confined Space"

7. ACGIH, Threshold Limit Values and Biological Exposure Indices.

8. DER-10 "Technical Guidance for Site Investigation and remediation" NYSDEC Division of Environmental Remediation – May 2010

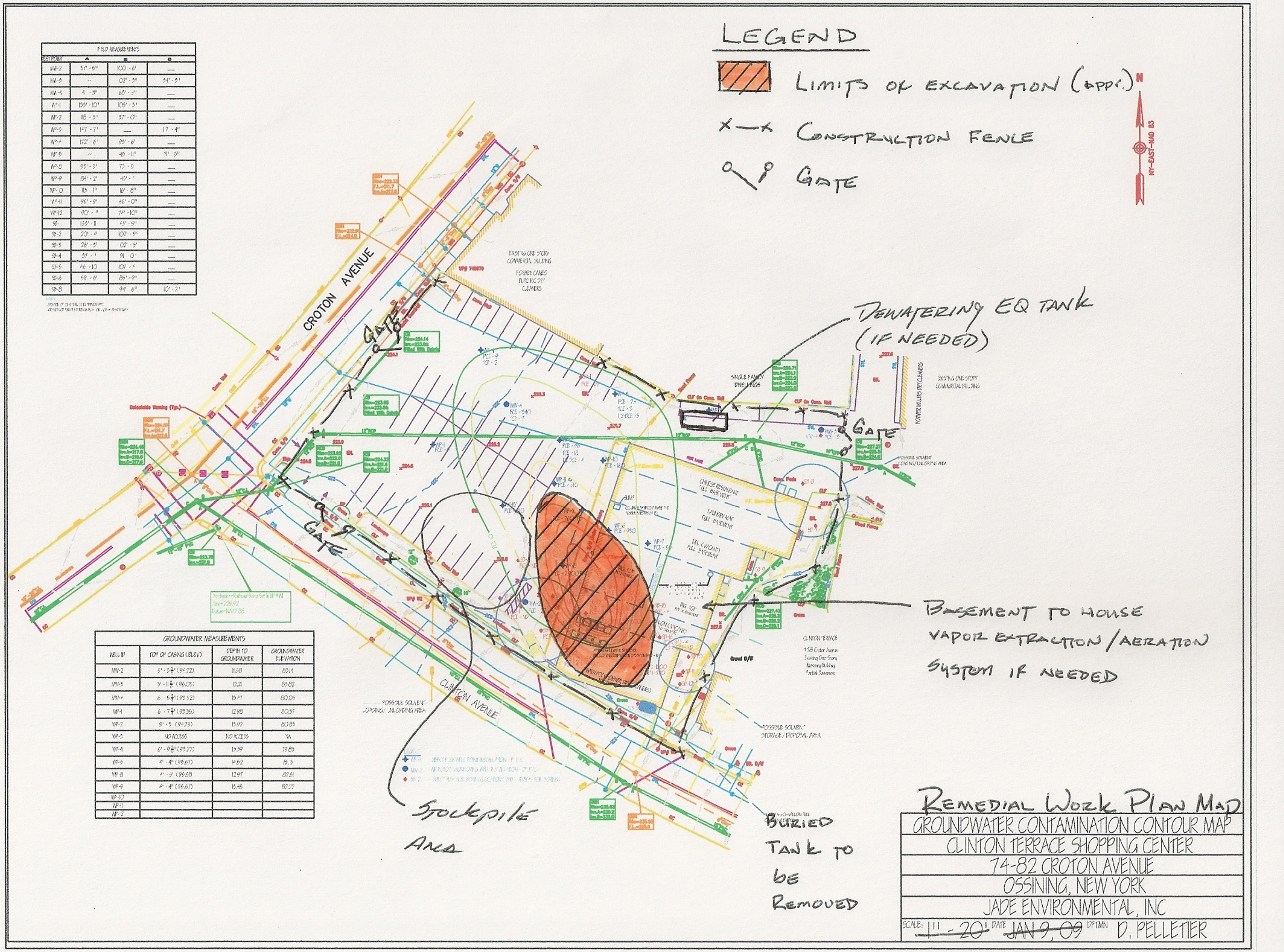
9. *"Draft Brownfield Cleanup Program Guide"* NYSDEC Division of Environmental Remediation - May 2004

10. NYCRR Code Rule 753 *"Protection of Underground Utilities*

11. NYCRR Part 375 *"Environmental Remediation Programs"* subparts 375-1, 375-4 and 375-6, December 2006.

# Appendix A

# Remedial Work Plan Map



## LEGEND

| | |
|---|---|
| 🟧 | Limits of excavation (appr.) |
| x—x | Construction Fence |
| o—o | Gate |

| FIELD MEASUREMENTS | | | |
|---|---|---|---|
| TEST POINT | ▲ | ■ | ● |
| MW-2 | 51' - 5" | 100 - 6' | — |
| MW-3 | -- | 02' - 5" | 54' - 5' |
| MW-4 | 4 - 5" | 68' - 5" | — |
| WP-1 | 135' - 10' | 105' - 3' | — |
| WP-2 | 118 - 5' | 37' - 0" | — |
| WP-3 | 147 - 7' | — | 17 - 4" |
| WP-4 | 172' - 6' | 95' - 6' | — |
| WP-5 | -- | 45 - 11" | 71' - 5" |
| WP-8 | 55' - 5' | 75 - 5 | — |
| WP-9 | 84' - 2" | 45' - 1 | — |
| WP-10 | 115 1" | 16' - 8" | — |
| WP-11 | 96' - 9" | 46' - 0" | — |
| WP-12 | 90' - 11 | 74' - 10" | — |
| SB- | 155' - 11 | 45' - 5" | — |
| SB-2 | 20' - 4' | 109' - 5" | — |
| SB-3 | 26' - 3" | 02' - 5' | — |
| SB-4 | 37 - 1 | 91 - 0' | — |
| SB-5 | 46 - 10 | 107 - 4 | — |
| SB-6 | 59 - 6' | 85' - 9" | — |
| SB-8 | | 94' 6" | 10' - 2' |

| GROUNDWATER MEASUREMENTS | | | |
|---|---|---|---|
| WELL ID | TOP OF CASING (ELEV) | DEPTH TO GROUNDWATER | GROUNDWATER ELEVATION |
| MW-2 | 5' - 3$\frac{3}{8}$' (94.72) | 11.58 | 83.14 |
| MW-3 | 5' - 11$\frac{5}{8}$' (96.05) | 12.21 | 83.82 |
| MW-4 | 6 - 5$\frac{3}{4}$' (95.32) | 15.47 | 80.05 |
| WP-1 | 6 - 7$\frac{3}{4}$' (95.36) | 12.98 | 80.37 |
| WP-2 | 5' - 3 (94.75) | 13.92 | 80.85 |
| WP-3 | NO ACCESS | NO ACCESS | NA |
| WP-4 | 6' - 9$\frac{3}{16}$" (95.77) | 15.59 | 79.85 |
| WP-5 | 4' - 4" (95.67) | 14.52 | 81.5 |
| WP-8 | 4' - 5' (95.58 | 12.97 | 82.61 |
| WP-9 | 4' - 4" (95.67) | 13.45 | 82.22 |
| WP-10 | | | |
| WP-11 | | | |
| WP-12 | | | |

## Remedial Work Plan Map

GROUNDWATER CONTAMINATION CONTOUR MAP
CLINTON TERRACE SHOPPING CENTER
74-82 CROTON AVENUE
OSSINING, NEW YORK
JADE ENVIRONMENTAL, INC
SCALE: ~~1" - 20'~~ DATE ~~JAN 9, 09~~ DFTMN D. PELLETIER

3-15-09

# Appendix B

# Remedial Investigation / Feasibility Study

# REMEDIAL INVESTIGATION / FEASIBILITY STUDY

FOR THE PROPERTY KNOWN AS

## CLINTON TERRACE SHOPPING CENTER

74-82 CROTON AVENUE, OSSINING, NEW YORK 10562-4201
SECTION 89.16 BLOCK 7 LOT 1
BCP NO: 360110

| | |
|---|---|
| Owner/Volunteer: | Mehlich Associates<br>8 Depot Square,<br>Tuckahoe, NY 10707<br>(914) 793-5050 office<br>(914) 793-5088 fax |
| Consultant: | Jade Environmental, Inc.<br>59 Circle Drive<br>Hopewell Junction, New York 12533<br>(845) 897-2188 Office<br>(845) 897-2189 fax<br>jadeenv@alum.rpi.edu |
| Regulatory Authority: | NYCDEC  Region III<br>Division of Environmental Remediation<br>Remedial Bureau C (Region III)<br>625 Broadway, 11th floor<br>Albany, New York 12233-7012 |

JANUARY 5, 2009

LAST REVISED 8/10

# TABLE OF CONTENTS

## TABLES

## APPENDICES

# 1.0 INTRODUCTION

## 1.1 Purpose / Objective

This draft Remedial Investigation / Feasibility Study report details the subsurface investigation activities recently completed at the Clinton Terrace Shopping Center. The purpose of this RI/FS was to collect soil and groundwater samples from the site and analyze them as needed to appropriately characterize subsurface conditions, focusing specifically on the source and distribution of previously identified chemical contaminants. The objective of this assessment is to assemble and organize the information needed to select, design and plan a expeditious and cost-effective method of remediation that satisfies regulatory requirements and is protective of human health and the environment.

## 1.2 Limitations

This investigation was limited to the property known as Clinton Terrace Shopping Center, 74-82 Croton Avenue in the Village of Ossining, Westchester County, New York hereafter referred to as the Site. The Village of Ossining Tax Assessors Office identifies the property as Section 89.16, Block 7, Lot 1. The site survey provided in Appendix A delineates the boundaries of the Site, as well as site improvements and some immediately surrounding developments.

This investigation identified a densely consolidated silt layer covering much of the underlying bedrock. No testing was conducted through this formation, in order to avoid compromising the aquitard and risking the creation of routes for the vertical migration of contaminants from the upper aquifer to lower formations. Further discussion regarding project limitations with the New York State Department of Environmental Conservation (NYSDEC) is pending.

## 1.3 Regulatory Oversight

This investigation is a key part of a comprehensive process initiated by the owner, Mehlich Associates, to reduce, and potentially eliminate, the liability associated with the presence of uncontained hazardous materials identified at the Site. The owner has stipulated that the mitigation process be documented in detail and all activities conducted with the observation and input of the NYSDEC. State regulations indicate that the most appropriate method of obtaining this oversight is to use the Brownfield Cleanup Program (BCP) which, in addition to oversight, offers numerous other benefits. Therefore, the owner is applying to participate in the BCP with the submission of this report.

All sample collection, management and analytical procedures conducted during the course of this investigation adhered to state guidelines outlined in Draft DER-10, "*Technical Guidance for Site Investigation and Remediation",* dated December 2002. Additional standards and guidance used in the completion of this investigation are referenced in Section 9. Where guidelines diverged, those presented in DER-10 were followed.

# 1.0 INTRODUCTION – CONT.

## 1.4 Project Contacts

**Primary Project Participants**

Owner/Volunteer:
Mehlich Associates
Mr. Robert W. Mehlich
8 Depot Square, Tuckahoe, NY 10707
(914) 793-5050 office
(914) 793-5088 fax

Project Engineer:
David A. Pelletier, P. E.
Jade Environmental, Inc.
59 Circle Drive, Hopewell Junction, NY 12533
(845) 897-2188 office
(845) 897-2189 fax
(914) 882-6074 cell

**Other Site Personnel**

Utility Clearance:
Dig Safely New York (UFPO)
(800) 962-7962

**Subcontractors**

Geophysical Survey:
Consumer Mark-outs,
Deer Park, New York
(631) 680-0500

Laboratory Analysis:
York Analytical Laboratories, Inc.
120 Research Drive
Stratford, CT 06615
(203) 325-1371

Liquid Waste T/D:
Enviro-Waste
279 Route 6
Mahopac, New York 10541
(845) 279-0263

Drill Rig/Equipment:
CTS
East Fishkill, New York
(914) 882-6074

# 2.0 SITE DESCRIPTION, HISTORY AND AREAS OF CONCERN

## 2.1 Site Location / Physical Description

### *2.1.1 Site Location / Improvements*

The focus of this investigation is an irregularly shaped commercial retail parcel of land, approximately 1 acre in size, known as the Clinton Terrace Shopping Center and located at 74-82 Croton Avenue in the Village of Ossining, Westchester County, New York. The Site is improved with an approximately 10,000 SF single story commercial structure with a partial basement, flat roof and surrounding macadam paved parking /driving surfaces. The Site and vicinity developments are supplied with water and waste water services by the Village of Ossining and the County of Westchester, respectively. There are no domestic, production or other supply wells known to exist in the vicinity of the Site.

### *2.1.2 Area Topography / Hydrology / Development*

The Site is relatively flat with frontage along Croton Avenue to the west and Clinton Avenue to the south. Adjoining properties to the east are up gradient and residentially developed with one and two family dwellings. Adjoining properties north are cross gradient to the northeast and become more down gradient to the northwest and include mixed commercial and residential development. Properties to the west across Croton Avenue are largely down gradient and consist of commercial retail and office improvements beyond which, and further down gradient, is residential development in the form of one and two family dwellings. The properties south across Clinton Avenue, up gradient to the southeast and becoming cross gradient to the southwest, may be characterized as commercial development, beyond which is a large residential apartment building.

The relatively flat topography of the Site is thought to be the result of grading during development. Based on visual inspection, the development of the Site apparently included excavation into the higher elevation of the southeastern hillside, as the southern exterior wall of the building doubles as a retaining wall, holding back the hillside almost to roof grade at the south east corner Overall, the vicinity of the Site slopes downward from southeast to northwest. About 800 feet northwest and at a considerably lower elevation is a tributary of the Hudson River known as Sing Sing Creek. No other surface hydrology was identified by inspection or map reference in the area of the Site.. Please refer to the Site Survey in Appendix A for further details of site grading and area layout.

### *2.1.3 Geology / Hydrogeology*

Based on inspection, surficial deposits across the Site consist of glacial till, and fill material which appears to have originated as glacial till, likely from a nearby (possibly on-site) source. Till consists of varying components of clay, silt and sand with gravel. Based on soil inspection, it appears that some of the Site has been filled with up to as much as 14 feet of soil.

## 2.0 SITE DESCRIPTION, HISTORY AND AREAS OF CONCERN – CONT.

At boring WP-2 a suspected wetland formation was identified at 14 feet below surface grade (bsg), in the form of a meadow mat. Beneath the meadow mat is typical decomposing organic materials above an aquitard of dense gray mottled silt and clay.

State geology maps provided by the New York State Department of Education indicates that Ossining is located at the northern end of a bedrock formation referred to as the Manhattan Prong and comprised primarily of highly glaciated schist, gneiss and marble. At the southeast corner of the site, bedrock is at grade and rises to almost roof grade behind the south exterior wall near the sidewalk along Clinton Avenue. Borings in the ally behind the southeast corner of the building identified bedrock approximately 3 feet below grade. Borings SB-21 and SB-22, located approximately 15' north of the south exterior wall inside the building, encountered rock at 4-6' bsg. Borings SB-4, 5 and 6 located approximately 20' north of the south exterior wall in the parking lot in front of the pharmacy, encountered bedrock between 7-12' bsg. At WP-11, centrally located between the north and south property lines, the boring was terminated at over 30' bsg, indicating that the bedrock dips significantly to the north, possibly vertically in areas.

Groundwater is apparently below the surface of bedrock at the southeastern most corner of the Site. The saturated zone starts slightly north, at the point where the bedrock dips below 10'bsg.. The surface of this zone dips to the north and west to a depth of approximately 13' bsg near the northwest corner of the Site. Please refer to the Groundwater Contour Map provided as Appendix B for a depiction of the potentiometric surface of the upper aquifer. As can be seen on the map, groundwater beneath the site generally flows in a northwesterly direction.

### 2.2 Site History

Environmental concerns associated with the Site are the result of historical Site and surrounding property uses. Detailed historical data for the Site and surrounding properties was collected from the following documents:

- Phase I Environmental Site Assessment - prepared by Bureau Veritas, July 15, 2008
- Limited Subsurface Investigation - prepared by Bureau Veritas, September 3, 2008
- Additional Subsurface Investigation - prepared by Bureau Veritas, September 24, 2008

In addition, the following local offices were visited in order to review relevant files:

- Ossining Building Department
- Ossining Public Library
- Westchester County Public Library
- Ossining Historical Society

The information provided in the documents and agency files reviewed is summarized below.

## 2.0 SITE DESCRIPTION, HISTORY AND AREAS OF CONCERN – CONT.

#### *2.2.1 Historical Site Development*

Available data indicates that property uses prior to development into a shopping center were of no environmental concern. Available records indicate the site was formerly improved with two (2) two-story residential dwellings with typical ancillary structures (i.e. stables, sheds garages) constructed in the mid- to late 1800s. The dwelling known as 78 Croton Avenue was owned and occupied by the Jenks family, which likely used a portion of the dwelling for veterinary services based on records identifying Mr. Ralph C. Jenks as a veterinarian. The records confirm Mr. Jenks' occupation of the dwelling as far back as 1926 and indicate that Mr. Jenks sold to Wabil, Inc in 1954. Records indicate the dwelling known as 82 Croton Avenue was occupied by Fanny Gold and Sons Confectionary as of 1926, and by Leo Lubell, a retailer of Shakespeare Fishing Equipment, as of 1939. Wabil, Inc also purchased this structure in 1954 and razed both structures in 1955, preceding development of the Site as a grocery store in 1956.

#### *2.2.2 Past Uses of Existing Developments*

A building permit issued for the Site in May 1956 indicates preliminary development included a single story commercial structure to be occupied by Gristedes food market. A certificate of occupancy was issued to Gristedes on Nov 5, 1956. This original development was situated at the northern end of the current building, in the area currently occupied by a Chinese restaurant and a coin laundry. Records indicate the remaining portion of the building was added in 1960, four years later. The original plans for the addition called for a bank in the southern most unit, but later records indicate Fabril Cleaners occupied this unit and developed the Westinghouse Coin Operated Dry Cleaning Plant. Records indicate the remaining spaces of the addition were occupied by various tenants including restaurants, a cheese shop, a delicatessen, multiple salons, a stationary store and a pharmacy. Other than the dry cleaners, records do not indicate the presence of any other historical tenants of the shopping center with the potential to have impacted the Site as a result of handling hazardous materials.

### 2.3 Areas of Concern

#### *2.3.1 On-site Dry Cleaning Operations (AOC1 – AOC6)*

Available records indicate the southernmost unit of the shopping center at 74 Croton Avenue, currently occupied by a pharmacy, was permitted in 1961 to install ten dry cleaning machines in the northwest corner of the unit and opened its doors on January 6, 1962 as the Westinghouse Coin Operated Dry Cleaners and Laundromat. The records indicate the self operated dry cleaning equipment was surrounded by a containment dike fixed with a drain that collected spilled solvent and directed it to a 550 gallon emergency perchloroethylene (PCE) overflow tank buried beneath the floor slab under the equipment. Records indicate that in 1975 permits were issued to bisect the unit and reoccupy the two spaces with a medicine shop and cheese shop, units 74 and 74A respectively. The space remains fully occupied by a pharmacy at this time.

## 2.0 SITE DESCRIPTION, HISTORY AND AREAS OF CONCERN – CONT.

Neither the former dry cleaners nor the Site as a whole was identified on any Federal or State list of known or suspected hazardous materials uses or discharges. Based on available data it appears that the dry cleaners operated at the Site for no more than 12 years. No information was readily available regarding the disposition of the PCE overflow collection system when the unit was converted to regular retail use in 1975. Preliminary testing beneath the floor slab conducted by Bureau Veritas (Veritas) in September 2008 confirmed the presence of PCE in shallow soil at this location. The historic dry cleaning operation in this unit is considered the most likely source associated with the areas of concern (AOC) summarized below:

**Table 1 – Summary of Areas of Concern**

| AOC | Location | Concern |
|---|---|---|
| 1 | NW Corner of unit 74 | Spill from dry cleaning equip. or buried overflow system |
| 2 | Lot in front of pharmacy | PCE loading/unloading area |
| 3 | Lot on north side of building | PCE loading/unloading area |
| 4 | Alley behind pharmacy | Back door disposal/outdoor chemical storage |
| 5 | Sanitary sewer | Improper discharges to leaky pipe work |
| 6 | Stormwater drainage system | Discharge to catch basins / leaky pipe work |

The maps provided in Appendices C and D provide a depiction of these Areas of Concern, including catch basins and buried piping and culverts, and the borings associated with each.

### *2.3.3 Adjacent Dry Cleaning Operations (AOC7, AOC8)*

Jade's review of the available records also identified four historical dry cleaning operations in the immediate vicinity of the Site, including two directly abutting the Site. As dry cleaning operations were the focus of the investigation, the close proximity to the Site of these two adjacent facilities warranted investigation to ascertain whether they had contributed in any way to on-site conditions.

*Cameo Electric Dry Cleaners and Dryers*

According to available records, Cameo Electric Dry Cleaners and Dryers occupied the building adjacent north of the Site, known as the Tan Building, from at least 1956. According to Sanborn maps, the dry cleaners still occupied this site as of 1971, but historical data indicates the address was occupied by Don Dre Electric Corp. (appliance retailer) and Janero's Pizza as of 1973, suggesting a period of operation of at least 15 years. Available records failed to confirm on-site dry cleaning activities took place at this location, which was not listed on any Federal or State database of known or suspected hazardous waste conditions.

## 2.0 SITE DESCRIPTION, HISTORY AND AREAS OF CONCERN – CONT.

A second Cameo Cleaners establishment, located at 164 Main Street in Ossining was also operating during the same time period. It is therefore possible that this adjacent dry cleaning Unit may have been a drop-off location for the Main Street plant, or versa.

*Millers Dry Cleaners*

From 1955 until 2000, Millers Dry Cleaners occupied the west end unit of the adjacent shopping center northeast of the Site. This shopping center was also developed by Wabil, Inc in 1954, on a property formerly improved with a large single family residence occasionally referred to as ‘the Mansion’. Records indicate the shopping center was constructed for Grand Union and also included three smaller units which were occupied by NY Tel (office space), a clothing store and Miller Dry Cleaners. Records confirm Millers opened on May 5, 1955 and conducted on-site dry cleaning, remaining in operation until 2000, when the building was sold and renovated and new tenants were introduced.

Millers Dry Cleaners was listed on multiple databases, predominantly regarding its registration as a generator of hazardous waste as required by the Resource Conservation and Recovery Act (RCRA). None of the records indicate any spills or other uncontrolled discharges have been reported or investigated at this location. However, as the dry cleaners was in operation for 45 years, and given its proximity to the Site, Jade determined that testing in the northeast corner of the Site was warranted in order to rule out Millers as a potential contaminant source. Data regarding the remaining two dry cleaning facilities in the area is provided in section 2.3.5.

### *2.3.4 Additional Environmental Concerns*

Our geophysical survey of the Site confirmed the presence of a 550-gallon buried petroleum storage tank outside the south wall of the building, which most likely supplied fuel oil to the cleaners’ hot water system. A soil sample collected by Veritas at 6’-7.5’ bsg, approximately 5 feet from the tank, identified a grayed sample exhibiting low VOC emissions during field screening. However, laboratory analysis reportedly did not identify any regulated fuel oil constituents in the soil sample above method detection limits. Since the tank is empty and preliminary analysis indicates that soil beneath the tank is not impacted, Jade does not believe that further soil testing in this area is necessary at this time. However, removal of the tank in accordance with NYSDEC guidelines is warranted, in order to prevent its future use, and also to confirm by inspection that the storage system has not impacted the subsurface of the site.

### *2.3.5 Other Potential Concerns*

As noted above, in addition to the on-site dry cleaners and the two adjacent facilities, two additional dry cleaners were located in the immediate vicinity, totaling five dry cleaners on or within 50 yards of the Site. Records indicate Sause Cleaners, located at 87 Croton Avenue, across the street and 50 yards north of the Site, was operational in 1939 and again in 1950. A 1971 Sanborn map indicates that this address was occupied by a restaurant at that time. A 1980.

## 2.0 SITE DESCRIPTION, HISTORY AND AREAS OF CONCERN – CONT.

record gives the address of Sause Cleaners as 139 Croton Avenue, a significant distance north of the Site. It is therefore presumed that dry cleaning operations were moved to this location between 1950 and 1971. At this time, Sause Cleaners is not considered an AOC worthy of further investigation, due to its distance down gradient relative to the Site. Records also indicate a fifth dry cleaners, known as Uneeda Cleaners, located at 71 Croton Avenue, across the street from the Site and 50 yards south on Croton Avenue. Records confirm its presence at this location in 1939 and again in 1955, but no additional data was available. Again, this former dry cleaners is located down gradient and not considered an AOC worthy of investigation at this time.

Jade also identified another environmental concern, the Expressway Lightning Lube facility located at 72 Croton Avenue, across the street from the Site. This property was originally a single family dwelling owned by the Calem family from the 1800s until being redeveloped and opening as a Texaco gas station in 1955. This site was identified twice on the NYSDEC SPILLS database; however, both spill cases have been closed, indicating that the releases are no longer considered a threat to human health or the environment. Moreover, based on area topography, Jade predicts any contaminated groundwater originating from this former gas station would most likely flow southwest beneath Croton Avenue and away from the Site. This adjacent environmental concern is therefore not considered worthy of investigation at this time.

# 3.0 GEOPHYSICAL SURVEY

## 3.1 New York State Code Rule 753 Compliance

As required, Jade contacted the Dig Safe Hotline prior to the initiation of testing activities on October 20, 2008. The Dig Safe Company issued our request case # 10-208-078-048.

## 3.2 Magnetometry and Ground Penetrating Radar

Prior to advancing any borings, on November 3, 2008 Jade conducted a geophysical survey of the entire site in order to determine the presence of buried utilities, tanks or other remnants associated with past uses or development. Because of its occupancy, no interior survey work was conducted.

This study detected several buried utilities on-site that were not identified by the standard utility notification process, including gas and electric service lines buried in the ally. It was established that the storm water catch basin behind the building is connected to roof drains and discharges to the storm water culvert traversing the north side of the building. The survey also confirmed the presence and size of the fuel oil tank buried outside the south wall of the building.

# 4.0 FIELD ACTIVITIES

## 4.1 Interim Remedial Measures

As no major contaminant conditions (*i.e.* free phase conditions) were known to exist, no interim remedial measures were conducted as part of this project.

## 4.2 Sampling Scheme

Following compliance with NYS Code Rule 753 and completion of the geophysical survey, an AMS Powerprobe™ 5400 PRO drill rig and Geoprobe® Large Bore Sampler were mobilized. Between November 5 and December 17, 2008 a total of 34 borings were advanced across the site including 22 borings identified as SB-1 to SB-22, and 12 borings converted into 1" well points, identified as WP-1 to WP-12. The following table summarizes the advancement of these borings.

**Table 2 – Drilling Work Summary**

| Date | Equipment | Borings Advanced |
|---|---|---|
| Nov 5 | Drill Rig | SB-1, WP-1 to WP-3 |
| Nov 6 | Drill Rig | SB-2 to 8, WP 4 to WP-5 |
| Nov 19 | Geoprobe Large Bore | SB-9 to 12, WP-6 |
| Nov 20 | Geoprobe Large Bore | SB-13 to 18, WP-7 |
| Dec 3 | Drill Rig | WP-8 to WP-9 |
| Dec 15 | Geoprobe Large Bore | SB-19 to SB-22 |
| Dec 17 | Drill Rig | WP-10 to 12 |

### *4.2.1 Soil Sampling/Screening*

In areas of the Site accessible to the drill rig, soil borings were advanced by hydraulic hammer. In limited access areas, a portable breaker hammer was used. Borings advanced using the drill rig utilized a 4' Macro-core® sampler fitted with 4' acetate liners; those advanced using tha breaker hammer utilized Geoprobe® Large Bore samplers fitted with 2' acetate liners.

Upon retrieval of each soil core, the soil contained within the liners initially underwent visual inspection to identify soil types and check for staining. Each liner was then cut open and the soil samples immediately transferred to laboratory supplied soil sample jars without head space and sealed to minimize volatile loss (generally the 2-3' depth interval). The remaining portion of the core (generally 1-2' depth interval) was then transferred to a zipper seal bag, sealed and allowed time to release volatile components into the bag head space, before the bag was penetrated with the probe of a photo-ionization detector (PID) to measure volatile concentrations. Other than background humidity induced variations, no PID readings were measured in any of the samples collected except from borings SB-13 -15 and 19-21 where the odor of PCE was apparent. At SB-13 the PID readings reached 1000 mg/L.

## 4.0 FIELD ACTIVITIES – CONT.

Generally, two soil samples were collected from each boring. One shallow soil sample was taken from 2-3' bsg in search of residual contamination resulting from surface spills. A second, deeper sample was taken from approximately 9-10' bsg in search of contaminants that may have leached down through the soil formation as a result of surface spills, or been discharged from buried utilities (*i.e.* sewer, stormwater culvert). The deeper samples identifying areas were soil contamination had reached or had the potential to reach the aquifer. .

Refusal on rock was encountered at a very shallow depth at SB-17; consequently, no samples were collected from this soil boring. Additionally, because the soil plume was already fairly well defined, no soil sampling was conducted during the installation of WP-10 to WP-12. These well points were installed for the sole purpose of groundwater access in order to complete the delineation of the groundwater plume.

### *4.2.2 Well Point Installation / Groundwater Measurements*

In addition to using the three existing 2" monitoring wells installed by Veritas, this investigation included the installation of twelve (12) 1" PVC well points to facilitate the collection of representative groundwater samples from the upper aquifer for laboratory analysis. Well points WP-1 to WP-9 were installed by first advancing either a 4' Macro-core® or, in the case of interior wells WP-6 and WP-7 a 2' Geoprobe® Large Bore sampler, in order to remove overburden by continuously soil sampling to a depth of 20' bsg at exterior locations and to 12' bsg at interior locations. After sampling, the points were installed in the open bore holes.

The well points were constructed with a solid bottom point, flush threaded to a 10' length of 10-slot well screen (5' lengths at interior borings WP-6 and 7), flush threaded to solid PVC riser traversing the vadose zone to grade. At grade, the PVC riser was cut just below grade, capped with a solid slip cap and protected with a 8" aluminum manhole, concreted in-place. No filter pack was used on any of the well points. Instead, the existing formation was allowed to collapse around the well screens.

As noted above, no soil sampling was conducted during the installation of WP-10, 11 and 12. Instead, the well points were installed by first advancing a 2 ¼" solid casing fitted with a expendable point to 20' bsg, inserting the well point into the open casing in the same assembly described above and then withdrawing the casing, leaving the well and point in the formation.

After being allowed to stabilize, all wells were opened during the same event and depth to water measurements were collected using a water level indicator probe with a minimum precision of 0.01 feet. Top of casing measurements were then collected using a survey transit and location measurements were collected using standard swing tie procedures. All data, including calculated groundwater elevations, were transferred to the site survey plan and groundwater elevation contours were approximated. Analysis of these measures revealed that groundwater beneath the site is flowing north and northwesterly beneath the site, as depicted in the Groundwater Contour Map provided in Appendix B.

# 4.0 FIELD ACTIVITIES – CONT.

### *4.2.3 Well Point Development/Sampling*

All newly installed well points and the three existing 2" wells were developed with dedicated bailers. In some cases, well points were purged dry and required time to recharge before development could continue. After development, well points were allowed to stabilize for one to two weeks before sampling, which again was initiated by purging several well volumes before samples were collected. Purge water was stored in drums pending disposal.

For the record, the initial analysis of water samples collected from WP-8 and WP-9 generated questionable results both in terms of detection limits and PCE concentrations. To verify the accuracy of this data, when Jade returned to the site to carry out initial sampling of well points10-12, a second round of sampling was conducted at these well points. Sampling was conducted after first redeveloping the wells using high rate pumping and surging with a double diaphragm pump and dedicated ¾" polyethylene lines.

A minimum of 15 gallons of development water was removed from both well points 8 and 9, and a minimum of 10 gallons was removed from each of well points 10-12, an amount equivalent to dozens of well volumes. In order to meet project deadlines, groundwater was collected after purging using a dedicated bailer from all five well points on the following day. Laboratory analysis of this second round of sampling confirmed that the initial data collected regarding WP-8 and WP-9 had been erroneous. Although the initial sampling data is provided herein, it was excluded from the final evaluation process.

## 4.3 QA/QC Procedures

Standard QA/QC procedures adopted during sampling included, but were not limited to, the wearing of nitrile gloves during all sampling activities and using new, disposable and dedicated sampling devices for each soil and groundwater sample. All subterranean tooling was decontaminated between borings using an Alconox® scrub and then rinsed twice using rinse water from a tested source.

Al samples were transferred directly from samplers into laboratory supplied and preserved sample jars without headspace and with minimal contact with the atmosphere to minimize volatilization. All samples were labeled immediately upon collection and stored in a cooler during overnight shipment to the laboratory under proper chain of custody.

Samples were delivered by overnight courier service to a New York State Department of Health licensed chemistry laboratory, Environmental Laboratory Approval Program (ELAP) certified in the analysis of volatile organic compounds (VOCs) and Contract Laboratory Program (CLP) certified to prepare Level B analytical formats. Because the constituents of concern are known, the use of Data Usability Summary Reports is being deferred until post-remedial sampling and analysis is conducted. In addition, since the constituents of concern are known and because screening was limited to head space analysis using a PID, no duplicate sampling or tentatively identified compound searches were conducted.

# 5.0 SUBSURFACE CONDITIONS

## 5.1 Lithology

During direct push sampling, boring logs were prepared detailing subsurface conditions including soil types and descriptions, soil screening results, recovery rates, depths to saturation and/or bedrock and the presence of any indications of contamination such as soil staining or odors. Boring logs are provided in Appendix K as a permanent record of this process.

Overall, the lithologic evaluation indicated that prior to its development, the site exhibited a moderate to steep slope from southeast to northwest. Specifically, borings indicate that the southeast portion of the site was elevated and possibly exposed rock face. The central portion of the site was originally a small wetland, based on meadow mat being encountered in boring WP-2. This has largely been eliminated by filling of the wet areas with as much as 14 feet of fill material, and by construction of a retaining wall at the southeastern corner of the site, which doubles as the south exterior wall of the shopping center building. Of note a short retaining wall separates the Site from the north adjacent property which is approximately 4-5' lower in elevation.

Our soil investigation indicates the fill material used to grade the site consists primarily of a loamy matrix of soil ranging in particle size from silt to medium sands with trace gravel typical of glacial till, the predominant overburden in the area. Underlying the meadow mat is a dense mottled silt clay layer with poor permeability which is likely retarding the vertical flow of groundwater. Grayed silts directly beneath the meadow mat indicate anaerobic degradation of organic material typical of wetland formations. Along the south border of the site, bedrock is shallow and soil overlying the rock is relatively sandy with trace silts and gravel. No borings were advanced through the silty layer covering bedrock in order to preserve the integrity of the aquitard..

## *5.2* Aquifer Characterization

Groundwater across the site has been measured to flow in a generally northwesterly direction, and is located 10' bsg at the southeast corner where bedrock rises up towards grade, dropping to over 12' bsg along the northwest corner of the Site. The groundwater map provided in Appendix B depicts the approximate elevation gradients of the potentiometric surface of the upper aquifer.

# 6.0 CHEMICAL ANALYSIS

## 6.1 Sample Management

All samples were collected in phase-appropriate laboratory supplied and preserved sample jars with zero head space, labeled, packed in a cooler with ice and transported for analysis under proper chain of custody to a New York State Department of Health licensed, ELAP accredited, chemical laboratory.

Under proper chain of custody, Jade ordered the analysis of all samples for the list of chlorinated hydrocarbons provided in USEPA analytical method 8010, save for the groundwater sample collected from WP-1, which was analyzed for a broad range of hydrocarbons using USEPA analytical method 8260. The purpose of the extended hydrocarbon analysis of this sample was to assess whether groundwater on-site had been impacted by the former Texaco gas station south of the site across Clinton Avenue.

## 6.2 Quality Assurance

To ensure that the analytical data generated was both reproducible and verifiable, Jade followed the quality assurance criteria outlined in DER-10. Quality assurance measures used during the course of this investigation included, but were not limited to, the following:

- All subsurface equipment was decontaminated between borings by being scrubbed with an Alconox® wash and rinsed twice with separate clean rinse water basins from attested source.
- Environmental media was preserved as required by the analytical method and all samples remained on ice from the time of collection until reaching the laboratory.
- Sample analysis was conducted by a laboratory licensed to analyze soil and groundwater for chlorinated solvents in accordance with USEPA Publication SW-846, *Test methods for Evaluating Solid Waste,* Third edition, update IIF, dated January 1995.
- The method detection limit of the analytical method used met the lowest Standards, Criteria and Guidance (SCG) values applicable, except when sample matrix clean-up was required for proper compound identification or quantification.
- Analysis of environmental media was conducted within appropriate holding times based on detection method requirements. In addition, level B deliverable packages were ordered.

## 6.3 Standards, Criteria and Guidance (SCG)

The data collected during the course of this investigation was compared to the Standards, Criteria and Guidance provided in DER-10, the Brownfield Cleanup Program Guide and NYCRR Part 375.

Since this investigation is focused on detecting accurate levels of synthetic compounds in the environment, specifically the chlorinated solvent PCE and its degradation components, no specific background sampling was conducted. Should background sampling be required, such sampling will be conducted in accordance with the soil sampling specifications detailed above in section 4.3.

## 6.0 CHEMICAL ANALYSIS – CONT.

### 6.4 Soil Analysis Results

The table below summarizes the results of the laboratory analysis of our soil samples for PCE and its breakdown components. Please refer to the laboratory reports provided as Appendices F-I for complete details including, but not limited to, dilution rates, resulting detection levels and artifacts. Refer to Appendix L for full soil characterization report required by Brownfield.

**Table 3 – Soil Analysis Summary**

| Boring ID (Sample Depth) | Contaminant Concentration (µg/kg) | |
|---|---|---|
| | PCE | TCE |
| SB-1 (6') | <11 | <11 |
| SB-1 (11') | <12 | <12 |
| SB-2 (3') | <11 (3J) | <11 |
| SB-2 (7') | <12 | <12 |
| SB-3 (3') | <12 | <12 |
| SB-3 (7') | <12 | <12 |
| SB-4 (3') | **36** | <11 |
| SB-4 (12') | <11 | <11 |
| SB-5 (3') | <11 | <11 |
| SB-5 (11') | <11 | <11 |
| SB-6 (3') | <12 (4J) | <12 |
| SB-6 (12') | <11 | <11 |
| SB-7 (3') | <11 | <11 |
| SB-7 (9') | <11 | <11 |
| SB-8 (3') | <11 (9J) | <11 |
| SB-8 (8') | <11 (9J) | <11 |
| SB-9 (3') | **69** | <11 |
| SB-9 (11') | **15** | <11 |
| SB-10 (3') | <12 (5J) | <12 |
| SB-11 (3') | <12 (2.4J) | <12 |
| SB-12 (3') | <12 (9J) | <12 |
| SB-13 (5') | **36,000** | <3000 |
| SB-13 (9.5') | **5,000** | <600 |
| SB-14 (5') | **30,000** | <3000 |
| SB-14 (10') | **16** | <10 |
| SB-15 (5') | **12,000** | <1,200 |
| SB-15 (9.5) | <10 (3J) | <10 |
| SB-16 (5') | <11 (4J) | <11 |
| SB-16 (10') | <11 | <11 |
| SB-18 (3') | <11 | <11 |
| SB-19 (2') | **270** | <11 |
| SB-19 (8') | **110** | <11 |
| SB-20 (2') | **410** | <11 |
| SB-20 (8') | **17** | <11 |
| SB-21 (2') | **1,300** | **150** |
| SB-21 (6') | **770** | **13** |
| SB-22 (2') | **840** | <27 |
| SB-22 (4') | **350** | <11 |
| WP-1 (6') | <11 | <11 |
| WP-1 (11') | <11 | <11 |
| WP-2 (3') | <11 | <11 |
| WP-2 (13') | <12 | <12 |
| WP-3 (3') | <11 | <11 |
| WP-3 (12') | <12 | <12 |
| WP-4 (3') | <12 | <12 |
| WP-4 (13') | <11 | <11 |
| WP-5 (3') | <11 | <11 |
| WP-5 (13') | <11 | <11 |
| WP-6 (1-2') | <11 | <11 |
| WP-6 (8') | **45** | <11 |
| WP-7 (3') | <11 | <11 |
| WP-7 (6') | <12 | <12 |
| WP-8 (3') | <10 | <10 |
| WP-8 (10') | <10 | <10 |
| WP-9 (3') | <10 | <10 |

Notes:

1. <11 indicates reportable detection limit of 11 µg/kg.
2. Concentrations in parenthesis are estimates, since they are below the reportable detection limit.
3. Bolded whole numbers represent constituent concentrations above the reportable detection limit.
4. Concentrations in red indicate PCE concentrations exceeding the state recommended clean-up objective of 1,400 µg/kg for PCE.
5. As only PCE and TCE were detected in the samples, no other compounds are listed the table; please refer to the laboratory reports in Appendices F-I for the full list of analytes.
6. Methylene chloride detected in samples as reported in the laboratory reports are consistent with laboratory equipment decontamination and are not representative of actual soil concentrations.

# 6.0 CHEMICAL ANALYSIS – CONT.

The results of our soil sampling confirmed the presence of PCE in soils at the Site. However, only the contamination detected in the samples taken from the area beneath the northwest corner of the pharmacy are sufficiently concentrated to be considered a source capable of impacting the underlying aquifer. This area extends in a northerly direction beneath the interior partition and includes shallow soils beneath the southwest corner of the abandoned salon adjacent north of the pharmacy. The highest concentration of 36 ppm was measured just north of the partition in the salon about 5' from the front wall of the building.

Evaluation of the laboratory data also confirms that the heaviest contamination is retained just below the floor slab in this area, and that contaminant concentrations decrease substantially with depth. This is most likely the result of the contamination not having come into contact with rainwater, which would have rapidly leached the contaminant and resulted in a much greater impact on the underlying aquifer. As such, it is critically important to ensure that, when the building is demolished, water is not introduced to the subsurface in this area either from precipitation following removal of the structure, or as a result of dust control activities used during the demolition process.

With regard to the residual levels of PCE and the breakdown component trichloroethylene (TCE) detected in other areas of the site, the concentrations are for the most part well below the recommended clean-up objective and have limited potential to threaten the underlying aquifer, human health or other aspects of the environment.

Please refer to the soil contamination delineation maps for a complete depiction of the contamination gradients both in shallow soils just below the slab, and in deeper soils just over the saturated zone, provided as Appendix C and Appendix D respectively.

## 6.5 Groundwater Analysis Results

Groundwater samples were analyzed for the range of chlorinated solvents listed in USEPA analytical method 8010. The analysis indicates the presence of PCE, and in a few samples TCE, dissolved in the upper aquifer. The groundwater contamination plume originates beneath the northwest corner of the pharmacy and has migrated north beneath the vacant salon, Big Top Stationary and as far as the vacant delicatessen before moving mostly west and beneath the parking lot.

The laboratory analysis confirms that any concentrations of dissolved PCE detected at the most down gradient property line of the Site are at or near the standard. The potential threat to human health or the environment can therefore be considered minimal, as the neighborhood is provided potable water by the municipality and no sensitive environmental receptors exist between the Site and Sing Sing Creek, more than 1/8 of a mile away. These findings suggest that further groundwater investigation off-site is not warranted.

Please refer to the groundwater contamination concentration gradient map in Appendix E for a complete depiction of the plume. A summary of the groundwater contamination compared to applicable SCGs is provided below.

## 6.0 CHEMICAL ANALYSIS – CONT.

### Table 4 – Groundwater Analysis Summary

| Boring ID (Sample Depth) | Contaminant Concentration (µg/L) | | |
|---|---|---|---|
| | PCE | TCE | DCE |
| WP-1 | <5 | <5 | <5 |
| WP-2 | **96** | **18** | <5 (4J) |
| WP-3 | **25** | <5 (3J) | <5 (3J) |
| WP-4 | **9** | <5 (2J) | <5 |
| WP-5 | <5 (2J) | <5 | <5 |
| WP-6 | **930** | <25 | <25 |
| WP-7 | **53** | <5 | <5 |
| WP-8 | **(800) 2,900** | (<50) <250 | (<50) <250 |
| WP-9 | **(7300) 760** | (<5) <50 | (<5) <50 |
| WP-10 | **160** | <5 | <5 |
| WP-11 | **510** | <25 | <25 |
| WP-12 | **310** | <10 | <10 |
| SB-18 (aq) | <5 (4J) | <5 | <5 |
| MW-2 | **22** | <5 | <5 |
| MW-3 | <5 (3J) | <5 | <5 |
| MW-4 | **340** | <25 (7J) | <25 |
| Deli Sump | **9** | <5 | <5 |

Notes:

1. Bolded concentrations indicate constituent concentrations exceeding the state standard of 5 µg/L.
2. Cells shaded yellow indicate levels within an order of magnitude of the standard.
3. Cells shaded orange indicate levels between one and two orders of magnitude of the standard.
4. Cells shaded red indicate levels two orders of magnitude or more over the standard.
5. Cells shaded green indicate laboratory method detection limits too high to ascertain compliance.
6. Concentrations in parentheses for WP-8 and WP-9 indicate data rejected because of questionable accuracy.
7. Remaining concentrations in parenthesis throughout the table with J qualifier indicate estimated concentrations of compound detected below the reportable limit.

# 7.0 FINDINGS & RECOMMENDATIONS

The findings of this investigation are as follows:

## 7.1 AOC7 and AOC8 –Former Abutting Dry Cleaning Facilities

Jade concludes that neither of the former abutting dry cleaning facilities, the former Millers Dry Cleaners to the northeast or the former Cameo Cleaners located due north at the Tan Building, have impacted the Site. Moreover, this investigation has demonstrated that both of these properties are effectively down gradient of the Site and any contamination that may exist at either one would migrate away from the Site, should it have reached the underlying aquifer.

## 7.2 AOC1 to AOC6 – Former On-site Dry Cleaning Operations

Our investigation has revealed that housekeeping by the former on-site dry cleaning operations has not had a significant impact on the site. Based on the results of the sampling carried out at the Site, all but one of the areas of concern associated with the historical on-site dry cleaning operation have been eliminated. However, the investigation has clearly defined a source of PCE contamination in soil, centered at the former location of the dry cleaning machines in the northwest corner of the unit now occupied by a pharmacy.

As detailed in the report, an emergency overflow system was reportedly buried beneath the floor slab under the dry cleaning equipment, which collected any spilled solvent and directed it to a storage tank. Based on the delineation of the source in the northwest corner of the unit, it is expected that the subsurface contamination is the result of one or more spills in the area of the dry cleaning equipment, indicating that the emergency overflow system did not function perfectly. However the sampling results suggest that it was successful in capturing the majority of spilled solvents. From over 62 soil samples analyzed only 4 samples, specifically SP-21 (2’), SP13 (5’ and 9.8’), SP-14 (5’), exceeded 1.0 mg/kg with the highest level at 36 mg/kg.

The concentrations decrease with depth suggesting that the spill impacted the surficial soils and migrated downward. Because the sail was covered by a concrete slab and not exposed to rainwater. The contamination has been very slow to migrate; no significant quantities of contamination have left the property. Moreover, because the area is serviced with a municipal water supply and there are no sensitive receptors in the vicinity of the Site, the contamination is not anticipated to represent a immediate threat to human health or the environment. However, because applicable SCGs have been exceeded, remediation of the contamination is warranted.

## 7.3 Recommendations

Based on the above findings, Jade recommends that contaminated soil be excavated from both the unsaturated and saturated zones, and that the excavation process should include dewatering the excavation and treating and disposing of the effluent. The formation should then be inoculated with oxidizing compound or a biological agent to speed the natural attenuation of any residual contamination missed during the physical removal. After installation of horizontal wells both in the saturated zone and the overburden, to be used for air sparging and vapor extraction if needed, the excavation should be

## 7.0 FINDINGS & RECOMMENDATIONS – CONT.

backfilled with highly permeable crushed stone. Finally, engineering controls in the form of a vapor barrier should be instituted to mitigate concerns associated with residual contamination in the formation off-gassing into future development spaces.

Time and cost estimates to execute these recommendations will be outlined in a Remedial Action Plan prepared following the finalization of this Remedial Investigation / Feasibility Study.

## 8.0 CERTIFICATION

The work proposed herein was conducted by or under the direct observation of the undersigned engineer licensed in the State of New York.

DAVE A PELLETIER
082127-1

David A. Pelletier, P.E.
Sealed March 15, 2009

Project Engineer
Seal

# 9.0 REFERENCES

The following includes a partial list of documents referred to during the preparation of this report.

1. U.S. Environmental Protection Agency, Standard Operating Safety Guides, U.S. EPA, November 1984.

2. U.S. Environmental Protection Agency, Superfund Public Health Evaluation Manual, EPA/540/1-86/060, January 1986.

3. 29 CFR 1910 Hazardous Waste Operations and Emergency Response, March 8, 1989.

4. NIOSH, Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, DHHS/NIOSH-85-115, October 1985.

5. NIOSH Criteria for Recommended Practice – "Working in Confined Space"

6. ACGIH, Threshold Limit Values and Biological Exposure Indices.

7. DRAFT DER-10 "Technical Guidance for Site Investigation and remediation" NYSDEC Division of Environmental Remediation – December 2002

8. *"Draft Brownfield Cleanup Program Guide"* NYSDEC Division of Environmental Remediation - May 2004

9. *"Monitoring well Design, Installation, and Documentation at Hazardous, Toxic and Radioactive Waste Sites"* USACE Office of Engineering and Design. Nov 1, 1998

10. ASTM Designation D1452-80 "Practice for Soil Investigation and Sampling by Auger Borings" rev 1990

11. ASTM Designation D4220-95 "Practices for Preserving and Transporting Samples"

12. ASTM Designation D4448-85a "Guide for Sampling Groundwater Monitoring Wells"

13. ASTM Designation D4700-91 "Guide for Soil Sampling from the Vadoze Zone"

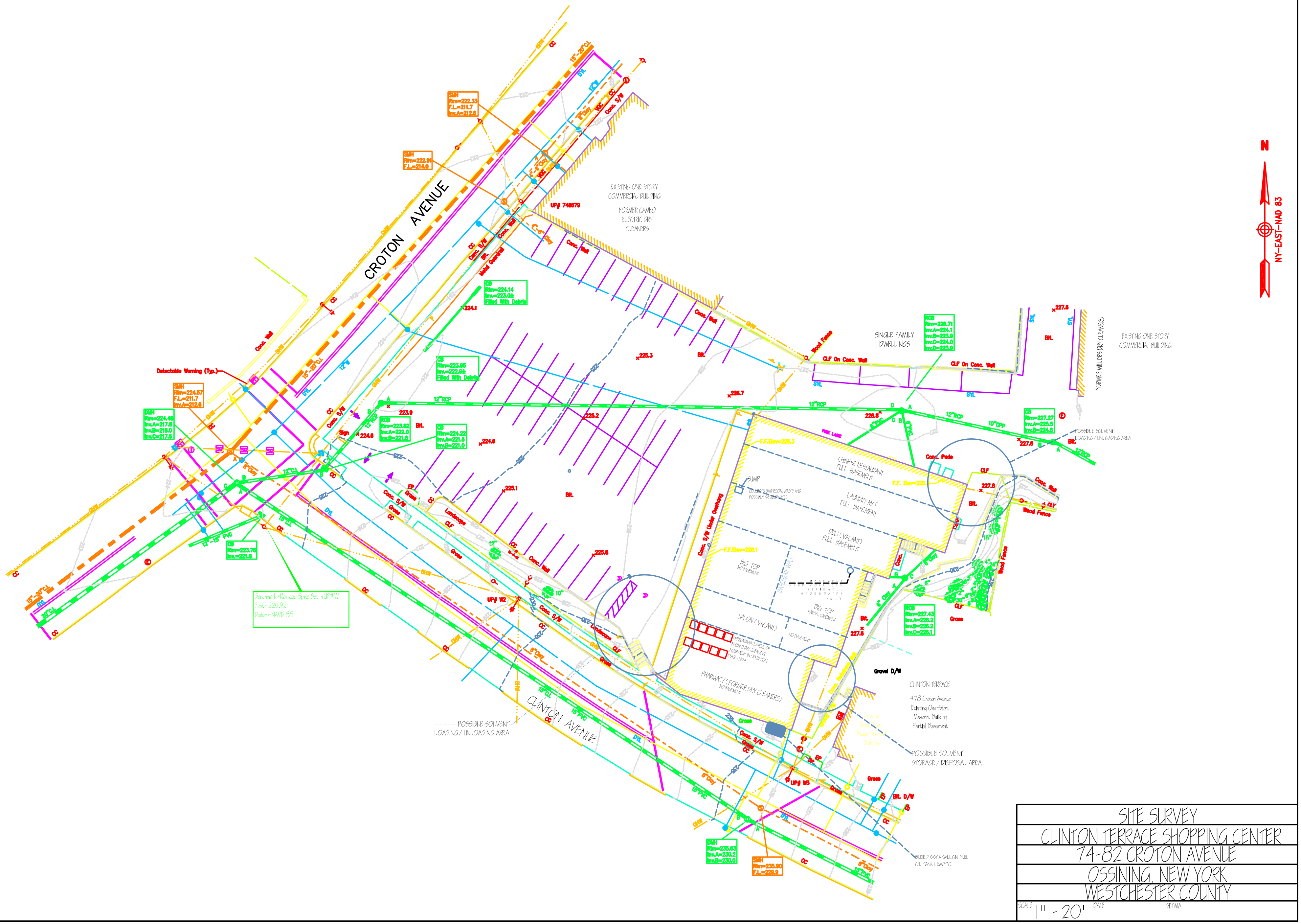
14. ASTM Designation D5092-90 "Practice for Design and Installation of Groundwater Monitoring Wells in Aquifers" rev 1995

15. ASTM Designation D6001-96 "Guide for Direct Push Water Sampling for Geoenvironmental Investigation

16. ASTM Designation D1903-97 "Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process"

# APPENDICES

# Appendix A – Site Survey



# SITE SURVEY

# CLINTON TERRACE SHOPPING CENTER

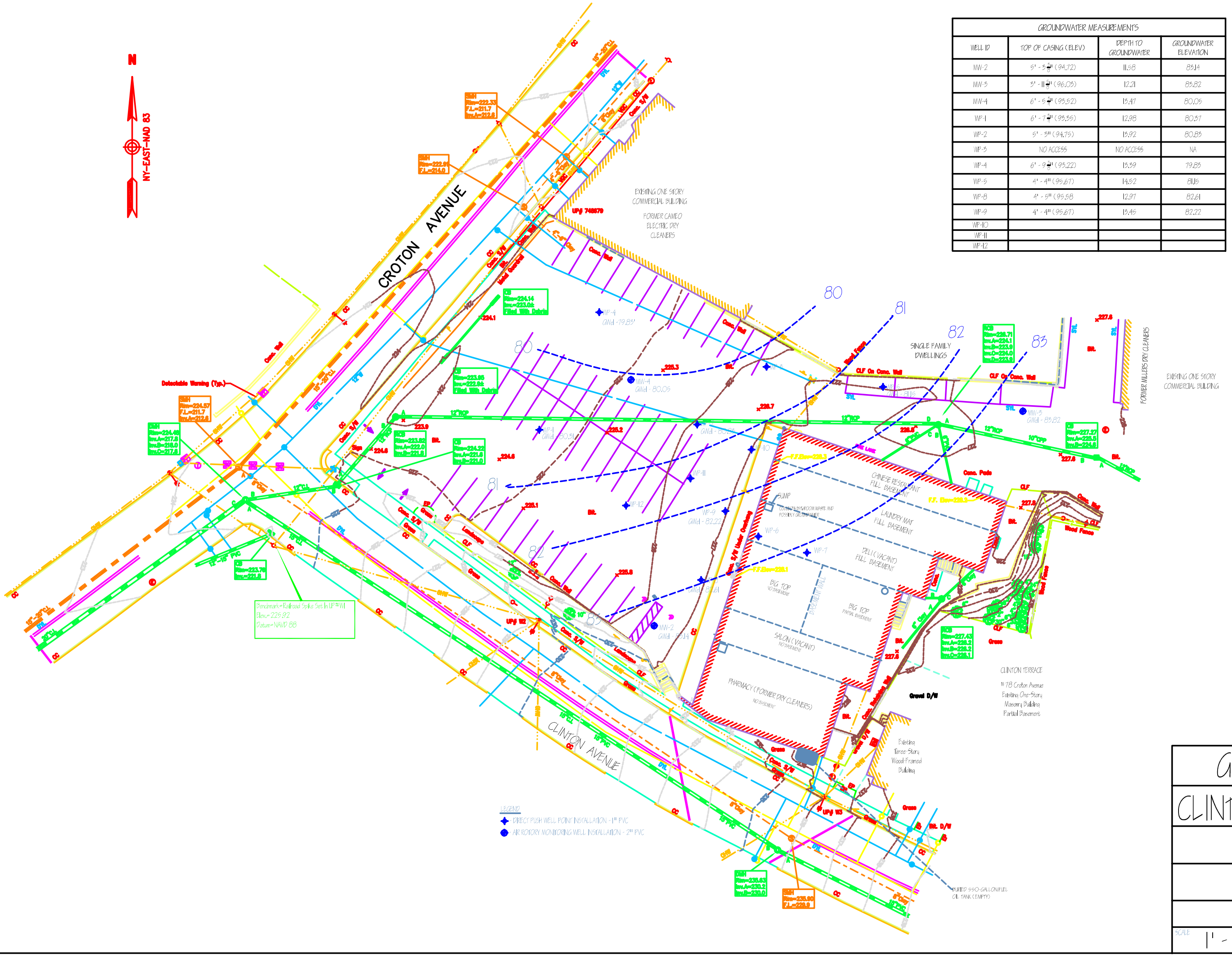
# 74-82 CROTON AVENUE

# OSSINING, NEW YORK

# WESTCHESTER COUNTY

SCALE: 1" - 20'   DATE   DFTMA:

# Appendix B – Groundwater Potentiometric Surface Map



## GROUNDWATER MEASUREMENTS

| WELL ID | TOP OF CASING (ELEV) | DEPTH TO GROUNDWATER | GROUNDWATER ELEVATION |
|---|---|---|---|
| MW-2 | 5' - 3$\frac{3}{8}$" (94.72) | 11.58 | 83.14 |
| MW-3 | 3' - 11$\frac{5}{8}$" (96.03) | 12.21 | 83.82 |
| MW-4 | 6' - 5$\frac{3}{4}$" (93.52) | 13.47 | 80.05 |
| WP-1 | 6' - 7$\frac{3}{4}$" (93.35) | 12.98 | 80.37 |
| WP-2 | 5' - 3" (94.75) | 13.92 | 80.83 |
| WP-3 | NO ACCESS | NO ACCESS | NA |
| WP-4 | 6' - 9$\frac{3}{8}$" (93.22) | 13.39 | 79.83 |
| WP-5 | 4' - 4" (95.67) | 14.52 | 81.15 |
| WP-8 | 4' - 5" (95.58 | 12.97 | 82.61 |
| WP-9 | 4' - 4" (95.67) | 13.45 | 82.22 |
| WP-10 | | | |
| WP-11 | | | |
| WP-12 | | | |

## FIELD MEASUREMENTS

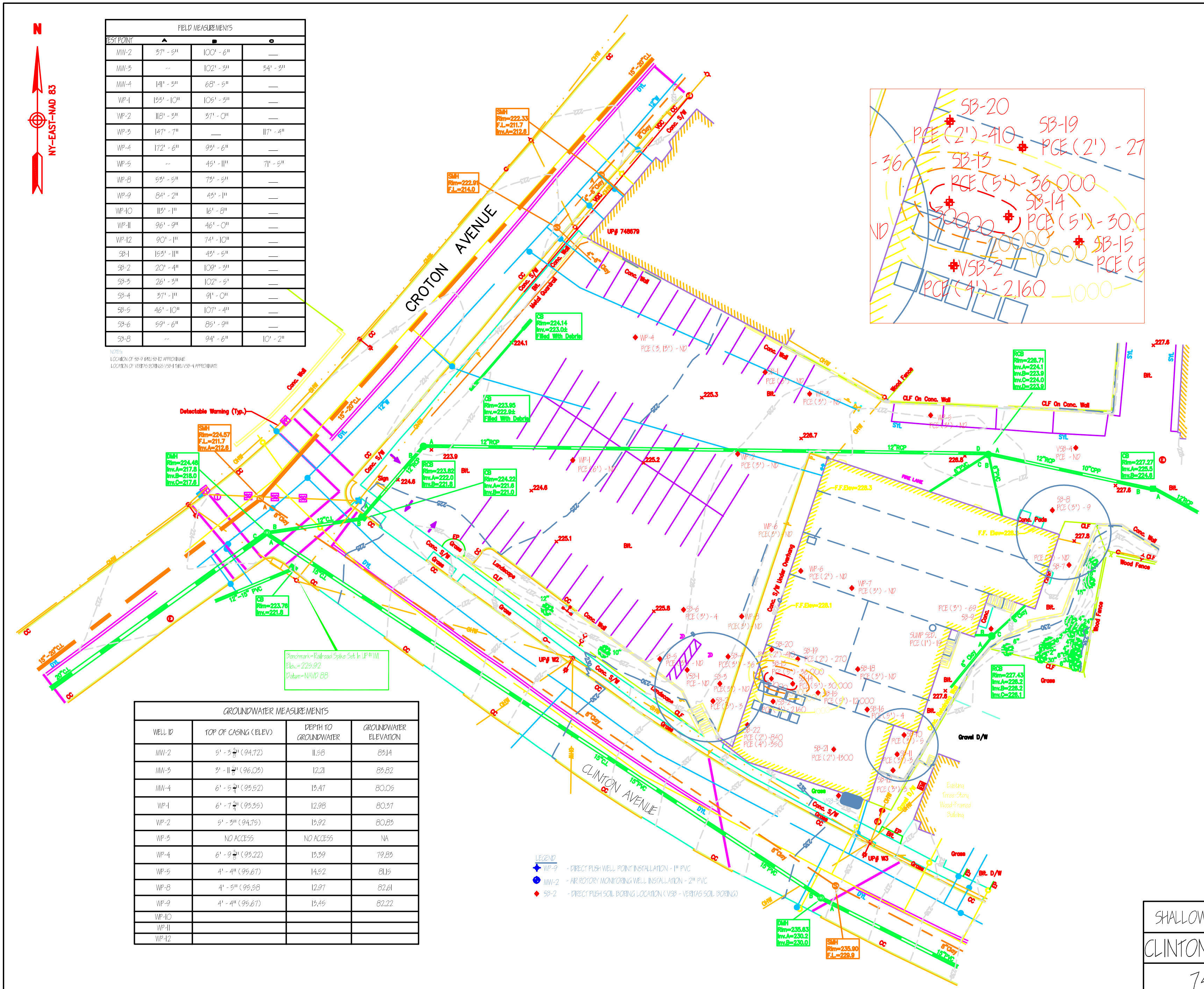
| TEST POINT | ▲ | ■ | ● |
|---|---|---|---|
| MW-2 | 37' - 5" | 100' - 6" | — |
| MW-3 | -- | 102' - 3" | 34' - 3" |
| MW-4 | 141' - 3" | 68' - 5" | — |
| WP-1 | 133' - 10" | 105' - 3" | — |
| WP-2 | 118' - 3" | 37' - 0" | — |
| WP-3 | 147' - 7" | — | 117' - 4" |
| WP-4 | 172' - 6" | 93' - 6" | — |
| WP-5 | -- | 45' - 11" | 71' - 5" |
| WP-8 | 53' - 5" | 73' - 5" | — |
| WP-9 | 84' - 2" | 43' - 1" | — |
| WP-10 | 113' - 1" | 16' - 8" | — |
| WP-11 | 96' - 9" | 46' - 0" | — |
| WP-12 | 90' - 1" | 74' - 10" | — |
| SB-1 | 153' - 11" | 43' - 5" | — |
| SB-2 | 20' - 4" | 109' - 3" | — |
| SB-3 | 26' - 3" | 102' - 5' | — |
| SB-4 | 37' - 1" | 91' - 0" | — |
| SB-5 | 46' - 10" | 107' - 4" | — |
| SB-6 | 59' - 6" | 85' - 9" | — |
| SB-8 | -- | 94' - 6" | 10' - 2" |

NOTES:
LOCATION OF SB-9 THRU SB-12 APPROXIMATE
LOCATION OF VERITAS BORINGS VSB-1 THRU VSB-4 APPROXIMATE

# GROUNDWATER CONTOUR MAP

CLINTON TERRACE SHOPPING CENTER
74-82 CROTON AVENUE
OSSINING, NEW YORK
JADE ENVIRONMENTAL, INC
SCALE 1' - 20'  DFTMN D. PELLETIER  DATE JAN 9 2009

# Appendix C – Shallow Soil Contamination Gradient Map



Benchmark=Railroad Spike Set In UP#W1
Elev.=225.92
Datum=NAVD 88

| FIELD MEASUREMENTS | | | |
|---|---|---|---|
| TEST POINT | A | B | C |
| MW-2 | 37' - 5" | 100' - 6" | — |
| MW-3 | -- | 102' - 3" | 34' - 3" |
| MW-4 | 141' - 3" | 68' - 5" | — |
| WP-1 | 133' - 10" | 105' - 3" | — |
| WP-2 | 118' - 3" | 37' - 0" | — |
| WP-3 | 147' - 7" | — | 117' - 4" |
| WP-4 | 172' - 6" | 93' - 6" | — |
| WP-5 | -- | 45' - 11" | 71' - 5" |
| WP-8 | 53' - 5" | 73' - 5" | — |
| WP-9 | 84' - 2" | 43' - 1" | — |
| WP-10 | 113' - 1" | 16' - 8" | — |
| WP-11 | 96' - 9" | 46' - 0" | — |
| WP-12 | 90' - 1" | 74' - 10" | — |
| SB-1 | 153' - 11" | 43' - 5" | — |
| SB-2 | 20' - 4" | 109' - 3" | — |
| SB-3 | 26' - 3" | 102' - 5' | — |
| SB-4 | 37' - 1" | 91' - 0" | — |
| SB-5 | 46' - 10" | 107' - 4" | — |
| SB-6 | 59' - 6" | 85' - 9" | — |
| SB-8 | -- | 94' - 6" | 10' - 2" |

NOTES:
LOCATION OF SB-9 THRU SB-12 APPROXIMATE
LOCATION OF VERITAS BORINGS VSB-1 THRU VSB-4 APPROXIMATE

| GROUNDWATER MEASUREMENTS | | | |
|---|---|---|---|
| WELL ID | TOP OF CASING (ELEV) | DEPTH TO GROUNDWATER | GROUNDWATER ELEVATION |
| MW-2 | 5' - 3 $\frac{3}{8}$" (94.72) | 11.58 | 83.14 |
| MW-3 | 3' - 11 $\frac{5}{8}$" (96.03) | 12.21 | 83.82 |
| MW-4 | 6' - 5 $\frac{3}{4}$" (93.52) | 13.47 | 80.05 |
| WP-1 | 6' - 7 $\frac{3}{4}$" (93.35) | 12.98 | 80.37 |
| WP-2 | 5' - 3" (94.75) | 13.92 | 80.83 |
| WP-3 | NO ACCESS | NO ACCESS | NA |
| WP-4 | 6' - 9 $\frac{3}{8}$" (93.22) | 13.39 | 79.83 |
| WP-5 | 4' - 4" (95.67) | 14.52 | 81.15 |
| WP-8 | 4' - 5" (95.58 | 12.97 | 82.61 |
| WP-9 | 4' - 4" (95.67) | 13.45 | 82.22 |
| WP-10 | | | |
| WP-11 | | | |
| WP-12 | | | |

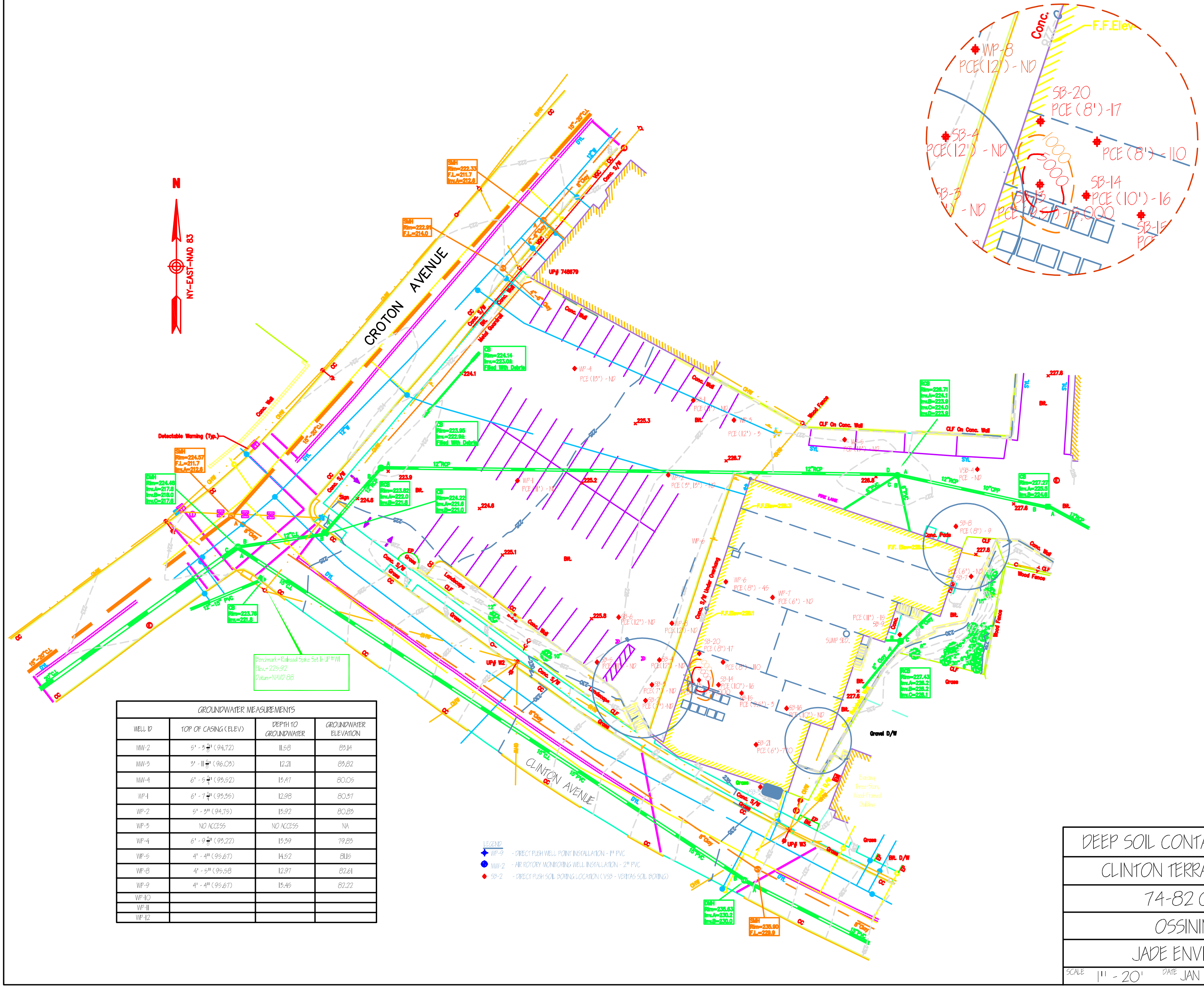
LEGEND

- ✦ WP-9 - DIRECT PUSH WELL POINT INSTALLATION - 1" PVC
- ● MW-2 - AIR ROTORY MONITORING WELL INSTALLATION - 2" PVC
- ◆ SB-2 - DIRECT PUSH SOIL BORING LOCATION (VSB - VERITAS SOIL BORING)

# SHALLOW SOIL CONTAMINATION GRADIENT MAP

CLINTON TERRACE SHOPPING CENTER
74-82 CROTON AVENUE
OSSINING, NEW YORK
JADE ENVIRONMENTAL, INC
SCALE 1" - 20' DATE JAN 9, 2009 SCALE D. PELLETIER

# Appendix D – Deep Soil Contamination Gradient Map



| GROUNDWATER MEASUREMENTS | | | |
|---|---|---|---|
| WELL ID | TOP OF CASING (ELEV) | DEPTH TO GROUNDWATER | GROUNDWATER ELEVATION |
| MW-2 | 5' - 3$\frac{3}{8}$" (94.72) | 11.58 | 83.14 |
| MW-3 | 3' - 11$\frac{5}{8}$" (96.03) | 12.21 | 83.82 |
| MW-4 | 6' - 5$\frac{3}{4}$" (93.52) | 13.47 | 80.05 |
| WP-1 | 6' - 7$\frac{3}{4}$" (93.35) | 12.98 | 80.37 |
| WP-2 | 5' - 3" (94.75) | 13.92 | 80.83 |
| WP-3 | NO ACCESS | NO ACCESS | NA |
| WP-4 | 6' - 9$\frac{3}{8}$" (93.22) | 13.39 | 79.83 |
| WP-5 | 4' - 4" (95.67) | 14.52 | 81.15 |
| WP-8 | 4' - 5" (95.58 | 12.97 | 82.61 |
| WP-9 | 4' - 4" (95.67) | 13.45 | 82.22 |
| WP-10 | | | |
| WP-11 | | | |
| WP-12 | | | |

LEGEND
- ✦ WP-9 - DIRECT PUSH WELL POINT INSTALLATION - 1" PVC
- ● MW-2 - AIR ROTORY MONITORING WELL INSTALLATION - 2" PVC
- ● SB-2 - DIRECT PUSH SOIL BORING LOCATION (VSB - VERITAS SOIL BORING)

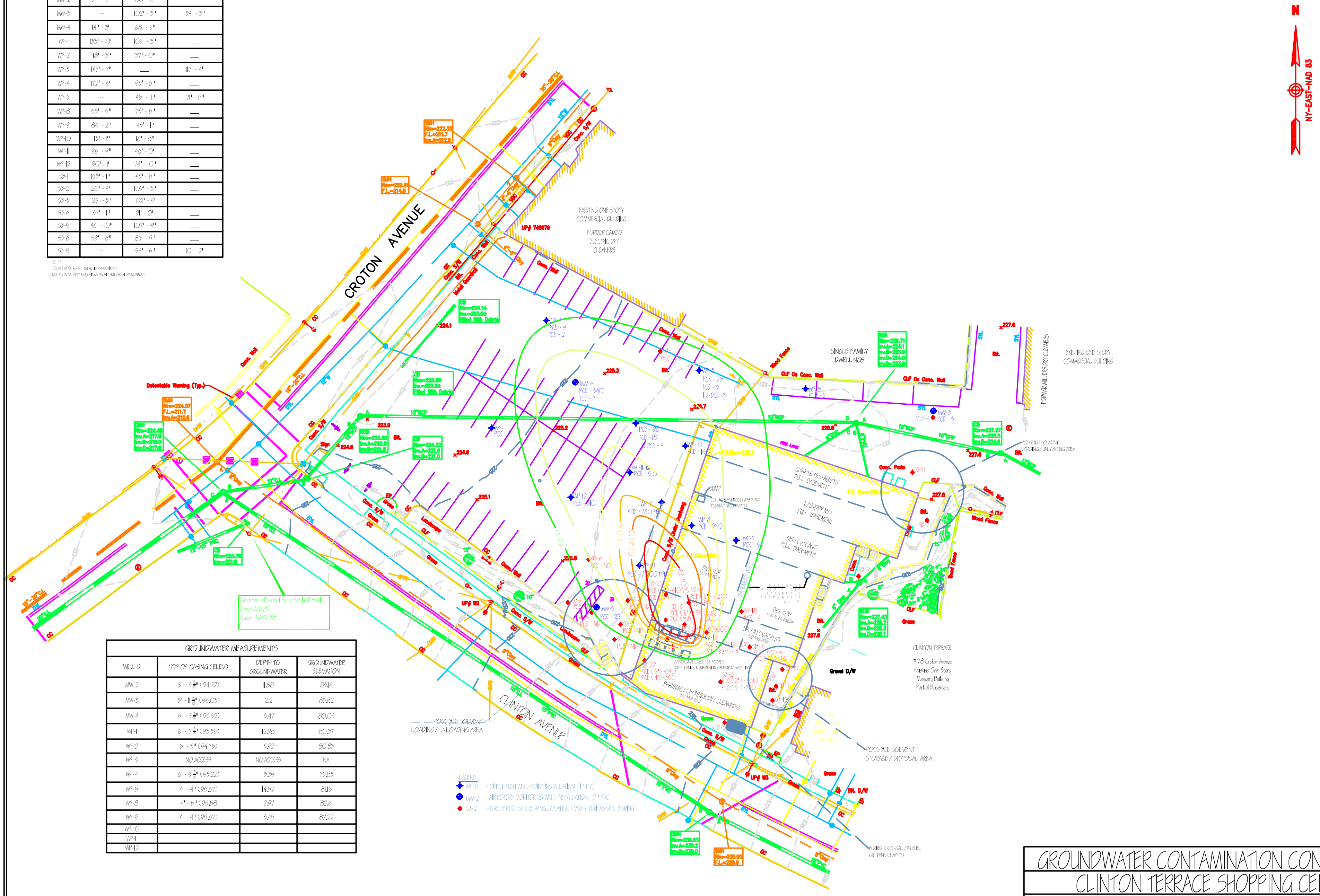
DEEP SOIL CONTAMINATION GRADIENT MAP
CLINTON TERRACE SHOPPING CENTER
74-82 CROTON AVENUE
OSSINING, NEW YORK
JADE ENVIRONMENTAL, INC

| SCALE | DATE | DFTMN |
|---|---|---|
| 1" - 20' | JAN 10, 2009 | D PELLETIER |

# Appendix E – Groundwater Contamination Gradient Map

| FIELD MEASUREMENTS | | | |
|---|---|---|---|
| TEST POINT | A | B | C |
| MW-2 | 37' - 5" | 100' - 6" | ___ |
| MW-3 | -- | 102' - 3" | 34' - 3" |
| MW-4 | 141' - 3" | 68' - 5" | ___ |
| WP-1 | 133' - 10" | 105' - 3" | ___ |
| WP-2 | 118' - 3" | 37' - 0" | ___ |
| WP-3 | 147' - 7" | ___ | 117' - 4" |
| WP-4 | 172' - 6" | 93' - 6" | ___ |
| WP-5 | -- | 45' - 11" | 71' - 5" |
| WP-8 | 53' - 5" | 73' - 5" | ___ |
| WP-9 | 84' - 2" | 43' - 1" | ___ |
| WP-10 | 113' - 1" | 16' - 8" | ___ |
| WP-11 | 96' - 9" | 46' - 0" | ___ |
| WP-12 | 90' - 1" | 74' - 10" | ___ |
| SB-1 | 153' - 11" | 43' - 5" | ___ |
| SB-2 | 20' - 4" | 109' - 3" | ___ |
| SB-3 | 26' - 3" | 102' - 5' | ___ |
| SB-4 | 37' - 1" | 91' - 0" | ___ |
| SB-5 | 46' - 10" | 107' - 4" | ___ |
| SB-6 | 59' - 6" | 85' - 9" | ___ |
| SB-8 | -- | 94' - 6" | 10' - 2" |

NOTES:
LOCATION OF SB-9 THRU SB-12 APPROXIMATE
LOCATION OF VERITAS BORINGS VSB-1 THRU VSB-4 APPROXIMATE



| GROUNDWATER MEASUREMENTS | | | |
|---|---|---|---|
| WELL ID | TOP OF CASING (ELEV) | DEPTH TO GROUNDWATER | GROUNDWATER ELEVATION |
| MW-2 | 5' - 3 3/8" (94.72) | 11.58 | 83.14 |
| MW-3 | 3' - 11 5/8" (96.03) | 12.21 | 83.82 |
| MW-4 | 6' - 5 3/4" (93.52) | 13.47 | 80.05 |
| WP-1 | 6' - 7 3/4" (93.35) | 12.98 | 80.37 |
| WP-2 | 5' - 3" (94.75) | 13.92 | 80.83 |
| WP-3 | NO ACCESS | NO ACCESS | NA |
| WP-4 | 6' - 9 3/8" (93.22) | 13.39 | 79.83 |
| WP-5 | 4' - 4" (95.67) | 14.52 | 81.15 |
| WP-8 | 4' - 5" (95.58 | 12.97 | 82.61 |
| WP-9 | 4' - 4" (95.67) | 13.45 | 82.22 |
| WP-10 | | | |
| WP-11 | | | |
| WP-12 | | | |

# GROUNDWATER CONTAMINATION CONTOUR MAP
CLINTON TERRACE SHOPPING CENTER
74-82 CROTON AVENUE
OSSINING, NEW YORK
JADE ENVIRONMENTAL, INC
SCALE: 1" - 20' DATE JAN 9, 09 DFTMN D. PELLETIER

# Appendix F – Laboratory Analysis
# Sampling Event 1

# YORK
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for:

**Jade Environmental, Inc.**
**59 Circle Drive**
**Hopewell Junction, NY 12533**
**Attention: Mr. Dave Pelletier**

Report Date: 11/17/2008
***Re: Client Project ID: Clinton Terrace***
York Project No.: 08110280

CT License No. PH-0723 New Jersey License No. CT-005 New York License No. 10854

120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1371 FAX (203) 357-0166

Report Date: 11/17/2008
Client Project ID: Clinton Terrace
York Project No.: 08110280

**Jade Environmental, Inc.**
59 Circle Drive
Hopewell Junction, NY 12533
Attention: Mr. Dave Pelletier

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 11/07/08. The project was identified as your project "Clinton Terrace".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## *Analysis Results*

| **Client Sample ID** | | | **WP-1 (6')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-01** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |

| **Client Sample ID** | | | **WP-1 (6')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-01** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 32 | B | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 90.3 | --- | 1.0 |

| **Client Sample ID** | | | **WP-1 11')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-02** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |

| **Client Sample ID** | | | **WP-1 11')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-02** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 29 | B | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 91.2 | --- | 1.0 |

| **Client Sample ID** | | | **WP-2 (3')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-03** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |

| Client Sample ID | | | WP-2 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-03 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 33 | B | 23 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 88.6 | --- | 1.0 |

| Client Sample ID | | | WP-2 (13') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-04 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 33 | B | 24 |
| Tetrachloroethylene | | | Not detected | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |

| **Client Sample ID** | | | **WP-2 (13')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-04** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 83.6 | --- | 1.0 |

| **Client Sample ID** | | | **WP-3 (3')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-05** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 22 |
| Methylene chloride | | | 18 | JB | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 90.6 | --- | 1.0 |

| **Client Sample ID** | | | **WP-3 (12')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-06** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 17 | JB | 23 |
| Tetrachloroethylene | | | 3 | J | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 85.5 | --- | 1.0 |

| **Client Sample ID** | | | **SB-1 (6')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-07** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |

| Client Sample ID | | | SB-1 (6') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-07 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 24 |
| Methylene chloride | | | 13 | JB | 24 |
| Tetrachloroethylene | | | Not detected | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 82.6 | --- | 1.0 |

| Client Sample ID | | | SB-1 (11') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-08 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |

| Client Sample ID | | | SB-1 (11') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-08** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 19 | JB | 24 |
| Tetrachloroethylene | | | Not detected | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 83.6 | --- | 1.0 |

| Client Sample ID | | | WP-4 (3') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-09** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |

| Client Sample ID | | | WP-4 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-09 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 31 | B | 23 |
| Tetrachloroethylene | | | Not detected | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 85.5 | --- | 1.0 |

| Client Sample ID | | | WP-4 (13') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-10 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |

| Client Sample ID | | | WP-4 (13') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-10 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 29 | B | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 89.8 | --- | 1.0 |

| Client Sample ID | | | SB-2 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-11 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 23 |
| Methylene chloride | | | 20 | JB | 23 |

| Client Sample ID | | | SB-2 (3') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-11** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Tetrachloroethylene | | | 3 | J | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 87.4 | --- | 1.0 |

| Client Sample ID | | | SB-2 (7') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-12** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 24 | B | 24 |
| Tetrachloroethylene | | | Not detected | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |

| Client Sample ID | | | SB-2 (7') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-12 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Total Solids | SM 2540B | % | 82.7 | --- | 1.0 |

| Client Sample ID | | | SB-3 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-13 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 23 |
| Methylene chloride | | | 21 | JB | 23 |
| Tetrachloroethylene | | | Not detected | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 86.8 | --- | 1.0 |

| Client Sample ID | | | SB-3 (7') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-14 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 21 | JB | 23 |
| Tetrachloroethylene | | | Not detected | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 87.1 | --- | 1.0 |

| Client Sample ID | | | SB-4 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-15 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |

| Client Sample ID | | | SB-4 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-15 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 24 |
| Methylene chloride | | | 19 | JB | 24 |
| Tetrachloroethylene | | | 36 | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 85.2 | --- | 1.0 |

| Client Sample ID | | | SB-4 (12') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-16 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |

| Client Sample ID | | | SB-4 (12') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-16 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 16 | JB | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 90.4 | --- | 1.0 |

| Client Sample ID | | | SB-5 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-17 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |

| Client Sample ID | | | SB-5 (3') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-17** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 22 |
| Methylene chloride | | | 18 | JB | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 89.3 | --- | 1.0 |

| Client Sample ID | | | SB-5 (11') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-18** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |

| Client Sample ID | | | SB-5 (11') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-18 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 16 | JB | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 91.8 | --- | 1.0 |

| Client Sample ID | | | SB-6 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-19 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 24 |
| Methylene chloride | | | 19 | JB | 24 |

| **Client Sample ID** | | | **SB-6 (3')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-19** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Tetrachloroethylene | | | 4 | J | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 84.3 | --- | 1.0 |

| **Client Sample ID** | | | **SB-6 (12')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-20** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 19 | JB | 25 |
| Tetrachloroethylene | | | Not detected | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |

| **Client Sample ID** | | | **SB-6 (12')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-20** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Total Solids | SM 2540B | % | 80.7 | --- | 1.0 |

| **Client Sample ID** | | | **SB-7 (3')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-21** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 22 |
| Methylene chloride | | | 17 | JB | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 93.0 | --- | 1.0 |

| Client Sample ID | | | SB-7 (9') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-22 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 15 | JB | 21 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 93.9 | --- | 1.0 |

| Client Sample ID | | | SB-8 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-23 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |

| Client Sample ID | | | SB-8 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-23 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 23 |
| Methylene chloride | | | 20 | JB | 23 |
| Tetrachloroethylene | | | 9 | J | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 88.2 | --- | 1.0 |

| Client Sample ID | | | SB-8 (8') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-24 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |

| Client Sample ID | | | SB-8 (8') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-24** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 24 | | 23 |
| Tetrachloroethylene | | | 9 | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 87.2 | --- | 1.0 |

| Client Sample ID | | | WP-5 (3') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-25** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |

| **Client Sample ID** | | | **WP-5 (3')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-25** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 22 |
| Methylene chloride | | | 22 | B | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 90.3 | --- | 1.0 |

| **Client Sample ID** | | | **WP-5 (13')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110280-26** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |

| Client Sample ID | | | WP-5 (13') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110280-26 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 15 | JB | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 91.4 | --- | 1.0 |

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

## Notes for York Project No. 08110280

1. The "RL" is the REPORTING LIMIT and is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This REPORTING LIMIT is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.
8. Other attachments to this report, including Chain-of-custody documentation and Case narratives are hereby made a part of this report.

**Approved By:**

Robert Q. Bradley
Managing Director

**Date:** 11/17/2008

**YORK**
ANALYTICAL LABORATORIES, INC.
ONE RESEARCH DRIVE
STAMFORD, CT 06906
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

Page 1 of 3

08110280

| Company Name | Report To: | Invoice To: | Project ID/No. | |
|---|---|---|---|---|
| Jade Environmental, Inc | Dave Pelletier | Same | Clinton Terrace | Samples Collected By (Signature)<br>Dave Pelletier<br>Name (Printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix Water | Soil | Air | OTHER | ANALYSES REQUESTED | Container Description(s) |
|---|---|---|---|---|---|---|---|---|
| 1 | WP-1 (6') | 11/5/08 | | ✓ | | | EPA Analytical/Method 8010 | 2 oz |
| | WP-1 (11') | | | | | | | |
| | WP-2 (3 | | | | | | | |
| | WP-2 (13') | | | | | | | |
| | WP-3 (03') | | | | | | | |
| | WP-3 (12') | | | | | | | |
| | SB-1 (8') | | | | | | | |
| | SB-1 (11') | | | | | | | |
| | WP-4 (3') | 11/6/08 | | | | | | |
| 10 | WP-4 (13') | | | | | | | |

## Chain-of-Custody Record

| | | | | | |
|---|---|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Sample Relinquished by | Date/Time | Sample Received by | Date/Time<br>11-7-08<br>11:10 |
| Bottles Received in Field by | Date/Time | Sample Relinquished by | Date/Time<br>11/7/08 | Sample Received in LAB by | Date/Time<br>11/7/08 17 |

**Comments/Special Instructions**
① Level B report deliverables
② 20 samples total (No sample #11 submitted)
2.9°C

**Turn-Around Time**
___ Standard ✓ RUSH(define) End-of-Day 11/14/08

**YORK**
ANALYTICAL LABORATORIES, INC.
ONE RESEARCH DRIVE
STAMFORD, CT 06906
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

Page 2 of ~~4~~
2 of 3
08110280

| Company Name | Report To: | Invoice To: | Project ID/No. | Samples Collected By (Signature) / Name (Printed) |
|---|---|---|---|---|
| JADE ENVIRONMENTAL, INC. | D. PELLETIER | SAME | Clayton Terrace | DAVE PELLETIER |

| Sample No. | Location/ID | Date Sampled | Sample Matrix Water | Sample Matrix Soil | Sample Matrix Air | Sample Matrix OTHER | ANALYSES REQUESTED | Container Description(s) |
|---|---|---|---|---|---|---|---|---|
| 11 | ~~SB-4~~ (No sample) | 11-6-08 | | ✓ | | | CHLORINATED SOLVENTS EPA 8010 | 2 oz |
| | SB-2 (3') | | | | | | | |
| | SB-2 (7') | | | | | | | |
| | SB-3 (3') | | | | | | | |
| | SB-3 (7') | | | | | | | |
| | SB-4 (3') | | | | | | | |
| | SB-4 (12') | | | | | | | |
| | SB-5 (3') | | | | | | | |
| | SB-5 (11') | | | | | | | |
| 20 | SB-6 (3') | | | | | | | |

**Chain-of-Custody Record**

| Bottles Relinquished from Lab by | Date/Time | Sample Relinquished by | Date/Time | Sample Received by | Date/Time |
|---|---|---|---|---|---|
| | | | | | 11-7-08 11:10 |

| Bottles Received in Field by | Date/Time | Sample Relinquished by | Date/Time | Sample Received in LAB by | Date/Time |
|---|---|---|---|---|---|
| | | | 11/7/08 | | 11/7/08 13 |

Comments/Special Instructions * Level B deliverable

3.9C

**Turn-Around Time**
___ Standard ✓ RUSH(define) 5pm 11/14/08

**YORK**
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

Page 3 of 3

08110280

| Company Name | Report To: | Invoice To: | Project ID/No. | |
|---|---|---|---|---|
| Jade Environmental, Inc. | Dave Pelletier | Same | Clinton Terrace | Samples Collected By (Signature)<br>Dave Pelletier<br>Name (Printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix Water | Soil | Air | OTHER | ANALYSES REQUESTED | Container Description(s) |
|---|---|---|---|---|---|---|---|---|
| 21 | SB-6 (12') | 11/6/08 | | ✓ | | | 8010 | |
| ↓ | SB-7 (3') | ↓ | | ↓ | | | ↓ | |
| ↓ | SB-7 (9') | ↓ | | ↓ | | | ↓ | |
| ↓ | SB-8 (3') | ↓ | | ↓ | | | ↓ | |
| 25 | SB-8 (8') | ↓ | | ↓ | | | ↓ | |
| 26 | WP-5 (3') | ↓ | | ↓ | | | ↓ | |
| 27 | WP-5 (13') | ↓ | | ↓ | | | ↓ | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**Chain-of-Custody Record**

| | | | | | |
|---|---|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Sample Relinquished by | Date/Time 11/7/08 | Sample Received by | Date/Time 11-7-08 11:10 |
| Bottles Received in Field by | Date/Time | Sample Relinquished by | Date/Time | Sample Received in LAB by | Date/Time 11/7/08 17:- |

Comments/Special Instructions * Level B deliverable

3.9°C

**Turn-Around Time**
____ Standard ✓ RUSH(define) 5pm 11/14/08

# Appendix G – Laboratory Analysis
# Sampling Event 2

**YORK**
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for:

**Jade Environmental, Inc.**
**59 Circle Drive**
**Hopewell Junction, NY 12533**
**Attention: Mr. Dave Pelletier**

Report Date: 12/2/2008
*Re: Client Project ID: Clanton Terrace*
York Project No.: 08110799

CT License No. PH-0723
New Jersey License No. CT-005
New York License No. 10854

Report Date: 12/2/2008
Client Project ID: Clanton Terrace
York Project No.: 08110799

**Jade Environmental, Inc.**
59 Circle Drive
Hopewell Junction, NY 12533
Attention: Mr. Dave Pelletier

---

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 11/21/08. The project was identified as your project "Clanton Terrace".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## *Analysis Results*

| **Client Sample ID** | | | **Big Top Sump** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-01** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |

| Client Sample ID | | | Big Top Sump | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-01 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 12 | JB | 24 |
| Tetrachloroethylene | | | 19 | J | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 83.2 | --- | 1.0 |

| Client Sample ID | | | SB-9 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-02 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |

| **Client Sample ID** | | | **SB-9 (3')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-02** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 14 | JB | 23 |
| Tetrachloroethylene | | | 69 | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 88.2 | --- | 1.0 |

| **Client Sample ID** | | | **SB-9 (11')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-03** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |

| **Client Sample ID** | | | **SB-9 (11')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-03** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 12 | JB | 23 |
| Tetrachloroethylene | | | 15 | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 88.3 | --- | 1.0 |

| **Client Sample ID** | | | **SB-10 (3')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-04** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 12 | JB | 25 |
| Tetrachloroethylene | | | 5 | J | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |

| **Client Sample ID** | | | **SB-10 (3')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-04** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 81.5 | --- | 1.0 |

| **Client Sample ID** | | | **SB-11 (3')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-05** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 12 | JB | 24 |
| Tetrachloroethylene | | | 2.4 | J | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 83.0 | --- | 1.0 |

| Client Sample ID | | | SB-12 (3') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-06** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 11 | JB | 23 |
| Tetrachloroethylene | | | 9 | J | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 86.4 | --- | 1.0 |

| Client Sample ID | | | WP-6 (1-2') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-07** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |

| **Client Sample ID** | | | **WP-6 (1-2')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-07** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 11 | JB | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 91.4 | --- | 1.0 |

| **Client Sample ID** | | | **WP-6 (8')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-08** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |

| **Client Sample ID** | | | **WP-6 (8')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-08** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 10 | JB | 24 |
| Tetrachloroethylene | | | 45 | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 84.6 | --- | 1.0 |

| **Client Sample ID** | | | **SB-18 (3')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-09** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |

| Client Sample ID | | | SB-18 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-09 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 12 | JB | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 92.0 | --- | 1.0 |

| Client Sample ID | | | SB-13 (5') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-10 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 3000 |
| 1,1,1-Trichloroethane | | | Not detected | | 3000 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 3000 |
| 1,1,2-Trichloroethane | | | Not detected | | 3000 |
| 1,1-Dichloroethane | | | Not detected | | 3000 |
| 1,1-Dichloroethylene | | | Not detected | | 3000 |
| 1,2-Dichlorobenzene | | | Not detected | | 3000 |
| 1,2-Dichloroethane | | | Not detected | | 3000 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 3000 |
| 1,2-Dichloropropane | | | Not detected | | 3000 |
| 1,3-Dichlorobenzene | | | Not detected | | 3000 |
| 1,4-Dichlorobenzene | | | Not detected | | 3000 |
| 2-Chlorotoluene | | | Not detected | | 3000 |
| 4-Chlorotoluene | | | Not detected | | 3000 |
| Bromobenzene | | | Not detected | | 3000 |
| Bromodichloromethane | | | Not detected | | 3000 |
| Bromoform | | | Not detected | | 3000 |
| Bromomethane | | | Not detected | | 3000 |
| Carbon tetrachloride | | | Not detected | | 3000 |
| Chlorobenzene | | | Not detected | | 3000 |
| Chloroethane | | | Not detected | | 3000 |
| Chloroform | | | Not detected | | 3000 |

| **Client Sample ID** | | | **SB-13 (5')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-10** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Chloromethane | | | Not detected | | 3000 |
| cis-1,3-Dichloropropylene | | | Not detected | | 3000 |
| Dibromochloromethane | | | Not detected | | 3000 |
| Dibromomethane | | | Not detected | | 3000 |
| Dichlorodifluoromethane | | | Not detected | | 3000 |
| Methylene chloride | | | 2400 | JB | 6000 |
| Tetrachloroethylene | | | 36000 | | 3000 |
| trans-1,3-Dichloropropylene | | | Not detected | | 3000 |
| Trichloroethylene | | | Not detected | | 3000 |
| Trichlorofluoromethane | | | Not detected | | 3000 |
| Trichloropropane | | | Not detected | | 3000 |
| Vinyl chloride | | | Not detected | | 3000 |
| Total Solids | SM 2540B | % | 82.1 | --- | 1.0 |

| **Client Sample ID** | | | **SB-13 (9.5')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-11** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 600 |
| 1,1,1-Trichloroethane | | | Not detected | | 600 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 600 |
| 1,1,2-Trichloroethane | | | Not detected | | 600 |
| 1,1-Dichloroethane | | | Not detected | | 600 |
| 1,1-Dichloroethylene | | | Not detected | | 600 |
| 1,2-Dichlorobenzene | | | Not detected | | 600 |
| 1,2-Dichloroethane | | | Not detected | | 600 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 600 |
| 1,2-Dichloropropane | | | Not detected | | 600 |
| 1,3-Dichlorobenzene | | | Not detected | | 600 |
| 1,4-Dichlorobenzene | | | Not detected | | 600 |
| 2-Chlorotoluene | | | Not detected | | 600 |
| 4-Chlorotoluene | | | Not detected | | 600 |
| Bromobenzene | | | Not detected | | 600 |
| Bromodichloromethane | | | Not detected | | 600 |
| Bromoform | | | Not detected | | 600 |
| Bromomethane | | | Not detected | | 600 |
| Carbon tetrachloride | | | Not detected | | 600 |
| Chlorobenzene | | | Not detected | | 600 |
| Chloroethane | | | Not detected | | 600 |
| Chloroform | | | Not detected | | 600 |
| Chloromethane | | | Not detected | | 600 |
| cis-1,3-Dichloropropylene | | | Not detected | | 600 |
| Dibromochloromethane | | | Not detected | | 600 |
| Dibromomethane | | | Not detected | | 600 |
| Dichlorodifluoromethane | | | Not detected | | 600 |
| Methylene chloride | | | 500 | JB | 1200 |

| Client Sample ID | | | SB-13 (9.5') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-11** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Tetrachloroethylene | | | 5000 | | 600 |
| trans-1,3-Dichloropropylene | | | Not detected | | 600 |
| Trichloroethylene | | | Not detected | | 600 |
| Trichlorofluoromethane | | | Not detected | | 600 |
| Trichloropropane | | | Not detected | | 600 |
| Vinyl chloride | | | Not detected | | 600 |
| Total Solids | SM 2540B | % | 84.2 | --- | 1.0 |

| Client Sample ID | | | SB-14 (5') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-12** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 3000 |
| 1,1,1-Trichloroethane | | | Not detected | | 3000 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 3000 |
| 1,1,2-Trichloroethane | | | Not detected | | 3000 |
| 1,1-Dichloroethane | | | Not detected | | 3000 |
| 1,1-Dichloroethylene | | | Not detected | | 3000 |
| 1,2-Dichlorobenzene | | | Not detected | | 3000 |
| 1,2-Dichloroethane | | | Not detected | | 3000 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 3000 |
| 1,2-Dichloropropane | | | Not detected | | 3000 |
| 1,3-Dichlorobenzene | | | Not detected | | 3000 |
| 1,4-Dichlorobenzene | | | Not detected | | 3000 |
| 2-Chlorotoluene | | | Not detected | | 3000 |
| 4-Chlorotoluene | | | Not detected | | 3000 |
| Bromobenzene | | | Not detected | | 3000 |
| Bromodichloromethane | | | Not detected | | 3000 |
| Bromoform | | | Not detected | | 3000 |
| Bromomethane | | | Not detected | | 3000 |
| Carbon tetrachloride | | | Not detected | | 3000 |
| Chlorobenzene | | | Not detected | | 3000 |
| Chloroethane | | | Not detected | | 3000 |
| Chloroform | | | Not detected | | 3000 |
| Chloromethane | | | Not detected | | 3000 |
| cis-1,3-Dichloropropylene | | | Not detected | | 3000 |
| Dibromochloromethane | | | Not detected | | 3000 |
| Dibromomethane | | | Not detected | | 3000 |
| Dichlorodifluoromethane | | | Not detected | | 3000 |
| Methylene chloride | | | 2500 | JB | 6000 |
| Tetrachloroethylene | | | 30000 | | 3000 |
| trans-1,3-Dichloropropylene | | | Not detected | | 3000 |
| Trichloroethylene | | | Not detected | | 3000 |
| Trichlorofluoromethane | | | Not detected | | 3000 |
| Trichloropropane | | | Not detected | | 3000 |
| Vinyl chloride | | | Not detected | | 3000 |

| **Client Sample ID** | | | **SB-14 (5')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-12** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Total Solids | SM 2540B | % | 82.3 | --- | 1.0 |

| **Client Sample ID** | | | **SB-14 (10')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-13** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 10 |
| 1,1,1-Trichloroethane | | | Not detected | | 10 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 10 |
| 1,1,2-Trichloroethane | | | Not detected | | 10 |
| 1,1-Dichloroethane | | | Not detected | | 10 |
| 1,1-Dichloroethylene | | | Not detected | | 10 |
| 1,2-Dichlorobenzene | | | Not detected | | 10 |
| 1,2-Dichloroethane | | | Not detected | | 10 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 10 |
| 1,2-Dichloropropane | | | Not detected | | 10 |
| 1,3-Dichlorobenzene | | | Not detected | | 10 |
| 1,4-Dichlorobenzene | | | Not detected | | 10 |
| 2-Chlorotoluene | | | Not detected | | 10 |
| 4-Chlorotoluene | | | Not detected | | 10 |
| Bromobenzene | | | Not detected | | 10 |
| Bromodichloromethane | | | Not detected | | 10 |
| Bromoform | | | Not detected | | 10 |
| Bromomethane | | | Not detected | | 10 |
| Carbon tetrachloride | | | Not detected | | 10 |
| Chlorobenzene | | | Not detected | | 10 |
| Chloroethane | | | Not detected | | 10 |
| Chloroform | | | Not detected | | 10 |
| Chloromethane | | | Not detected | | 10 |
| cis-1,3-Dichloropropylene | | | Not detected | | 10 |
| Dibromochloromethane | | | Not detected | | 10 |
| Dibromomethane | | | Not detected | | 10 |
| Dichlorodifluoromethane | | | Not detected | | 10 |
| Methylene chloride | | | 14 | JB | 20 |
| Tetrachloroethylene | | | 16 | | 10 |
| trans-1,3-Dichloropropylene | | | Not detected | | 10 |
| Trichloroethylene | | | Not detected | | 10 |
| Trichlorofluoromethane | | | Not detected | | 10 |
| Trichloropropane | | | Not detected | | 10 |
| Vinyl chloride | | | Not detected | | 10 |
| Total Solids | SM 2540B | % | 82.5 | --- | 1.0 |

| **Client Sample ID** | | | **SB-15 (5')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-14** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 1200 |
| 1,1,1-Trichloroethane | | | Not detected | | 1200 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 1200 |
| 1,1,2-Trichloroethane | | | Not detected | | 1200 |
| 1,1-Dichloroethane | | | Not detected | | 1200 |
| 1,1-Dichloroethylene | | | Not detected | | 1200 |
| 1,2-Dichlorobenzene | | | Not detected | | 1200 |
| 1,2-Dichloroethane | | | Not detected | | 1200 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 1200 |
| 1,2-Dichloropropane | | | Not detected | | 1200 |
| 1,3-Dichlorobenzene | | | Not detected | | 1200 |
| 1,4-Dichlorobenzene | | | Not detected | | 1200 |
| 2-Chlorotoluene | | | Not detected | | 1200 |
| 4-Chlorotoluene | | | Not detected | | 1200 |
| Bromobenzene | | | Not detected | | 1200 |
| Bromodichloromethane | | | Not detected | | 1200 |
| Bromoform | | | Not detected | | 1200 |
| Bromomethane | | | Not detected | | 1200 |
| Carbon tetrachloride | | | Not detected | | 1200 |
| Chlorobenzene | | | Not detected | | 1200 |
| Chloroethane | | | Not detected | | 1200 |
| Chloroform | | | Not detected | | 1200 |
| Chloromethane | | | Not detected | | 1200 |
| cis-1,3-Dichloropropylene | | | Not detected | | 1200 |
| Dibromochloromethane | | | Not detected | | 1200 |
| Dibromomethane | | | Not detected | | 1200 |
| Dichlorodifluoromethane | | | Not detected | | 1200 |
| Methylene chloride | | | 1100 | JB | 2400 |
| Tetrachloroethylene | | | 12000 | | 1200 |
| trans-1,3-Dichloropropylene | | | Not detected | | 1200 |
| Trichloroethylene | | | Not detected | | 1200 |
| Trichlorofluoromethane | | | Not detected | | 1200 |
| Trichloropropane | | | Not detected | | 1200 |
| Vinyl chloride | | | Not detected | | 1200 |
| Total Solids | SM 2540B | % | 84.4 | --- | 1.0 |

| **Client Sample ID** | | | **SB-15 (9.5')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-15** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 10 |
| 1,1,1-Trichloroethane | | | Not detected | | 10 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 10 |
| 1,1,2-Trichloroethane | | | Not detected | | 10 |

| Client Sample ID | | | SB-15 (9.5') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-15** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| 1,1-Dichloroethane | | | Not detected | | 10 |
| 1,1-Dichloroethylene | | | Not detected | | 10 |
| 1,2-Dichlorobenzene | | | Not detected | | 10 |
| 1,2-Dichloroethane | | | Not detected | | 10 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 10 |
| 1,2-Dichloropropane | | | Not detected | | 10 |
| 1,3-Dichlorobenzene | | | Not detected | | 10 |
| 1,4-Dichlorobenzene | | | Not detected | | 10 |
| 2-Chlorotoluene | | | Not detected | | 10 |
| 4-Chlorotoluene | | | Not detected | | 10 |
| Bromobenzene | | | Not detected | | 10 |
| Bromodichloromethane | | | Not detected | | 10 |
| Bromoform | | | Not detected | | 10 |
| Bromomethane | | | Not detected | | 10 |
| Carbon tetrachloride | | | Not detected | | 10 |
| Chlorobenzene | | | Not detected | | 10 |
| Chloroethane | | | Not detected | | 10 |
| Chloroform | | | Not detected | | 10 |
| Chloromethane | | | Not detected | | 10 |
| cis-1,3-Dichloropropylene | | | Not detected | | 10 |
| Dibromochloromethane | | | Not detected | | 10 |
| Dibromomethane | | | Not detected | | 10 |
| Dichlorodifluoromethane | | | Not detected | | 10 |
| Methylene chloride | | | 11 | JB | 21 |
| Tetrachloroethylene | | | 3 | J | 10 |
| trans-1,3-Dichloropropylene | | | Not detected | | 10 |
| Trichloroethylene | | | Not detected | | 10 |
| Trichlorofluoromethane | | | Not detected | | 10 |
| Trichloropropane | | | Not detected | | 10 |
| Vinyl chloride | | | Not detected | | 10 |
| Total Solids | SM 2540B | % | 95.5 | --- | 1.0 |

| Client Sample ID | | | SB-16 (5') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-16** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |

| **Client Sample ID** | | | **SB-16 (5')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-16** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 12 | JB | 22 |
| Tetrachloroethylene | | | 4 | J | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 90.7 | --- | 1.0 |

| **Client Sample ID** | | | **SB-16 (10')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-17** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |

| **Client Sample ID** | | | **SB-16 (10')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-17** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 12 | JB | 21 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 94.0 | --- | 1.0 |

| **Client Sample ID** | | | **WP-7 (3')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-18** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |

| Client Sample ID | | | WP-7 (3') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-18 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 12 | JB | 22 |
| Tetrachloroethylene | | | Not detected | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Trichloropropane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 92.3 | --- | 1.0 |

| Client Sample ID | | | WP-7 (6') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-19 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 14 | JB | 24 |

| **Client Sample ID** | | | **WP-7 (6')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-19** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Tetrachloroethylene | | | Not detected | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Trichloropropane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 83.3 | --- | 1.0 |

| **Client Sample ID** | | | **SB-18 (AQ)** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-20** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8010 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,2-Dichloroethane | | | Not detected | | 5.0 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 5.0 |
| 1,2-Dichloropropane | | | Not detected | | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | | 5.0 |
| 2-Chlorotoluene | | | Not detected | | 5.0 |
| 4-Chlorotoluene | | | Not detected | | 5.0 |
| Bromobenzene | | | Not detected | | 5.0 |
| Bromodichloromethane | | | Not detected | | 5.0 |
| Bromoform | | | Not detected | | 5.0 |
| Bromomethane | | | Not detected | | 5.0 |
| Carbon tetrachloride | | | Not detected | | 5.0 |
| Chloroacetaldehyde | | | Not detected | | 5.0 |
| Chlorobenzene | | | Not detected | | 5.0 |
| Chloroethane | | | Not detected | | 5.0 |
| Chloroform | | | Not detected | | 5.0 |
| Chloromethane | | | Not detected | | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Dibromochloromethane | | | Not detected | | 5.0 |
| Dibromomethane | | | Not detected | | 5.0 |
| Dichlorodifluoromethane | | | Not detected | | 5.0 |
| Methylene chloride | | | 4 | JB | 10.0 |
| Tetrachloroethylene | | | 4 | J | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Trichloroethylene | | | Not detected | | 5.0 |
| Trichlorofluoromethane | | | Not detected | | 5.0 |
| Trichloropropane | | | Not detected | | 5.0 |

| Client Sample ID | | | SB-18 (AQ) | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-20 | | |
| Matrix | | | WATER | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Vinyl chloride | | | Not detected | | 5.0 |

| Client Sample ID | | | WP-2 | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-21 | | |
| Matrix | | | WATER | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8010 List** | SW846-8010 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,2-Dichloroethane | | | Not detected | | 5.0 |
| 1,2-Dichloroethylene (Total) | | | 4(cis-) | J | 5.0 |
| 1,2-Dichloropropane | | | Not detected | | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | | 5.0 |
| 2-Chlorotoluene | | | Not detected | | 5.0 |
| 4-Chlorotoluene | | | Not detected | | 5.0 |
| Bromobenzene | | | Not detected | | 5.0 |
| Bromodichloromethane | | | Not detected | | 5.0 |
| Bromoform | | | Not detected | | 5.0 |
| Bromomethane | | | Not detected | | 5.0 |
| Carbon tetrachloride | | | Not detected | | 5.0 |
| Chloroacetaldehyde | | | Not detected | | 5.0 |
| Chlorobenzene | | | Not detected | | 5.0 |
| Chloroethane | | | Not detected | | 5.0 |
| Chloroform | | | Not detected | | 5.0 |
| Chloromethane | | | Not detected | | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Dibromochloromethane | | | Not detected | | 5.0 |
| Dibromomethane | | | Not detected | | 5.0 |
| Dichlorodifluoromethane | | | Not detected | | 5.0 |
| Methylene chloride | | | 3 | JB | 10.0 |
| Tetrachloroethylene | | | 96 | | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Trichloroethylene | | | 18 | | 5.0 |
| Trichlorofluoromethane | | | Not detected | | 5.0 |
| Trichloropropane | | | Not detected | | 5.0 |
| Vinyl chloride | | | Not detected | | 5.0 |

| **Client Sample ID** | | | **WP-3** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-22** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8010 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,2-Dichloroethane | | | Not detected | | 5.0 |
| 1,2-Dichloroethylene (Total) | | | 3(cis-) | J | 5.0 |
| 1,2-Dichloropropane | | | Not detected | | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | | 5.0 |
| 2-Chlorotoluene | | | Not detected | | 5.0 |
| 4-Chlorotoluene | | | Not detected | | 5.0 |
| Bromobenzene | | | Not detected | | 5.0 |
| Bromodichloromethane | | | Not detected | | 5.0 |
| Bromoform | | | Not detected | | 5.0 |
| Bromomethane | | | Not detected | | 5.0 |
| Carbon tetrachloride | | | Not detected | | 5.0 |
| Chloroacetaldehyde | | | Not detected | | 5.0 |
| Chlorobenzene | | | Not detected | | 5.0 |
| Chloroethane | | | Not detected | | 5.0 |
| Chloroform | | | Not detected | | 5.0 |
| Chloromethane | | | Not detected | | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Dibromochloromethane | | | Not detected | | 5.0 |
| Dibromomethane | | | Not detected | | 5.0 |
| Dichlorodifluoromethane | | | Not detected | | 5.0 |
| Methylene chloride | | | 3 | JB | 10.0 |
| Tetrachloroethylene | | | 25 | | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Trichloroethylene | | | 3 | J | 5.0 |
| Trichlorofluoromethane | | | Not detected | | 5.0 |
| Trichloropropane | | | Not detected | | 5.0 |
| Vinyl chloride | | | Not detected | | 5.0 |

| **Client Sample ID** | | | **WP-4** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-23** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8010 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethane | | | Not detected | | 5.0 |

| **Client Sample ID** | | | **WP-4** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-23** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| 1,1-Dichloroethylene | | | Not detected | | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,2-Dichloroethane | | | Not detected | | 5.0 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 5.0 |
| 1,2-Dichloropropane | | | Not detected | | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | | 5.0 |
| 2-Chlorotoluene | | | Not detected | | 5.0 |
| 4-Chlorotoluene | | | Not detected | | 5.0 |
| Bromobenzene | | | Not detected | | 5.0 |
| Bromodichloromethane | | | Not detected | | 5.0 |
| Bromoform | | | Not detected | | 5.0 |
| Bromomethane | | | Not detected | | 5.0 |
| Carbon tetrachloride | | | Not detected | | 5.0 |
| Chloroacetaldehyde | | | Not detected | | 5.0 |
| Chlorobenzene | | | Not detected | | 5.0 |
| Chloroethane | | | Not detected | | 5.0 |
| Chloroform | | | Not detected | | 5.0 |
| Chloromethane | | | Not detected | | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Dibromochloromethane | | | Not detected | | 5.0 |
| Dibromomethane | | | Not detected | | 5.0 |
| Dichlorodifluoromethane | | | Not detected | | 5.0 |
| Methylene chloride | | | 3 | JB | 10.0 |
| Tetrachloroethylene | | | 9 | | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Trichloroethylene | | | 2 | J | 5.0 |
| Trichlorofluoromethane | | | Not detected | | 5.0 |
| Trichloropropane | | | Not detected | | 5.0 |
| Vinyl chloride | | | Not detected | | 5.0 |

| **Client Sample ID** | | | **WP-5** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-24** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8010 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,2-Dichloroethane | | | Not detected | | 5.0 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 5.0 |
| 1,2-Dichloropropane | | | Not detected | | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | | 5.0 |

| Client Sample ID | | | WP-5 | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-24** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| 1,4-Dichlorobenzene | | | Not detected | | 5.0 |
| 2-Chlorotoluene | | | Not detected | | 5.0 |
| 4-Chlorotoluene | | | Not detected | | 5.0 |
| Bromobenzene | | | Not detected | | 5.0 |
| Bromodichloromethane | | | Not detected | | 5.0 |
| Bromoform | | | Not detected | | 5.0 |
| Bromomethane | | | Not detected | | 5.0 |
| Carbon tetrachloride | | | Not detected | | 5.0 |
| Chloroacetaldehyde | | | Not detected | | 5.0 |
| Chlorobenzene | | | Not detected | | 5.0 |
| Chloroethane | | | Not detected | | 5.0 |
| Chloroform | | | Not detected | | 5.0 |
| Chloromethane | | | Not detected | | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Dibromochloromethane | | | Not detected | | 5.0 |
| Dibromomethane | | | Not detected | | 5.0 |
| Dichlorodifluoromethane | | | Not detected | | 5.0 |
| Methylene chloride | | | 3 | JB | 10.0 |
| Tetrachloroethylene | | | 2 | J | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Trichloroethylene | | | Not detected | | 5.0 |
| Trichlorofluoromethane | | | Not detected | | 5.0 |
| Trichloropropane | | | Not detected | | 5.0 |
| Vinyl chloride | | | Not detected | | 5.0 |

| Client Sample ID | | | WP-6 | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-25** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8010 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 25 |
| 1,1,1-Trichloroethane | | | Not detected | | 25 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 25 |
| 1,1,2-Trichloroethane | | | Not detected | | 25 |
| 1,1-Dichloroethane | | | Not detected | | 25 |
| 1,1-Dichloroethylene | | | Not detected | | 25 |
| 1,2-Dichlorobenzene | | | Not detected | | 25 |
| 1,2-Dichloroethane | | | Not detected | | 25 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 25 |
| 1,2-Dichloropropane | | | Not detected | | 25 |
| 1,3-Dichlorobenzene | | | Not detected | | 25 |
| 1,4-Dichlorobenzene | | | Not detected | | 25 |
| 2-Chlorotoluene | | | Not detected | | 25 |
| 4-Chlorotoluene | | | Not detected | | 25 |
| Bromobenzene | | | Not detected | | 25 |
| Bromodichloromethane | | | Not detected | | 25 |
| Bromoform | | | Not detected | | 25 |

| Client Sample ID | | | WP-6 | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-25 | | |
| Matrix | | | WATER | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Bromomethane | | | Not detected | | 25 |
| Carbon tetrachloride | | | Not detected | | 25 |
| Chloroacetaldehyde | | | Not detected | | 25 |
| Chlorobenzene | | | Not detected | | 25 |
| Chloroethane | | | Not detected | | 25 |
| Chloroform | | | Not detected | | 25 |
| Chloromethane | | | Not detected | | 25 |
| cis-1,3-Dichloropropylene | | | Not detected | | 25 |
| Dibromochloromethane | | | Not detected | | 25 |
| Dibromomethane | | | Not detected | | 25 |
| Dichlorodifluoromethane | | | Not detected | | 25 |
| Methylene chloride | | | 14 | JB | 50 |
| Tetrachloroethylene | | | 930 | | 25 |
| trans-1,3-Dichloropropylene | | | Not detected | | 25 |
| Trichloroethylene | | | Not detected | | 25 |
| Trichlorofluoromethane | | | Not detected | | 25 |
| Trichloropropane | | | Not detected | | 25 |
| Vinyl chloride | | | Not detected | | 25 |

| Client Sample ID | | | WP-7 | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-26 | | |
| Matrix | | | WATER | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8010 List** | SW846-8010 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,2-Dichloroethane | | | Not detected | | 5.0 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 5.0 |
| 1,2-Dichloropropane | | | Not detected | | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | | 5.0 |
| 2-Chlorotoluene | | | Not detected | | 5.0 |
| 4-Chlorotoluene | | | Not detected | | 5.0 |
| Bromobenzene | | | Not detected | | 5.0 |
| Bromodichloromethane | | | Not detected | | 5.0 |
| Bromoform | | | Not detected | | 5.0 |
| Bromomethane | | | Not detected | | 5.0 |
| Carbon tetrachloride | | | Not detected | | 5.0 |
| Chloroacetaldehyde | | | Not detected | | 5.0 |
| Chlorobenzene | | | Not detected | | 5.0 |
| Chloroethane | | | Not detected | | 5.0 |
| Chloroform | | | Not detected | | 5.0 |

| **Client Sample ID** | | | **WP-7** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-26** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Chloromethane | | | Not detected | | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Dibromochloromethane | | | Not detected | | 5.0 |
| Dibromomethane | | | Not detected | | 5.0 |
| Dichlorodifluoromethane | | | Not detected | | 5.0 |
| Methylene chloride | | | 3 | JB | 10.0 |
| Tetrachloroethylene | | | 53 | | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Trichloroethylene | | | Not detected | | 5.0 |
| Trichlorofluoromethane | | | Not detected | | 5.0 |
| Trichloropropane | | | Not detected | | 5.0 |
| Vinyl chloride | | | Not detected | | 5.0 |

| **Client Sample ID** | | | **MW-2** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-27** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8010 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,2-Dichloroethane | | | Not detected | | 5.0 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 5.0 |
| 1,2-Dichloropropane | | | Not detected | | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | | 5.0 |
| 2-Chlorotoluene | | | Not detected | | 5.0 |
| 4-Chlorotoluene | | | Not detected | | 5.0 |
| Bromobenzene | | | Not detected | | 5.0 |
| Bromodichloromethane | | | Not detected | | 5.0 |
| Bromoform | | | Not detected | | 5.0 |
| Bromomethane | | | Not detected | | 5.0 |
| Carbon tetrachloride | | | Not detected | | 5.0 |
| Chloroacetaldehyde | | | Not detected | | 5.0 |
| Chlorobenzene | | | Not detected | | 5.0 |
| Chloroethane | | | Not detected | | 5.0 |
| Chloroform | | | 1 | J | 5.0 |
| Chloromethane | | | Not detected | | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Dibromochloromethane | | | Not detected | | 5.0 |
| Dibromomethane | | | Not detected | | 5.0 |
| Dichlorodifluoromethane | | | Not detected | | 5.0 |
| Methylene chloride | | | 3 | JB | 10.0 |

| **Client Sample ID** | | | **MW-2** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-27** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Tetrachloroethylene | | | 22 | | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Trichloroethylene | | | Not detected | | 5.0 |
| Trichlorofluoromethane | | | Not detected | | 5.0 |
| Trichloropropane | | | Not detected | | 5.0 |
| Vinyl chloride | | | Not detected | | 5.0 |

| **Client Sample ID** | | | **MW-3** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-28** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8010 List** | SW846-8010 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,2-Dichloroethane | | | Not detected | | 5.0 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 5.0 |
| 1,2-Dichloropropane | | | Not detected | | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | | 5.0 |
| 2-Chlorotoluene | | | Not detected | | 5.0 |
| 4-Chlorotoluene | | | Not detected | | 5.0 |
| Bromobenzene | | | Not detected | | 5.0 |
| Bromodichloromethane | | | Not detected | | 5.0 |
| Bromoform | | | Not detected | | 5.0 |
| Bromomethane | | | Not detected | | 5.0 |
| Carbon tetrachloride | | | Not detected | | 5.0 |
| Chloroacetaldehyde | | | Not detected | | 5.0 |
| Chlorobenzene | | | Not detected | | 5.0 |
| Chloroethane | | | Not detected | | 5.0 |
| Chloroform | | | Not detected | | 5.0 |
| Chloromethane | | | Not detected | | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Dibromochloromethane | | | Not detected | | 5.0 |
| Dibromomethane | | | Not detected | | 5.0 |
| Dichlorodifluoromethane | | | Not detected | | 5.0 |
| Methylene chloride | | | 3 | JB | 10.0 |
| Tetrachloroethylene | | | 3 | J | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Trichloroethylene | | | Not detected | | 5.0 |
| Trichlorofluoromethane | | | Not detected | | 5.0 |
| Trichloropropane | | | Not detected | | 5.0 |
| Vinyl chloride | | | Not detected | | 5.0 |

| Client Sample ID | | | MW-4 | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-29 | | |
| Matrix | | | WATER | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8010 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 25 |
| 1,1,1-Trichloroethane | | | Not detected | | 25 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 25 |
| 1,1,2-Trichloroethane | | | Not detected | | 25 |
| 1,1-Dichloroethane | | | Not detected | | 25 |
| 1,1-Dichloroethylene | | | Not detected | | 25 |
| 1,2-Dichlorobenzene | | | Not detected | | 25 |
| 1,2-Dichloroethane | | | Not detected | | 25 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 25 |
| 1,2-Dichloropropane | | | Not detected | | 25 |
| 1,3-Dichlorobenzene | | | Not detected | | 25 |
| 1,4-Dichlorobenzene | | | Not detected | | 25 |
| 2-Chlorotoluene | | | Not detected | | 25 |
| 4-Chlorotoluene | | | Not detected | | 25 |
| Bromobenzene | | | Not detected | | 25 |
| Bromodichloromethane | | | Not detected | | 25 |
| Bromoform | | | Not detected | | 25 |
| Bromomethane | | | Not detected | | 25 |
| Carbon tetrachloride | | | Not detected | | 25 |
| Chloroacetaldehyde | | | Not detected | | 25 |
| Chlorobenzene | | | Not detected | | 25 |
| Chloroethane | | | Not detected | | 25 |
| Chloroform | | | Not detected | | 25 |
| Chloromethane | | | Not detected | | 25 |
| cis-1,3-Dichloropropylene | | | Not detected | | 25 |
| Dibromochloromethane | | | Not detected | | 25 |
| Dibromomethane | | | Not detected | | 25 |
| Dichlorodifluoromethane | | | Not detected | | 25 |
| Methylene chloride | | | 17 | JB | 50 |
| Tetrachloroethylene | | | 340 | | 25 |
| trans-1,3-Dichloropropylene | | | Not detected | | 25 |
| Trichloroethylene | | | 7 | J | 25 |
| Trichlorofluoromethane | | | Not detected | | 25 |
| Trichloropropane | | | Not detected | | 25 |
| Vinyl chloride | | | Not detected | | 25 |

| Client Sample ID | | | DELI SUMP | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-30 | | |
| Matrix | | | WATER | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Volatiles, 8010 List | SW846-8010 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 5.0 |

| **Client Sample ID** | | | **DELI SUMP** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-30** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| 1,1,2-Trichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,2-Dichloroethane | | | Not detected | | 5.0 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 5.0 |
| 1,2-Dichloropropane | | | Not detected | | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | | 5.0 |
| 2-Chlorotoluene | | | Not detected | | 5.0 |
| 4-Chlorotoluene | | | Not detected | | 5.0 |
| Bromobenzene | | | Not detected | | 5.0 |
| Bromodichloromethane | | | Not detected | | 5.0 |
| Bromoform | | | Not detected | | 5.0 |
| Bromomethane | | | Not detected | | 5.0 |
| Carbon tetrachloride | | | Not detected | | 5.0 |
| Chloroacetaldehyde | | | Not detected | | 5.0 |
| Chlorobenzene | | | Not detected | | 5.0 |
| Chloroethane | | | Not detected | | 5.0 |
| Chloroform | | | 5 | J | 5.0 |
| Chloromethane | | | Not detected | | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Dibromochloromethane | | | Not detected | | 5.0 |
| Dibromomethane | | | Not detected | | 5.0 |
| Dichlorodifluoromethane | | | Not detected | | 5.0 |
| Methylene chloride | | | 6 | JB | 10.0 |
| Tetrachloroethylene | | | 9 | | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Trichloroethylene | | | Not detected | | 5.0 |
| Trichlorofluoromethane | | | Not detected | | 5.0 |
| Trichloropropane | | | Not detected | | 5.0 |
| Vinyl chloride | | | Not detected | | 5.0 |

| **Client Sample ID** | | | **WP-1** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08110799-31** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8260 List + MTBE** | SW846-8260 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | | 5.0 |
| 1,1-Dichloropropylene | | | Not detected | | 5.0 |
| 1,2,3-Trichlorobenzene | | | Not detected | | 5.0 |
| 1,2,3-Trichloropropane | | | Not detected | | 5.0 |

| Client Sample ID | | | WP-1 | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08110799-31 | | |
| Matrix | | | WATER | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| 1,2,4-Trichlorobenzene | | | Not detected | | 5.0 |
| 1,2,4-Trimethylbenzene | | | Not detected | | 5.0 |
| 1,2-Dibromo-3-chloropropane | | | Not detected | | 5.0 |
| 1,2-Dibromoethane | | | Not detected | | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,2-Dichloroethane | | | Not detected | | 5.0 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 5.0 |
| 1,2-Dichloropropane | | | Not detected | | 5.0 |
| 1,3,5-Trimethylbenzene | | | Not detected | | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,3-Dichloropropane | | | Not detected | | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | | 5.0 |
| 2,2-Dichloropropane | | | Not detected | | 5.0 |
| 2-Chlorotoluene | | | Not detected | | 5.0 |
| 4-Chlorotoluene | | | Not detected | | 5.0 |
| Benzene | | | Not detected | | 5.0 |
| Bromobenzene | | | Not detected | | 5.0 |
| Bromochloromethane | | | Not detected | | 5.0 |
| Bromodichloromethane | | | Not detected | | 5.0 |
| Bromoform | | | Not detected | | 5.0 |
| Bromomethane | | | Not detected | | 5.0 |
| Carbon tetrachloride | | | Not detected | | 5.0 |
| Chlorobenzene | | | Not detected | | 5.0 |
| Chloroethane | | | Not detected | | 5.0 |
| Chloroform | | | Not detected | | 5.0 |
| Chloromethane | | | Not detected | | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Dibromochloromethane | | | Not detected | | 5.0 |
| Dibromomethane | | | Not detected | | 5.0 |
| Dichlorodifluoromethane | | | Not detected | | 5.0 |
| Ethylbenzene | | | Not detected | | 5.0 |
| Hexachlorobutadiene | | | Not detected | | 5.0 |
| Isopropylbenzene | | | Not detected | | 5.0 |
| Methyl tert-butyl ether (MTBE) | | | Not detected | | 5.0 |
| Methylene chloride | | | 3 | JB | 10.0 |
| Naphthalene | | | Not detected | | 10.0 |
| n-Butylbenzene | | | Not detected | | 5.0 |
| n-Propylbenzene | | | Not detected | | 5.0 |
| o-Xylene | | | Not detected | | 5.0 |
| p- & m-Xylenes | | | Not detected | | 5.0 |
| p-Isopropyltoluene | | | Not detected | | 5.0 |
| sec-Butylbenzene | | | Not detected | | 5.0 |
| Styrene | | | Not detected | | 5.0 |
| tert-Butylbenzene | | | Not detected | | 5.0 |
| Tetrachloroethylene | | | 9 | | 5.0 |
| Toluene | | | Not detected | | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Trichloroethylene | | | Not detected | | 5.0 |

| Client Sample ID |  |  | WP-1 |  |  |
|---|---|---|---|---|---|
| York Sample ID |  |  | 08110799-31 |  |  |
| Matrix |  |  | WATER |  |  |
| Parameter | Method | Units | Result | Qualifier | RL |
| Trichlorofluoromethane |  |  | Not detected |  | 5.0 |
| Vinyl chloride |  |  | Not detected |  | 5.0 |

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

## Notes for York Project No. 08110799

1. The "RL" is the REPORTING LIMIT and is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This REPORTING LIMIT is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.
8. Other attachments to this report, including Chain-of-custody documentation and Case narratives are hereby made a part of this report.

**Approved By:** Robert Q. Bradley
Managing Director

**Date:** 12/2/2008

**YORK**
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

Page 1 of 4

08110799

| Company Name | Report To: | Invoice To: | Project ID/No. | |
|---|---|---|---|---|
| Jade Environmental Inc. | Dave Pelletier | Same | Clinton Terrace | Samples ~~Collected~~ By (Signature)<br>Dave Pelletier<br>Name (Printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix | | | | ANALYSES REQUESTED | Container Description(s) |
|---|---|---|---|---|---|---|---|---|
| | | | Water | Soil | Air | OTHER | | |
| 1 | Big Top Sump | 11/19/08 | | ✓ | | | Chlorinated Solvents (EPA 8010) | 2oz |
| | SB-9 (3') | | | | | | | |
| | SB-9 (11') | | | | | | | |
| | SB-10 (3') | | | | | | | |
| | SB-11 (3') | | | | | | | |
| | SB-12 (3') | | | | | | | |
| | WP 6 (1'-2') | | | | | | | |
| | WP-6 (8') | | | | | | | |
| 9 | SB-18 (3') | | | | | | | |
| | | | | | | | | |

**Chain-of-Custody Record**

| | | | | | |
|---|---|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Sample Relinquished by | Date/Time | Sample Received by | 11-21-08 11:30<br>Date/Time |
| Bottles Received in Field by | Date/Time | Sample Relinquished by | 11/21/08<br>Date/Time | Sample Received in LAB by | 11-21-08/1620<br>Date/Time |

Comments/Special Instructions Level B reporting 3.8°C

**Turn-Around Time**
____ Standard ✓ RUSH(define) mon ~~[illegible]~~ Dec. 1 5pm

**YORK**
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

Page 2 of ~~3~~ 4

08110799

| Company Name | Report To: | Invoice To: | Project ID/No. | |
|---|---|---|---|---|
| Jade Environmental, Inc. | D. Pelletier | Same | Clinton Terrace | Samples Collected By (Signature)<br>D. Pelletier<br>Name (Printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix: Water | Soil | Air | OTHER | ANALYSES REQUESTED | Container Description(s) |
|---|---|---|---|---|---|---|---|---|
| 1 | SB-13 (5') | 11/20/08 | | ✓ | | | Chlorinated lst EPA 8010 | 2/4 oz |
| | SB-13 (9.5') | | | | | | | |
| | SB-14 (5) | | | | | | | |
| | SB-14 (10') | | | | | | | |
| | SB-15 (5) | | | | | | | |
| | SB-15 (9.5') | | | | | | | |
| | SB-16 (5') | | | | | | | |
| | SB-16 (10') | | | | | | | |
| | WP-7 (3') | | | | | | | |
| 10 | WP-7 (6') | | | | | | | |

**Chain-of-Custody Record**

| | | | | | |
|---|---|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Sample Relinquished by | Date/Time | Sample Received by | Date/Time 11-21-08 11:30 |
| Bottles Received in Field by | Date/Time | Sample Relinquished by | Date/Time 11/21/08 | Sample Received in LAB by | Date/Time 11-21-08/1620 |

*Comments/Special Instructions*

3.8 °C

**Turn-Around Time**

___ Standard ✓ RUSH(define) Mon Dec 1 5pm

**YORK**
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

Page 3 of 4

0811079

| Company Name | Report To: | Invoice To: | Project ID/No. | |
|---|---|---|---|---|
| Jade Environmental, Inc. | D. Pelletier | Same | Clinton Terrace | Samples Collected By (Signature)<br>D. Pelletier<br>Name (Printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix Water | Soil | Air | OTHER | ANALYSES REQUESTED | Container Description(s) |
|---|---|---|---|---|---|---|---|---|
| 1 | SB-18 (aq) | 11/20/08 | ✓ | | | | Chlorinated list EPA 8010 | 2-40mls |
| | WP-2 | | | | | | | |
| | WP-3 | | | | | | | |
| | WP-4 | | | | | | | |
| | WP-5 | | | | | | | |
| | WP-6 | | | | | | | |
| | WP-7 | | | | | | | |
| | MW-2 | | | | | | | |
| | MW-3 | | | | | | | |
| 10 | MW-4 | | | | | | | |

**Chain-of-Custody Record**

| | | | | | |
|---|---|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Sample Relinquished by | Date/Time | Sample Received by | Date/Time 11-21-08 11:30 |
| Bottles Received in Field by | Date/Time | Sample Relinquished by | Date/Time | Sample Received in LAB by | Date/Time 11-21-08 / 1620 |

Comments/Special Instructions

Level B Package

3.8 °C

**Turn-Around Time**

____Standard ____RUSH(define) Dec 1 5pm

**YORK**
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

1

# Field Chain-of-Custody Record

Page 4 of 4

08110799

| Company Name | Report To: | Invoice To: | Project ID/No. | |
|---|---|---|---|---|
| Jade Environmental, Inc. | D. Pelletier | Sam | Clinton Terrace | Samples Collected By (Signature)<br>Dave Pelletier<br>Name (Printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix | | | | ANALYSES REQUESTED | Container Description(s) |
|---|---|---|---|---|---|---|---|---|
| | | | Water | Soil | Air | OTHER | | |
| 1 | Deli Sump | 11/19/08 | ✓ | | | | Chlorinated List 8010 | 2-40ml |
| 2 | WP-1 | 11/20/08 | ✓ | | | | Full list 8260 + MTBE | 2-40ml |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**Chain-of-Custody Record**

| | | | | | |
|---|---|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Sample Relinquished by | Date/Time | Sample Received by | 11-21-08 11:30<br>Date/Time |
| Bottles Received in Field by | Date/Time | Sample Relinquished by | Date/Time | Sample Received in LAB by | 11-21-08/1620<br>Date/Time |

*Comments/Special Instructions*

3.8°C

***Turn-Around Time***

____ Standard ✓ RUSH(define) Dou 5pm

**YORK**
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

Page 5 of 5
Continu

08110799

**Company Name** Jade

**Report To:** D. Pellegrino

**Invoice To:** Same

**Project ID/No.** Clinton Terrace

Samples Collected By (Signature)

Dave Pellegrino
Name (Printed)

| Sample No. | Location/ID | Date Sampled | Sample Matrix | | | | ANALYSES REQUESTED | Container Description(s) |
|---|---|---|---|---|---|---|---|---|
| | | | Water | Soil | Air | OTHER | | |
| | WP-1 | 11/20 | ✓ | | | | 8260 + MTBE | 2 - 40ml |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**Chain-of-Custody Record**

Bottles Relinquished from Lab by ______ Date/Time ______

Bottles Received in Field by ______ Date/Time ______

Sample Relinquished by ______ Date/Time ______

Sample Relinquished by ______ Date/Time ______

Sample Received by ______ Date/Time 11-24-08 10:40

Sample Received in LAB by ______ Date/Time ______

Comments/Special Instructions * Please include with samples picked up 11/21 for this project

**Turn-Around Time**
___ Standard ✓ RUSH(define) Dec 1 5pm

# Appendix H – Laboratory Analysis
# Sampling Event 3

**YORK**
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for:

**Jade Environmental, Inc.**
**59 Circle Drive**
**Hopewell Junction, NY 12533**
**Attention: Mr. Dave Pelletier**

Report Date: 12/10/2008
*Re: Client Project ID: Clinton Terrace*
York Project No.: 08120078

CT License No. PH-0723 New Jersey License No. CT-005 New York License No. 10854

Report Date: 12/10/2008
Client Project ID: Clinton Terrace
York Project No.: 08120078

**Jade Environmental, Inc.**
59 Circle Drive
Hopewell Junction, NY 12533
Attention: Mr. Dave Pelletier

---

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 12/01/08. The project was identified as your project "Clinton Terrace".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

### *Analysis Results*

| **Client Sample ID** | | | **WP-8 3'** | | **WP-8 12'** | |
|---|---|---|---|---|---|---|
| **York Sample ID** | | | **08120078-01** | | **08120078-02** | |
| **Matrix** | | | **SOIL** | | **SOIL** | |
| **Parameter** | **Method** | **Units** | **Results** | **MDL** | **Results** | **MDL** |
| **Volatiles, 8010 List** | SW846-8260 | ug/Kg | --- | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | 10 | Not detected | 10 |
| 1,1,1-Trichloroethane | | | Not detected | 10 | Not detected | 10 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | 10 | Not detected | 10 |
| 1,1,2-Trichloroethane | | | Not detected | 10 | Not detected | 10 |
| 1,1-Dichloroethane | | | Not detected | 10 | Not detected | 10 |
| 1,1-Dichloroethylene | | | Not detected | 10 | Not detected | 10 |
| 1,2-Dichlorobenzene | | | Not detected | 10 | Not detected | 10 |
| 1,2-Dichloroethane | | | Not detected | 10 | Not detected | 10 |
| 1,2-Dichloroethylene (Total) | | | Not detected | 10 | Not detected | 10 |
| 1,2-Dichloropropane | | | Not detected | 10 | Not detected | 10 |
| 1,3-Dichlorobenzene | | | Not detected | 10 | Not detected | 10 |
| 1,4-Dichlorobenzene | | | Not detected | 10 | Not detected | 10 |
| 2-Chlorotoluene | | | Not detected | 10 | Not detected | 10 |
| 4-Chlorotoluene | | | Not detected | 10 | Not detected | 10 |
| Bromobenzene | | | Not detected | 10 | Not detected | 10 |
| Bromodichloromethane | | | Not detected | 10 | Not detected | 10 |
| Bromoform | | | Not detected | 10 | Not detected | 10 |

| Client Sample ID | | | WP-8 3' | | WP-8 12' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 08120078-01 | | 08120078-02 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Bromomethane | | | Not detected | 10 | Not detected | 10 |
| Carbon tetrachloride | | | Not detected | 10 | Not detected | 10 |
| Chlorobenzene | | | Not detected | 10 | Not detected | 10 |
| Chloroethane | | | Not detected | 10 | Not detected | 10 |
| Chloroform | | | Not detected | 10 | Not detected | 10 |
| Chloromethane | | | Not detected | 10 | Not detected | 10 |
| cis-1,3-Dichloropropylene | | | Not detected | 10 | Not detected | 10 |
| Dibromochloromethane | | | Not detected | 10 | Not detected | 10 |
| Dibromomethane | | | Not detected | 10 | Not detected | 10 |
| Dichlorodifluoromethane | | | Not detected | 10 | Not detected | 10 |
| Methylene chloride | | | Not detected | 10 | Not detected | 10 |
| Tetrachloroethylene | | | Not detected | 10 | Not detected | 10 |
| trans-1,3-Dichloropropylene | | | Not detected | 10 | Not detected | 10 |
| Trichloroethylene | | | Not detected | 10 | Not detected | 10 |
| Trichlorofluoromethane | | | Not detected | 10 | Not detected | 10 |
| Trichloropropane | | | Not detected | 10 | Not detected | 10 |
| Vinyl chloride | | | Not detected | 10 | Not detected | 10 |

| Client Sample ID | | | WP-8 | |
|---|---|---|---|---|
| York Sample ID | | | 08120078-03 | |
| Matrix | | | WATER | |
| Parameter | Method | Units | Results | MDL |
| Volatiles, 8010 List | SW846-8010 | ug/L | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | 50 |
| 1,1,1-Trichloroethane | | | Not detected | 50 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | 50 |
| 1,1,2-Trichloroethane | | | Not detected | 50 |
| 1,1-Dichloroethane | | | Not detected | 50 |
| 1,1-Dichloroethylene | | | Not detected | 50 |
| 1,2-Dichlorobenzene | | | Not detected | 50 |
| 1,2-Dichloroethane | | | Not detected | 50 |
| 1,2-Dichloroethylene (Total) | | | Not detected | 50 |
| 1,2-Dichloropropane | | | Not detected | 50 |
| 1,3-Dichlorobenzene | | | Not detected | 50 |
| 1,4-Dichlorobenzene | | | Not detected | 50 |
| 2-Chlorotoluene | | | Not detected | 50 |
| 4-Chlorotoluene | | | Not detected | 50 |
| Bromobenzene | | | Not detected | 50 |
| Bromodichloromethane | | | Not detected | 50 |
| Bromoform | | | Not detected | 50 |
| Bromomethane | | | Not detected | 50 |
| Carbon tetrachloride | | | Not detected | 50 |
| Chloroacetaldehyde | | | Not detected | 50 |
| Chlorobenzene | | | Not detected | 50 |
| Chloroethane | | | Not detected | 50 |
| Chloroform | | | Not detected | 50 |
| Chloromethane | | | Not detected | 50 |
| cis-1,3-Dichloropropylene | | | Not detected | 50 |
| Dibromochloromethane | | | Not detected | 50 |

| Client Sample ID | | | WP-8 | |
|---|---|---|---|---|
| York Sample ID | | | 08120078-03 | |
| Matrix | | | WATER | |
| Parameter | Method | Units | Results | MDL |
| Dibromomethane | | | Not detected | 50 |
| Dichlorodifluoromethane | | | Not detected | 50 |
| Methylene chloride | | | Not detected | 50 |
| Tetrachloroethylene | | | 800 | 50 |
| trans-1,3-Dichloropropylene | | | Not detected | 50 |
| Trichloroethylene | | | Not detected | 50 |
| Trichlorofluoromethane | | | Not detected | 50 |
| Trichloropropane | | | Not detected | 50 |
| Vinyl chloride | | | Not detected | 50 |

| Client Sample ID | | | WP-9 3' | |
|---|---|---|---|---|
| York Sample ID | | | 08120078-04 | |
| Matrix | | | SOIL | |
| Parameter | Method | Units | Results | MDL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | 10 |
| 1,1,1-Trichloroethane | | | Not detected | 10 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | 10 |
| 1,1,2-Trichloroethane | | | Not detected | 10 |
| 1,1-Dichloroethane | | | Not detected | 10 |
| 1,1-Dichloroethylene | | | Not detected | 10 |
| 1,2-Dichlorobenzene | | | Not detected | 10 |
| 1,2-Dichloroethane | | | Not detected | 10 |
| 1,2-Dichloroethylene (Total) | | | Not detected | 10 |
| 1,2-Dichloropropane | | | Not detected | 10 |
| 1,3-Dichlorobenzene | | | Not detected | 10 |
| 1,4-Dichlorobenzene | | | Not detected | 10 |
| 2-Chlorotoluene | | | Not detected | 10 |
| 4-Chlorotoluene | | | Not detected | 10 |
| Bromobenzene | | | Not detected | 10 |
| Bromodichloromethane | | | Not detected | 10 |
| Bromoform | | | Not detected | 10 |
| Bromomethane | | | Not detected | 10 |
| Carbon tetrachloride | | | Not detected | 10 |
| Chlorobenzene | | | Not detected | 10 |
| Chloroethane | | | Not detected | 10 |
| Chloroform | | | Not detected | 10 |
| Chloromethane | | | Not detected | 10 |
| cis-1,3-Dichloropropylene | | | Not detected | 10 |
| Dibromochloromethane | | | Not detected | 10 |
| Dibromomethane | | | Not detected | 10 |
| Dichlorodifluoromethane | | | Not detected | 10 |
| Methylene chloride | | | Not detected | 10 |
| Tetrachloroethylene | | | Not detected | 10 |
| trans-1,3-Dichloropropylene | | | Not detected | 10 |
| Trichloroethylene | | | Not detected | 10 |
| Trichlorofluoromethane | | | Not detected | 10 |
| Trichloropropane | | | Not detected | 10 |
| Vinyl chloride | | | Not detected | 10 |

| Client Sample ID | | | WP-9 12' | |
|---|---|---|---|---|
| York Sample ID | | | 08120078-05 | |
| Matrix | | | SOIL | |
| Parameter | Method | Units | Results | MDL |
| Volatiles, 8010 List | SW846-8260 | ug/Kg | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | 10 |
| 1,1,1-Trichloroethane | | | Not detected | 10 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | 10 |
| 1,1,2-Trichloroethane | | | Not detected | 10 |
| 1,1-Dichloroethane | | | Not detected | 10 |
| 1,1-Dichloroethylene | | | Not detected | 10 |
| 1,2-Dichlorobenzene | | | Not detected | 10 |
| 1,2-Dichloroethane | | | Not detected | 10 |
| 1,2-Dichloroethylene (Total) | | | Not detected | 10 |
| 1,2-Dichloropropane | | | Not detected | 10 |
| 1,3-Dichlorobenzene | | | Not detected | 10 |
| 1,4-Dichlorobenzene | | | Not detected | 10 |
| 2-Chlorotoluene | | | Not detected | 10 |
| 4-Chlorotoluene | | | Not detected | 10 |
| Bromobenzene | | | Not detected | 10 |
| Bromodichloromethane | | | Not detected | 10 |
| Bromoform | | | Not detected | 10 |
| Bromomethane | | | Not detected | 10 |
| Carbon tetrachloride | | | Not detected | 10 |
| Chlorobenzene | | | Not detected | 10 |
| Chloroethane | | | Not detected | 10 |
| Chloroform | | | Not detected | 10 |
| Chloromethane | | | Not detected | 10 |
| cis-1,3-Dichloropropylene | | | Not detected | 10 |
| Dibromochloromethane | | | Not detected | 10 |
| Dibromomethane | | | Not detected | 10 |
| Dichlorodifluoromethane | | | Not detected | 10 |
| Methylene chloride | | | Not detected | 10 |
| Tetrachloroethylene | | | Not detected | 10 |
| trans-1,3-Dichloropropylene | | | Not detected | 10 |
| Trichloroethylene | | | Not detected | 10 |
| Trichlorofluoromethane | | | Not detected | 10 |
| Trichloropropane | | | Not detected | 10 |
| Vinyl chloride | | | Not detected | 10 |

| Client Sample ID | | | WP-9 | |
|---|---|---|---|---|
| York Sample ID | | | 08120078-06 | |
| Matrix | | | WATER | |
| Parameter | Method | Units | Results | MDL |
| Volatiles, 8010 List | SW846-8010 | ug/L | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | 5.0 |
| 1,1-Dichloroethane | | | Not detected | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | 5.0 |
| 1,2-Dichloroethane | | | Not detected | 5.0 |

| Client Sample ID | | | WP-9 | |
|---|---|---|---|---|
| York Sample ID | | | 08120078-06 | |
| Matrix | | | WATER | |
| **Parameter** | **Method** | **Units** | **Results** | **MDL** |
| 1,2-Dichloroethylene (Total) | | | Not detected | 5.0 |
| 1,2-Dichloropropane | | | Not detected | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | 5.0 |
| 2-Chlorotoluene | | | Not detected | 5.0 |
| 4-Chlorotoluene | | | Not detected | 5.0 |
| Bromobenzene | | | Not detected | 5.0 |
| Bromodichloromethane | | | Not detected | 5.0 |
| Bromoform | | | Not detected | 5.0 |
| Bromomethane | | | Not detected | 5.0 |
| Carbon tetrachloride | | | Not detected | 5.0 |
| Chloroacetaldehyde | | | Not detected | 5.0 |
| Chlorobenzene | | | Not detected | 5.0 |
| Chloroethane | | | Not detected | 5.0 |
| Chloroform | | | Not detected | 5.0 |
| Chloromethane | | | Not detected | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | 5.0 |
| Dibromochloromethane | | | Not detected | 5.0 |
| Dibromomethane | | | Not detected | 5.0 |
| Dichlorodifluoromethane | | | Not detected | 5.0 |
| Methylene chloride | | | Not detected | 5.0 |
| Tetrachloroethylene | | | 7300 | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | 5.0 |
| Trichloroethylene | | | Not detected | 5.0 |
| Trichlorofluoromethane | | | Not detected | 5.0 |
| Trichloropropane | | | Not detected | 5.0 |
| Vinyl chloride | | | Not detected | 5.0 |

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

## Notes for York Project No. 08120078

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

**Approved By:**
Robert Q. Bradley
Managing Director

**Date:** 12/10/2008

**YORK**
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

Page 1 of 1

08120078

| Company Name | Report To: | Invoice To: | Project ID/No. | |
|---|---|---|---|---|
| Jade Environmental, Inc. | Dave Pelletier | Sam | Clinton Terrace | Samples Collected By (Signature)<br>Dave Pelletier<br>Name (Printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix | | | | ANALYSES REQUESTED | Container Description(s) |
|---|---|---|---|---|---|---|---|---|
| | | | Water | Soil | Air | OTHER | | |
| 1 | WP-8 | 11/26/08 | | ✓ | | | VOC + 8010 List | 2oz |
| ↓ | WP-8 | ↓ | | ✓ | | | ↓ | 2oz |
| | WP-8 | | ✓ | | | | | 2-40ml |
| | WP-9 | | | ✓ | | | | 2oz |
| | WP9 | | | ✓ | | | | 2oz |
| 6 | WP-9 | | ✓ | | | | | 2-40ml |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**Chain-of-Custody Record**

| | | | | | |
|---|---|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Sample Relinquished by | Date/Time | Sample Received by | 12/1/08 7:45<br>Date/Time |
| Bottles Received in Field by | Date/Time | Sample Relinquished by | Dec 1.08<br>Date/Time | Sample Received ~~in LAB~~ by | 12/1/08 17<br>Date/Time |

*Comments/Special Instructions*

3.9°

**Turn-Around Time**
✓ Standard ____ RUSH(define)________

# Appendix I – Laboratory Analysis
# Sampling Event 4

# YORK

Analytical Laboratories, Inc.

# Technical Report

prepared for:

**Jade Environmental, Inc.**
**59 Circle Drive**
**Hopewell Junction, NY 12533**
**Attention: Mr. Dave Pelletier**

Report Date: 12/31/2008
***Re: Client Project ID: Clinton Terrace***
York Project No.: 08120827

CT License No. PH-0723 New Jersey License No. CT-005 New York License No. 10854

nelac nelap

Report Date: 12/31/2008
Client Project ID: Clinton Terrace
York Project No.: 08120827

**Jade Environmental, Inc.**
59 Circle Drive
Hopewell Junction, NY 12533
Attention: Mr. Dave Pelletier

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 12/22/08. The project was identified as your project "Clinton Terrace".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## *Analysis Results*

| **Client Sample ID** | | | **SB-19 (2')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-01** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2,3-Trichloropropane | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |

| Client Sample ID | | | SB-19 (2') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08120827-01 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 26 | B | 22 |
| Tetrachloroethylene | | | 270 | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 92.0 | --- | 1.0 |

| Client Sample ID | | | SB-19 (8') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08120827-02 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2,3-Trichloropropane | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |

| Client Sample ID | | | SB-19 (8') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-02** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 25 | B | 23 |
| Tetrachloroethylene | | | 110 | | 12 |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 86.7 | --- | 1.0 |

| Client Sample ID | | | SB-20 (2') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-03** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2,3-Trichloropropane | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |

| **Client Sample ID** | | | **SB-20 (2')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-03** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 22 | B | 22 |
| Tetrachloroethylene | | | 410 | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 92.0 | --- | 1.0 |

| **Client Sample ID** | | | **SB-20 (8')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-04** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,1-Trichloroethane | | | Not detected | | 12 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 12 |
| 1,1,2-Trichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethane | | | Not detected | | 12 |
| 1,1-Dichloroethylene | | | Not detected | | 12 |
| 1,2,3-Trichloropropane | | | Not detected | | 12 |
| 1,2-Dichlorobenzene | | | Not detected | | 12 |
| 1,2-Dichloroethane | | | Not detected | | 12 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 12 |
| 1,2-Dichloropropane | | | Not detected | | 12 |
| 1,3-Dichlorobenzene | | | Not detected | | 12 |
| 1,4-Dichlorobenzene | | | Not detected | | 12 |
| 2-Chlorotoluene | | | Not detected | | 12 |
| 4-Chlorotoluene | | | Not detected | | 12 |
| Bromobenzene | | | Not detected | | 12 |
| Bromodichloromethane | | | Not detected | | 12 |
| Bromoform | | | Not detected | | 12 |
| Bromomethane | | | Not detected | | 12 |
| Carbon tetrachloride | | | Not detected | | 12 |
| Chlorobenzene | | | Not detected | | 12 |
| Chloroethane | | | Not detected | | 12 |
| Chloroform | | | Not detected | | 12 |
| Chloromethane | | | Not detected | | 12 |
| cis-1,3-Dichloropropylene | | | Not detected | | 12 |
| Dibromochloromethane | | | Not detected | | 12 |
| Dibromomethane | | | Not detected | | 12 |
| Dichlorodifluoromethane | | | Not detected | | 12 |
| Methylene chloride | | | 25 | B | 24 |
| Tetrachloroethylene | | | 17 | | 12 |

| Client Sample ID | | | SB-20 (8') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08120827-04 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| trans-1,3-Dichloropropylene | | | Not detected | | 12 |
| Trichloroethylene | | | Not detected | | 12 |
| Trichlorofluoromethane | | | Not detected | | 12 |
| Vinyl chloride | | | Not detected | | 12 |
| Total Solids | SM 2540B | % | 84.7 | --- | 1.0 |

| Client Sample ID | | | SB-21 (2') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08120827-05 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 60 |
| 1,1,1-Trichloroethane | | | Not detected | | 60 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 60 |
| 1,1,2-Trichloroethane | | | Not detected | | 60 |
| 1,1-Dichloroethane | | | Not detected | | 60 |
| 1,1-Dichloroethylene | | | Not detected | | 60 |
| 1,2,3-Trichloropropane | | | Not detected | | 60 |
| 1,2-Dichlorobenzene | | | Not detected | | 60 |
| 1,2-Dichloroethane | | | Not detected | | 60 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 60 |
| 1,2-Dichloropropane | | | Not detected | | 60 |
| 1,3-Dichlorobenzene | | | Not detected | | 60 |
| 1,4-Dichlorobenzene | | | Not detected | | 60 |
| 2-Chlorotoluene | | | Not detected | | 60 |
| 4-Chlorotoluene | | | Not detected | | 60 |
| Bromobenzene | | | Not detected | | 60 |
| Bromodichloromethane | | | Not detected | | 60 |
| Bromoform | | | Not detected | | 60 |
| Bromomethane | | | Not detected | | 60 |
| Carbon tetrachloride | | | Not detected | | 60 |
| Chlorobenzene | | | Not detected | | 60 |
| Chloroethane | | | Not detected | | 60 |
| Chloroform | | | Not detected | | 60 |
| Chloromethane | | | Not detected | | 60 |
| cis-1,3-Dichloropropylene | | | Not detected | | 60 |
| Dibromochloromethane | | | Not detected | | 60 |
| Dibromomethane | | | Not detected | | 60 |
| Dichlorodifluoromethane | | | Not detected | | 60 |
| Methylene chloride | | | 100 | B | 60 |
| Tetrachloroethylene | | | 1300 | | 60 |
| trans-1,3-Dichloropropylene | | | Not detected | | 60 |
| Trichloroethylene | | | 150 | | 60 |
| Trichlorofluoromethane | | | Not detected | | 60 |
| Vinyl chloride | | | Not detected | | 60 |
| Total Solids | SM 2540B | % | 84.3 | --- | 1.0 |

| **Client Sample ID** | | | **SB-21 (6')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-06** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 29 |
| 1,1,1-Trichloroethane | | | Not detected | | 29 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 29 |
| 1,1,2-Trichloroethane | | | Not detected | | 29 |
| 1,1-Dichloroethane | | | Not detected | | 29 |
| 1,1-Dichloroethylene | | | Not detected | | 29 |
| 1,2,3-Trichloropropane | | | Not detected | | 29 |
| 1,2-Dichlorobenzene | | | Not detected | | 29 |
| 1,2-Dichloroethane | | | Not detected | | 29 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 29 |
| 1,2-Dichloropropane | | | Not detected | | 29 |
| 1,3-Dichlorobenzene | | | Not detected | | 29 |
| 1,4-Dichlorobenzene | | | Not detected | | 29 |
| 2-Chlorotoluene | | | Not detected | | 29 |
| 4-Chlorotoluene | | | Not detected | | 29 |
| Bromobenzene | | | Not detected | | 29 |
| Bromodichloromethane | | | Not detected | | 29 |
| Bromoform | | | Not detected | | 29 |
| Bromomethane | | | Not detected | | 29 |
| Carbon tetrachloride | | | Not detected | | 29 |
| Chlorobenzene | | | Not detected | | 29 |
| Chloroethane | | | Not detected | | 29 |
| Chloroform | | | Not detected | | 29 |
| Chloromethane | | | Not detected | | 29 |
| cis-1,3-Dichloropropylene | | | Not detected | | 29 |
| Dibromochloromethane | | | Not detected | | 29 |
| Dibromomethane | | | Not detected | | 29 |
| Dichlorodifluoromethane | | | Not detected | | 29 |
| Methylene chloride | | | 110 | B | 58 |
| Tetrachloroethylene | | | 770 | | 29 |
| trans-1,3-Dichloropropylene | | | Not detected | | 29 |
| Trichloroethylene | | | 13 | J | 29 |
| Trichlorofluoromethane | | | Not detected | | 29 |
| Vinyl chloride | | | Not detected | | 29 |
| Total Solids | SM 2540B | % | 86.3 | --- | 1.0 |

| **Client Sample ID** | | | **SB-22 (2')** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-07** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 27 |
| 1,1,1-Trichloroethane | | | Not detected | | 27 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 27 |
| 1,1,2-Trichloroethane | | | Not detected | | 27 |

| Client Sample ID | | | SB-22 (2') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08120827-07 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| 1,1-Dichloroethane | | | Not detected | | 27 |
| 1,1-Dichloroethylene | | | Not detected | | 27 |
| 1,2,3-Trichloropropane | | | Not detected | | 27 |
| 1,2-Dichlorobenzene | | | Not detected | | 27 |
| 1,2-Dichloroethane | | | Not detected | | 27 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 27 |
| 1,2-Dichloropropane | | | Not detected | | 27 |
| 1,3-Dichlorobenzene | | | Not detected | | 27 |
| 1,4-Dichlorobenzene | | | Not detected | | 27 |
| 2-Chlorotoluene | | | Not detected | | 27 |
| 4-Chlorotoluene | | | Not detected | | 27 |
| Bromobenzene | | | Not detected | | 27 |
| Bromodichloromethane | | | Not detected | | 27 |
| Bromoform | | | Not detected | | 27 |
| Bromomethane | | | Not detected | | 27 |
| Carbon tetrachloride | | | Not detected | | 27 |
| Chlorobenzene | | | Not detected | | 27 |
| Chloroethane | | | Not detected | | 27 |
| Chloroform | | | Not detected | | 27 |
| Chloromethane | | | Not detected | | 27 |
| cis-1,3-Dichloropropylene | | | Not detected | | 27 |
| Dibromochloromethane | | | Not detected | | 27 |
| Dibromomethane | | | Not detected | | 27 |
| Dichlorodifluoromethane | | | Not detected | | 27 |
| Methylene chloride | | | 86 | B | 55 |
| Tetrachloroethylene | | | 840 | | 27 |
| trans-1,3-Dichloropropylene | | | Not detected | | 27 |
| Trichloroethylene | | | Not detected | | 27 |
| Trichlorofluoromethane | | | Not detected | | 27 |
| Vinyl chloride | | | Not detected | | 27 |
| Total Solids | SM 2540B | % | 91.8 | --- | 1.0 |

| Client Sample ID | | | SB-22 (4') | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08120827-08 | | |
| Matrix | | | SOIL | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/Kg | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,1-Trichloroethane | | | Not detected | | 11 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 11 |
| 1,1,2-Trichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethane | | | Not detected | | 11 |
| 1,1-Dichloroethylene | | | Not detected | | 11 |
| 1,2,3-Trichloropropane | | | Not detected | | 11 |
| 1,2-Dichlorobenzene | | | Not detected | | 11 |
| 1,2-Dichloroethane | | | Not detected | | 11 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 11 |

| Client Sample ID | | | SB-22 (4') | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-08** | | |
| **Matrix** | | | **SOIL** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| 1,2-Dichloropropane | | | Not detected | | 11 |
| 1,3-Dichlorobenzene | | | Not detected | | 11 |
| 1,4-Dichlorobenzene | | | Not detected | | 11 |
| 2-Chlorotoluene | | | Not detected | | 11 |
| 4-Chlorotoluene | | | Not detected | | 11 |
| Bromobenzene | | | Not detected | | 11 |
| Bromodichloromethane | | | Not detected | | 11 |
| Bromoform | | | Not detected | | 11 |
| Bromomethane | | | Not detected | | 11 |
| Carbon tetrachloride | | | Not detected | | 11 |
| Chlorobenzene | | | Not detected | | 11 |
| Chloroethane | | | Not detected | | 11 |
| Chloroform | | | Not detected | | 11 |
| Chloromethane | | | Not detected | | 11 |
| cis-1,3-Dichloropropylene | | | Not detected | | 11 |
| Dibromochloromethane | | | Not detected | | 11 |
| Dibromomethane | | | Not detected | | 11 |
| Dichlorodifluoromethane | | | Not detected | | 11 |
| Methylene chloride | | | 52 | B | 23 |
| Tetrachloroethylene | | | 350 | | 11 |
| trans-1,3-Dichloropropylene | | | Not detected | | 11 |
| Trichloroethylene | | | Not detected | | 11 |
| Trichlorofluoromethane | | | Not detected | | 11 |
| Vinyl chloride | | | Not detected | | 11 |
| Total Solids | SM 2540B | % | 87.6 | --- | 1.0 |

| Client Sample ID | | | WP-8 | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-09** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 250 |
| 1,1,1-Trichloroethane | | | Not detected | | 250 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 250 |
| 1,1,2-Trichloroethane | | | Not detected | | 250 |
| 1,1-Dichloroethane | | | Not detected | | 250 |
| 1,1-Dichloroethylene | | | Not detected | | 250 |
| 1,2,3-Trichloropropane | | | Not detected | | 250 |
| 1,2-Dichlorobenzene | | | Not detected | | 250 |
| 1,2-Dichloroethane | | | Not detected | | 250 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 250 |
| 1,2-Dichloropropane | | | Not detected | | 250 |
| 1,3-Dichlorobenzene | | | Not detected | | 250 |
| 1,4-Dichlorobenzene | | | Not detected | | 250 |
| 2-Chlorotoluene | | | Not detected | | 250 |
| 4-Chlorotoluene | | | Not detected | | 250 |
| Bromobenzene | | | Not detected | | 250 |

| **Client Sample ID** | | | **WP-8** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-09** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| Bromodichloromethane | | | Not detected | | 250 |
| Bromoform | | | Not detected | | 250 |
| Bromomethane | | | Not detected | | 250 |
| Carbon tetrachloride | | | Not detected | | 250 |
| Chlorobenzene | | | Not detected | | 250 |
| Chloroethane | | | Not detected | | 250 |
| Chloroform | | | Not detected | | 250 |
| Chloromethane | | | Not detected | | 250 |
| cis-1,3-Dichloropropylene | | | Not detected | | 250 |
| Dibromochloromethane | | | Not detected | | 250 |
| Dibromomethane | | | Not detected | | 250 |
| Dichlorodifluoromethane | | | Not detected | | 250 |
| Methylene chloride | | | 380 | JB | 500 |
| Tetrachloroethylene | | | 2900 | | 250 |
| trans-1,3-Dichloropropylene | | | Not detected | | 250 |
| Trichloroethylene | | | Not detected | | 250 |
| Trichlorofluoromethane | | | Not detected | | 250 |
| Vinyl chloride | | | Not detected | | 250 |

| **Client Sample ID** | | | **WP-9** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-10** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 50 |
| 1,1,1-Trichloroethane | | | Not detected | | 50 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 50 |
| 1,1,2-Trichloroethane | | | Not detected | | 50 |
| 1,1-Dichloroethane | | | Not detected | | 50 |
| 1,1-Dichloroethylene | | | Not detected | | 50 |
| 1,2,3-Trichloropropane | | | Not detected | | 50 |
| 1,2-Dichlorobenzene | | | Not detected | | 50 |
| 1,2-Dichloroethane | | | Not detected | | 50 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 50 |
| 1,2-Dichloropropane | | | Not detected | | 50 |
| 1,3-Dichlorobenzene | | | Not detected | | 50 |
| 1,4-Dichlorobenzene | | | Not detected | | 50 |
| 2-Chlorotoluene | | | Not detected | | 50 |
| 4-Chlorotoluene | | | Not detected | | 50 |
| Bromobenzene | | | Not detected | | 50 |
| Bromodichloromethane | | | Not detected | | 50 |
| Bromoform | | | Not detected | | 50 |
| Bromomethane | | | Not detected | | 50 |
| Carbon tetrachloride | | | Not detected | | 50 |
| Chlorobenzene | | | Not detected | | 50 |
| Chloroethane | | | Not detected | | 50 |
| Chloroform | | | Not detected | | 50 |

| Client Sample ID | | | WP-9 | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08120827-10 | | |
| Matrix | | | WATER | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| Chloromethane | | | Not detected | | 50 |
| cis-1,3-Dichloropropylene | | | Not detected | | 50 |
| Dibromochloromethane | | | Not detected | | 50 |
| Dibromomethane | | | Not detected | | 50 |
| Dichlorodifluoromethane | | | Not detected | | 50 |
| Methylene chloride | | | 47 | JB | 100 |
| Tetrachloroethylene | | | 760 | | 50 |
| trans-1,3-Dichloropropylene | | | Not detected | | 50 |
| Trichloroethylene | | | Not detected | | 50 |
| Trichlorofluoromethane | | | Not detected | | 50 |
| Vinyl chloride | | | Not detected | | 50 |

| Client Sample ID | | | WP-10 | | |
|---|---|---|---|---|---|
| York Sample ID | | | 08120827-11 | | |
| Matrix | | | WATER | | |
| Parameter | Method | Units | Result | Qualifier | RL |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethane | | | Not detected | | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | | 5.0 |
| 1,2,3-Trichloropropane | | | Not detected | | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,2-Dichloroethane | | | Not detected | | 5.0 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 5.0 |
| 1,2-Dichloropropane | | | Not detected | | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | | 5.0 |
| 2-Chlorotoluene | | | Not detected | | 5.0 |
| 4-Chlorotoluene | | | Not detected | | 5.0 |
| Bromobenzene | | | Not detected | | 5.0 |
| Bromodichloromethane | | | Not detected | | 5.0 |
| Bromoform | | | Not detected | | 5.0 |
| Bromomethane | | | Not detected | | 5.0 |
| Carbon tetrachloride | | | Not detected | | 5.0 |
| Chlorobenzene | | | Not detected | | 5.0 |
| Chloroethane | | | Not detected | | 5.0 |
| Chloroform | | | Not detected | | 5.0 |
| Chloromethane | | | Not detected | | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Dibromochloromethane | | | Not detected | | 5.0 |
| Dibromomethane | | | Not detected | | 5.0 |
| Dichlorodifluoromethane | | | Not detected | | 5.0 |
| Methylene chloride | | | 12 | B | 10 |
| Tetrachloroethylene | | | 160 | | 5.0 |

| Client Sample ID | | | WP-10 | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-11** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| trans-1,3-Dichloropropylene | | | Not detected | | 5.0 |
| Trichloroethylene | | | Not detected | | 5.0 |
| Trichlorofluoromethane | | | Not detected | | 5.0 |
| Vinyl chloride | | | Not detected | | 5.0 |

| Client Sample ID | | | WP-11 | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-12** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 25 |
| 1,1,1-Trichloroethane | | | Not detected | | 25 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 25 |
| 1,1,2-Trichloroethane | | | Not detected | | 25 |
| 1,1-Dichloroethane | | | Not detected | | 25 |
| 1,1-Dichloroethylene | | | Not detected | | 25 |
| 1,2,3-Trichloropropane | | | Not detected | | 25 |
| 1,2-Dichlorobenzene | | | Not detected | | 25 |
| 1,2-Dichloroethane | | | Not detected | | 25 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 25 |
| 1,2-Dichloropropane | | | Not detected | | 25 |
| 1,3-Dichlorobenzene | | | Not detected | | 25 |
| 1,4-Dichlorobenzene | | | Not detected | | 25 |
| 2-Chlorotoluene | | | Not detected | | 25 |
| 4-Chlorotoluene | | | Not detected | | 25 |
| Bromobenzene | | | Not detected | | 25 |
| Bromodichloromethane | | | Not detected | | 25 |
| Bromoform | | | Not detected | | 25 |
| Bromomethane | | | Not detected | | 25 |
| Carbon tetrachloride | | | Not detected | | 25 |
| Chlorobenzene | | | Not detected | | 25 |
| Chloroethane | | | Not detected | | 25 |
| Chloroform | | | Not detected | | 25 |
| Chloromethane | | | Not detected | | 25 |
| cis-1,3-Dichloropropylene | | | Not detected | | 25 |
| Dibromochloromethane | | | Not detected | | 25 |
| Dibromomethane | | | Not detected | | 25 |
| Dichlorodifluoromethane | | | Not detected | | 25 |
| Methylene chloride | | | 35 | JB | 50 |
| Tetrachloroethylene | | | 510 | | 25 |
| trans-1,3-Dichloropropylene | | | Not detected | | 25 |
| Trichloroethylene | | | Not detected | | 25 |
| Trichlorofluoromethane | | | Not detected | | 25 |
| Vinyl chloride | | | Not detected | | 25 |

| **Client Sample ID** | | | **WP-12** | | |
|---|---|---|---|---|---|
| **York Sample ID** | | | **08120827-13** | | |
| **Matrix** | | | **WATER** | | |
| **Parameter** | **Method** | **Units** | **Result** | **Qualifier** | **RL** |
| **Volatiles, 8021 Halogenated** | SW846-8260 | ug/L | --- | --- | --- |
| 1,1,1,2-Tetrachloroethane | | | Not detected | | 10 |
| 1,1,1-Trichloroethane | | | Not detected | | 10 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | | 10 |
| 1,1,2-Trichloroethane | | | Not detected | | 10 |
| 1,1-Dichloroethane | | | Not detected | | 10 |
| 1,1-Dichloroethylene | | | Not detected | | 10 |
| 1,2,3-Trichloropropane | | | Not detected | | 10 |
| 1,2-Dichlorobenzene | | | Not detected | | 10 |
| 1,2-Dichloroethane | | | Not detected | | 10 |
| 1,2-Dichloroethylene (Total) | | | Not detected | | 10 |
| 1,2-Dichloropropane | | | Not detected | | 10 |
| 1,3-Dichlorobenzene | | | Not detected | | 10 |
| 1,4-Dichlorobenzene | | | Not detected | | 10 |
| 2-Chlorotoluene | | | Not detected | | 10 |
| 4-Chlorotoluene | | | Not detected | | 10 |
| Bromobenzene | | | Not detected | | 10 |
| Bromodichloromethane | | | Not detected | | 10 |
| Bromoform | | | Not detected | | 10 |
| Bromomethane | | | Not detected | | 10 |
| Carbon tetrachloride | | | Not detected | | 10 |
| Chlorobenzene | | | Not detected | | 10 |
| Chloroethane | | | Not detected | | 10 |
| Chloroform | | | Not detected | | 10 |
| Chloromethane | | | Not detected | | 10 |
| cis-1,3-Dichloropropylene | | | Not detected | | 10 |
| Dibromochloromethane | | | Not detected | | 10 |
| Dibromomethane | | | Not detected | | 10 |
| Dichlorodifluoromethane | | | Not detected | | 10 |
| Methylene chloride | | | 13 | JB | 20 |
| Tetrachloroethylene | | | 310 | | 10 |
| trans-1,3-Dichloropropylene | | | Not detected | | 10 |
| Trichloroethylene | | | Not detected | | 10 |
| Trichlorofluoromethane | | | Not detected | | 10 |
| Vinyl chloride | | | Not detected | | 10 |

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb    For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

Report Date: 12/31/2008
Client Project ID: Clinton Terrace
York Project No.: 08120827

**Notes for York Project No. 08120827**

1. The "RL" is the REPORTING LIMIT and is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This REPORTING LIMIT is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.
8. Other attachments to this report, including Chain-of-custody documentation and Case narratives are hereby made a part of this report.

**Approved By:** Robert Q Bradley

Robert Q. Bradley
Managing Director

**Date:** 12/31/2008

**YORK**
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

Page 1 of 1

08120827

| Company Name | Report To: | Invoice To: | Project ID/No. | |
|---|---|---|---|---|
| Jade Environmental, Inc. | Dave Pelletier | Same | Clinton Terrace | Samples Collected By (Signature)<br>Dave Pelletier<br>Name (Printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix Water | Soil | Air | OTHER | ANALYSES REQUESTED | Container Description(s) |
|---|---|---|---|---|---|---|---|---|
| 1 | SB-19 (2') | 12/15/08 | | ✓ | | | Chlorinated Hydrocarbs x 8010 | 2oz |
| | SB-19 (8') | | | | | | | |
| | SB-20 | | | | | | | |
| | SB-20 | | | | | | | |
| | SB-21 | | | | | | | |
| | SB-21 | | | | | | | |
| | SB-22 | | | | | | | |
| 8 | SB-22 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**Chain-of-Custody Record**

| | | | | | |
|---|---|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Sample Relinquished by | Date/Time 12/22/08 | Sample Received by | Date/Time 12-22-08 14:20 |
| Bottles Received in Field by | Date/Time | Sample Relinquished by | Date/Time | Sample Received in LAB by | Date/Time 12-22-08/1600 |

*Comments/Special Instructions*

Level B report

3.6°C

***Turn-Around Time***

___ Standard [✓ RUSH(define)] WED 31st afternoon 5pm

**YORK**
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

Page 1 of 1

08120827

| Company Name | Report To: | Invoice To: | Project ID/No. | |
|---|---|---|---|---|
| Jade Environmental, Inc | Dave Pellotta | Same | Clinton Terrace | Samples Collected By (Signature)<br>Dave Pellotta<br>Name (Printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix | | | | ANALYSES REQUESTED | Container Description(s) |
|---|---|---|---|---|---|---|---|---|
| | | | Water | Soil | Air | OTHER | | |
| 1 | WP-8 | 12/18/08 | ✓ | | | | Chlorinated Hydrocarbons x 8010 | 2-40mls |
| 2 | WP-9 | | | | | | | |
| 3 | WP-10 | | | | | | | |
| 4 | WP-11 | | | | | | | |
| 5 | WP-12 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**Chain-of-Custody Record**

| | | | | | |
|---|---|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Sample Relinquished by | Date/Time 12/22/08 | Sample Received by | Date/Time 12-22-08 14:20 |
| Bottles Received in Field by | Date/Time | Sample Relinquished by | Date/Time | Sample Received in LAB by | Date/Time 12-22-08/1600 |

Comments/Special Instructions: Level B report 3.6 °C

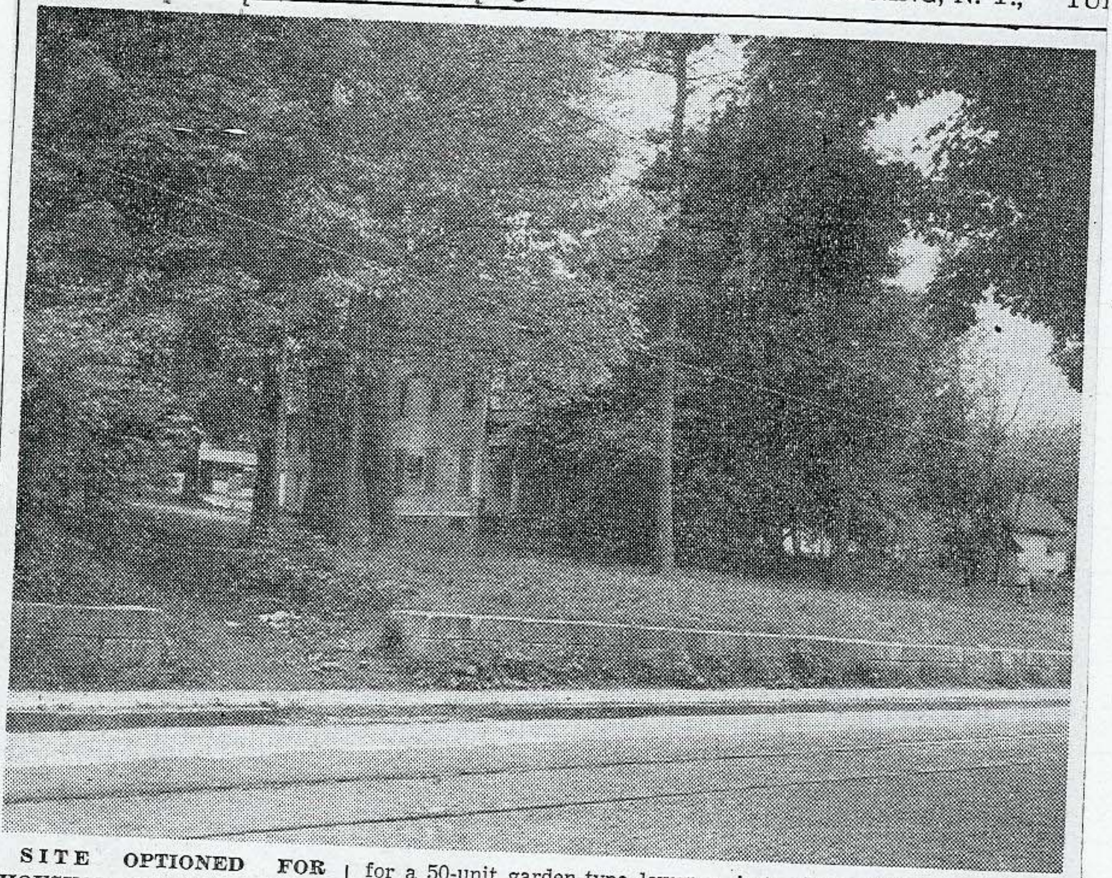
**Turn-Around Time**
___ Standard ☒ RUSH(define) End of Day 12/31/08

# Appendix J – Background Data

Site of Grand Union Property

MAY-25-1948

OSSINING, N. Y., TU



**SITE OPTIONED FOR HOUSING**—This house and two acres of land located at 98 Croton Avenue have been optioned by the Ossining Community Association's committee on Limited Dividend Housing until June 10. It is the site proposed for a 50-unit garden-type lower rental apartments for which the OCA committee is seeking partial tax exemption from the Village and Town. The purchase price is within the limit set by the New York State Department of Housing for such a project. The Village and Town Boards are to come to a conclusion on the granting of tax exemption at their next sessions. It is doubted that the housing project will be built if the exemption is not granted. Veterans will be given 60-day preference on renting. (Staff Photo).

72 CROTON AVENUE

1925 HOME OF THEODORE HENRY CALAM. *

1939 MRS INDIANA V CALAM

1980 CLINTON TERRACE TEXICO SERVICE STATION

* BORN. 1855 - DIED - 1925 -

THE CALAM FARM WAS LOCATED IN THE SECTION NOW KNOWN AS CALAM AVENUE.

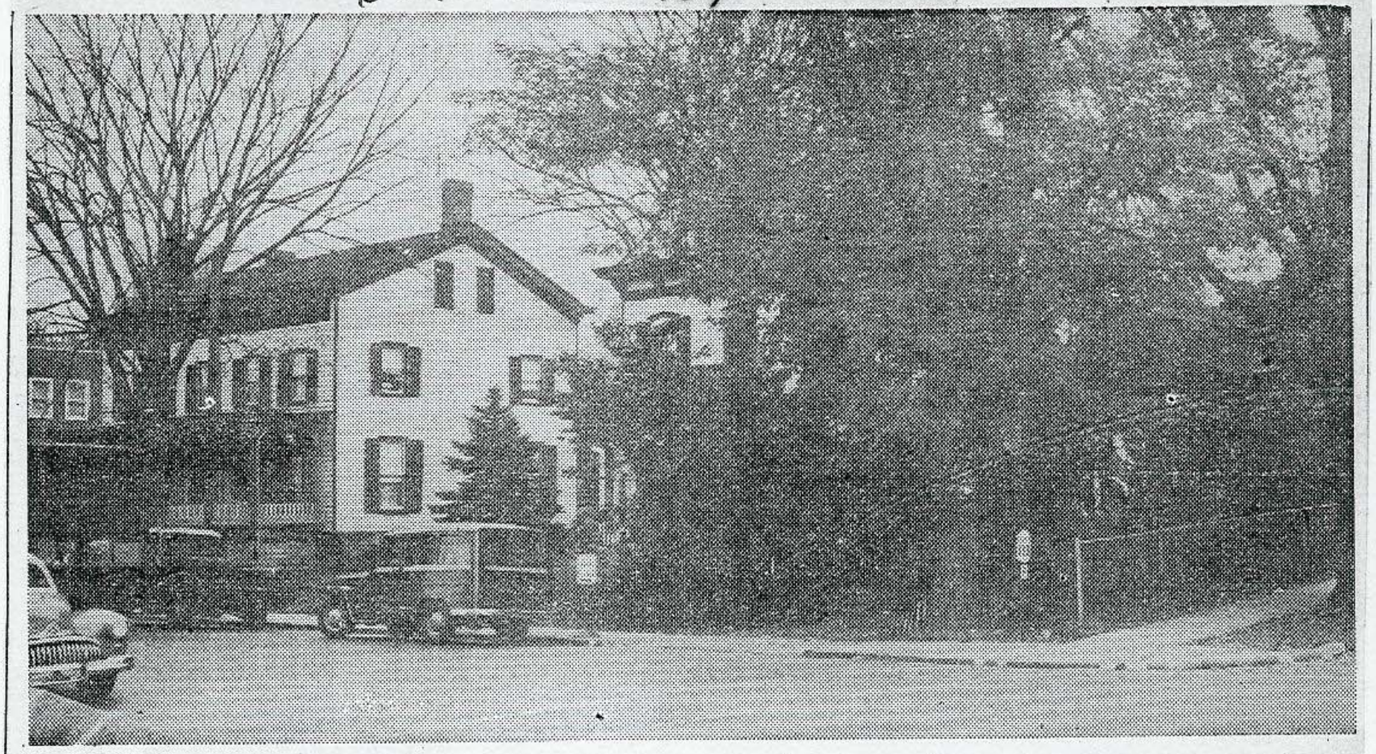
1-21-1954

CITIZEN REGISTER, OSSINING, N

**GRAND OPENING** of new Texaco Service Station on Croton Avenue at Clinton Avenue took place yesterday. The recently completed building will be under the Di Loreto Brothers and will provide all services usually obtainable at service stations—Staff Photo

74 CROTON AVE

1980 VAL ANDERS BEAUTY SHOP
SAY CHEESE
THE MEDICINE SHOP



OCT - 22 - 1954

**JENKS PROPERTY** at the corner of Croton and Clinton Avenues which Wabil Inc., firm which is building the Washington Square Shopping Center, has contracted to purchase from Mrs. Ralph Jenks for an additional shopping center unit. William J. Yates was broker. The rear of the Jenks property, which contains the two houses pictured above, adjoins the two-acre Croton Avenue site where the first unit of the Washington Square Shopping Center is nearing completion.

94 CROTON AVE

19~~39~~55 MILLER'S DRIVE-IN CLEANERS, INC.

Opened May - 5 - 1955

**Millers**

CLEANERS and DYERS Inc

# Will OPEN about MAY 2nd

**with the newest and best**

## DRY CLEANING SERVICE

**and**

## SHIRT LAUNDERING

**WATCH for OUR OPENING SPECIALS**

**Millers**

CLEANERS and DYERS Inc

**94 CROTON AVENUE** Next to Grand Union

SAME DAY SERVICE NEVER A PARKING PROBLEM

**MILLERS CLEANERS**, new addition to the Croton Avenue Shopping Center, has been opened for business in this new, modern building. The shop features same-day service, with all work, including dry cleaning, to be done on the premises.
—Staff Photo by Ray Hoover

741 CROTON AVE

1973 HAROLD GREENBERG LAUNDERMAT AND DRY CLEANERS

1961 WESTING HOUSE COIN OPERATOR

JAN 6-1962

NEW WESTINGHOUSE COIN OP. establishment, a coin operated dry cleaner and laundromat located in the Croton Avenue shopping center, held its opening this week. Entertainer Tony Drake, currently appearing at Radio City Music Hall, presented songs to the accompaniment of a guitar and drums. Facing the camera from left to right are: James Venia, Westinghouse representative; William O. Mehlich, president of the landromat and dr cleaning corporation; Mayo Jesse A. Collyer Jr.; Fran Sferrazza, vice president of th corporation, and Mr. Drake.—Staff Photo by John Marrone

A. GAY CHEESE
B MEDICINE SHOP.

1-8-1962

# GRAND OPENING SPECIAL

## COUPONS SAVING YOU

**$1.00** ON ANY 8 LB. LOAD OF DRY CLEANING

Regularly $2.00 per 8 lb. load

**AND**

**50¢** TOWARDS WASHING OR DRYING

are available at the NEW WESTINGHOUSE COIN-OP pick yours up today, coupons valid until January 18, 1962.

OPEN 9 A. M. - 10 P. M.
Monday thru Saturday

## WESTINGHOUSE
## COIN - OP

DRY CLEANING - LAUNDROMAT

CROTON AVE. SHOPPING CENTER

Next to Gristedes
74 Croton Ave., Ossining

# Appendix K – Boring Logs

0

Date 11/5/08
Start Time 9AM
Page 1 of

**JADE ENVIRONMENTAL, INC.**
59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533
Office (845) 897-2188/ Fax (845) 8972189

Boring Id [redacted] WP-1
GW Depth - ±12'
Drilling Method DP

## Soil Boring Log

Project Name: Clinton Terrace
Address: 78 Clinton

Field Engineer: **Dave Pelletier**
Driller: **~~Tom Volckman~~** Bob Falcone

| Depth | Sample Int. | Recovery | Soil Description | Notes |
|---|---|---|---|---|
| **0** | | | | |
| 1 | | 80% | | ① No odors<br>② 1st 8' slightly grayed - looks like ash from fire<br>③ Silty to sandy w/depth<br>④ Mottled in silt |
| 2 | | | Brick, silty dk fill, burnt wood | |
| 3 | | | ↓ | |
| **4** | | | | |
| 5 | | 90% | | |
| 6 | ▨ | | Fine sand / silt mottled | |
| 7 | | | | |
| **8** | | | Gets sandier w/depth | |
| 9 | | 100% | | |
| 10 | | | ↓ | |
| 11 | | | | |
| **12** | | ∇ | | |
| 13 | ▨ | 100% | | |
| 14 | | | F-M sand w/silt | |
| 15 | | | | |
| **16** | | | ↓ | |
| 17 | | 100% | | |
| 18 | | | | |
| 19 | | | | |
| **20** | | | | |
| 21 | | | Boring Term. 20' | |
| 22 | | | W.P. installed | |
| 23 | | | | |
| **24** | | | | |
| 25 | | | | |
| 26 | | | | |
| 27 | | | | |
| **28** | | | | |
| 29 | | | | |
| 30 | | | | |
| 31 | | | | |
| **32** | | | | |
| 33 | | | | |
| 34 | | | | |
| 35 | | | | |
| **36** | | | | |

|  |  |  |
|---|---|---|
| Date 11/5/08<br>Start Time<br>Page 2 of 4 | **Jade Environmental, Inc.**<br>59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533<br>(845) 897-2188 | Boring Id WP-2<br>GW Depth - ~~Not Encount~~ 12'<br>Drilling Method - DPT |

# Soil Boring Log

4' Macrocore

|  |  |  |  |
|---|---|---|---|
| Project Name: | ~~Gyrodyne~~ Clinton Terrace | Field Engineer: | Dave Pelletier |
| Address: | 78 ~~Clinton~~ Crops<br>Ossining, NY | Driller: | ~~Tom Volckmann~~<br>Bob Falcone |

| Depth | Sample Int. | Recovery | Soil Description | Notes |
|---|---|---|---|---|
| **0** |  |  | Blacktop |  |
| 1 |  |  | Brown silty fine sand | ① No chemical or petroleum odors, no obvious contamina |
| 2 |  | 80% | w/silt |  |
| 3 | ▨ |  |  |  |
| **4** |  |  | ↓ |  |
| 5 |  |  |  |  |
| 6 |  | 90% | Dk gray silt w/gravel/stones | ② Fill to 14' mostly fine sand and silt |
| 7 |  |  |  |  |
| **8** |  |  | ↓ |  |
| 9 |  |  |  |  |
| 10 |  | 100% |  | ③ Saturated under 10' |
| 11 |  |  |  |  |
| **12** |  | ▽ |  | ④ 20' well point installed 10' screen, 10' riser. |
| 13 |  |  |  |  |
| 14 |  | 100% | Dark Brown Organic |  |
| 15 |  |  | Meadow Mat |  |
| **16** |  |  |  |  |
| 17 |  |  | Dk fine sand |  |
| 18 |  | 100% | w/silt |  |
| 19 |  |  |  |  |
| **20** |  |  | ↓ |  |
| 21 |  |  | Boring Terminated 20' |  |
| 22 |  |  | Well Point Installed |  |
| 23 |  |  |  |  |
| **24** |  |  |  |  |
| 25 |  |  |  |  |
| 26 |  |  |  |  |
| 27 |  |  |  |  |
| **28** |  |  |  |  |
| 29 |  |  |  |  |
| 30 |  |  |  |  |
| 31 |  |  |  |  |
| **32** |  |  |  |  |
| 33 |  |  |  |  |
| 34 |  |  |  |  |
| 35 |  |  |  |  |
| **36** |  |  |  |  |

| | | |
|---|---|---|
| Date 11/5/08 | **Jade Environmental, Inc.**<br>59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533<br>(845) 897-2188 | Boring Id SB-1 |
| Start Time | | GW Depth - ~~Not Encountered~~ NA |
| Page 3 of 4 | | Drilling Method - DPT |

## Soil Boring Log

4' Macrocore

| | | | |
|---|---|---|---|
| Project Name: | Gyrodyne | Field Engineer: | Dave Pelletier |
| Address: | Clinton Terrace<br>78 Croton Ave<br>Ossining, NY | Driller: | ~~Tom Volckmann~~<br>Bob Fallone |

| Depth | Sample Int. | Recovery rate | Soil Description | Notes |
|---|---|---|---|---|
| **0** | | | Blacktop | ① Proposed location of UP. 3 abandoned after refusal on rock at 11' bgs.. |
| 1 | | | Silty fine sand a-lot of rock | |
| 2 | | 70% | ↓ | |
| 3 | ▨ | | | |
| **4** | | | Gets darker w/depth | |
| 5 | | | | |
| 6 | | 75% | | ② No chemical or Petroleum odor |
| 7 | | | | |
| **8** | | | Siltier w/depth | |
| 9 | | | | |
| 10 | | 60% | | ③ Two samples collected for 8010 |
| 11 | ▨ | | Looks organic above rock | |
| **12** | | | Refusal @ 11' on rock | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| **16** | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| **20** | | | | |
| 21 | | | | |
| 22 | | | | |
| 23 | | | | |
| **24** | | | | |
| 25 | | | | |
| 26 | | | | |
| 27 | | | | |
| **28** | | | | |
| 29 | | | | |
| 30 | | | | |
| 31 | | | | |
| **32** | | | | |
| 33 | | | | |
| 34 | | | | |
| 35 | | | | |
| **36** | | | | |

Date 11/5/08
Start Time
Page 4 of 4

**Jade Environmental, Inc.**
59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533
(845) 897-2188

Boring Id WP-3
GW Depth - ~~Not Encountered~~ 12'
Drilling Method - DPT

# Soil Boring Log

4' Macrocore

Project Name: ~~Gyrodyne~~
Address: Clinton Terrace
78 Croton Ave
Ossining, NY

Field Engineer: Dave Pelletier
Driller: ~~Tom Volckmann~~
Bob Falcone

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | Blacktop | |
| 1 | | | ① No petroleum or |
| 2 | 80% | Brown silty fine sand | chemical / odors |
| 3 | | w/rock | |
| **4** | | | ② No meadow mat |
| 5 | 80% | ↓ | |
| 6 | | | ③ 20' well point |
| 7 | | | 10' screen. |
| **8** | | | |
| 9 | 50% (Rock) | | |
| 10 | | Tan silty fine sand | |
| 11 | | mottled | |
| **12** | | | |
| 13 | 100% | ↓ | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | 100% | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | Boring Terminated @ 20' | |
| 22 | | Well Point Installed | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

| | | |
|---|---|---|
| Date 11/6 | **Jade Environmental, Inc.**<br>59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533<br>(845) 897-2188 | Boring Id WP-4 |
| Start Time | | GW Depth - ~~Not Encount~~ ± 15' |
| Page 1 of 9 | | Drilling Method - DPT |

# Soil Boring Log

Project Name: ~~Gyrodyne~~ Clinton Terrace
Address: 78 Clinton Ave
Ossining

Field Engineer: Dave Pelletier
Driller: ~~Tom Volckmann~~
Bob Falcone

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| 0 | | Blacktop | ① No odors, slightly |
| 1 | | | blackened @ grade |
| 2 | | 90% Dark to black silt w/sand | to 5', looks like |
| 3 | | Brick & Concrete (Minor) | wood ash |
| 4 | | Burnt wood | |
| 5 | | TO 5' | ② Looks like no |
| 6 | | Brown silty fine sand | vapor until 15' |
| 7 | | | |
| 8 | | FILL | |
| 9 | 100% recovery | ↓ | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | Brown medium to course sand | |
| 15 | | ▽ w/f. gravel / silt | |
| 16 | | ↓ | |
| 17 | | | |
| 18 | | Original | |
| 19 | | | |
| 20 | | | |
| 21 | | Boring Term. - W.P installed | |
| 22 | | 10' screen, 10' riser | |
| 23 | | | |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| 32 | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| 36 | | | |

Date 11/6/08

Start Time

Page 2 of 9

**Jade Environmental, Inc.**

59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533

(845) 897-2188

Boring Id WP-5

GW Depth - ~~Not Encount~~ ±12'

Drilling Method - DPT

## Soil Boring Log

4' Macrocore

Project Name: [illegible]

Address:
Clinton Terrace
18 Croton Ave, Ossining

Field Engineer: Dave Pelletier

Driller: ~~Tom Volckmann~~ Bob Falcone

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| 0 | | Blacktop | |
| 1 | | Brown silty fine sand | * No petroleum or |
| 2 | | becoming lighter in color | Chemical / odors |
| 3 | ▨ | and siltier w/depth | or staining. |
| 4 | ▨ | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | ▨ | | |
| 12 | ▨ | | |
| 13 | | 110% | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | 100% Becoming sandy w/gravel | |
| 18 | | close to bedrock | |
| 19 | | original | |
| 20 | | | |
| 21 | | Boring Term @ 20' | |
| 22 | | | |
| 23 | | | |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| 32 | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| 36 | | | |

|  |  |  |
|---|---|---|
| Date 11/6/08 | **Jade Environmental, Inc.**<br>8 Linden Rd, Carmel, NY 10512<br>(845) 225-2981 | Boring Id SB-2 |
| Start Time |  | GW Depth Not Enc. |
| Page 3 of 9 |  | Drilling Method DP<br>4' Macrocore |

## Soil Boring Log

|  |  |  |  |
|---|---|---|---|
| Project Name: | Clinton Terrace | Field Engineer: | Dave Pelletier, P.E. |
| Address: | 28 Croton Ave<br>Ossining, NY | Driller: | Bob Falcone |
|  |  | Driller Asst.: | Eric |

| Depth | Sample Int. | Recovery | Soil Description | PID | Notes |
|---|---|---|---|---|---|
| **0** |  |  | Blacktop |  |  |
| 1 |  |  | Silty fine sand w/gravel | 0.0 | * looks clean and original |
| 2 |  |  |  |  |  |
| 3 | ▨ |  | gets sandier w/depth |  |  |
| **4** |  |  | ↓ |  |  |
| 5 |  |  |  |  |  |
| 6 |  |  | F-M sands / F. Gravel |  |  |
| 7 | ▨ |  | ↓ |  |  |
| **8** |  |  | Refusal Rock | ↓ |  |
| 9 |  |  |  |  |  |
| 10 |  |  |  |  |  |
| 11 |  |  |  |  |  |
| **12** |  |  |  |  |  |
| 13 |  |  |  |  |  |
| 14 |  |  |  |  |  |
| 15 |  |  |  |  |  |
| **16** |  |  |  |  |  |
| 17 |  |  |  |  |  |
| 18 |  |  |  |  |  |
| 19 |  |  |  |  |  |
| **20** |  |  |  |  |  |
| 21 |  |  |  |  |  |
| 22 |  |  |  |  |  |
| 23 |  |  |  |  |  |
| **24** |  |  |  |  |  |
| 25 |  |  |  |  |  |
| 26 |  |  |  |  |  |
| 27 |  |  |  |  |  |
| **28** |  |  |  |  |  |
| 29 |  |  |  |  |  |
| 30 |  |  |  |  |  |
| 31 |  |  |  |  |  |
| **32** |  |  |  |  |  |
| 33 |  |  |  |  |  |
| 34 |  |  |  |  |  |
| 35 |  |  |  |  |  |
| **36** |  |  |  |  |  |

Date 11/6/08
Start Time
Page 4 of 9

**Jade Environmental, Inc.**
8 Linden Rd, Carmel, NY 10512
(845) 225-2981

Boring Id SB-3
GW Depth NOT ENC.
Drilling Method DP
4' MACROCORE

## Soil Boring Log

Project Name: CLINTON TERRACE
Address: 78 CROTON AVE

Field Engineer: D. PELLETIER
Driller: BOB KOLLONG
Driller Asst.: ERIC

| Depth | Sample Int. | Recovery | Soil Description | PID | Notes |
|---|---|---|---|---|---|
| **0** | | | Blacktop | | *Looks clean, NO PID READINGS |
| 1 | | | SILTY FINE SAND<br>OVER<br>SANDIER/FINE GRAVEL<br>AND ROCK<br>↓ | 0.0<br>↓ | |
| 2 | | 80% | | | |
| 3 | ▨ | | | | |
| **4** | | | | | |
| 5 | | | | | |
| 6 | | 70% | | | |
| 7 | ▨ | | | | |
| **8** | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| **12** | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| **16** | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| **20** | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| **24** | | | | | |
| 25 | | | | | |
| 26 | | | | | |
| 27 | | | | | |
| **28** | | | | | |
| 29 | | | | | |
| 30 | | | | | |
| 31 | | | | | |
| **32** | | | | | |
| 33 | | | | | |
| 34 | | | | | |
| 35 | | | | | |
| **36** | | | | | |

Date 11/6/08
Start Time
Page 5 of 9

**Jade Environmental, Inc.**
8 Linden Rd, Carmel, NY 10512
(845) 225-2981

Boring Id SB-4
GW Depth ±12'
Drilling Method DP
4' macrocore

# Soil Boring Log

Project Name: Clinton Terrace
Address: 78 Croton Ave
Ossining, NY

Field Engineer: Dave Pelletier
Driller: Bob Falcone
Driller Asst.: Eric

| Depth | Sample Int. | Recov | Soil Description | PID | Notes |
|---|---|---|---|---|---|
| **0** | | | Blacktop | | |
| 1 | | | Fine soft silty sand | ↑ | * No odors or discolor. |
| 2 | | | | | * Siltier, some fill |
| 3 | ▨ | 90% | ↓ | | |
| **4** | ▨ | | | | |
| 5 | | | | | |
| 6 | | | F-m sands/gravel | 0.0 | |
| 7 | | 90% | ↓ | | |
| **8** | | | | | |
| 9 | | | Brown w/ depth | | |
| 10 | | 100% | | | |
| 11 | ▨ | | ↓ | | |
| **12** | ▨ | | | ↓ | |
| 13 | | | Boring Term @ 12' | | |
| 14 | | | | | |
| 15 | | | | | |
| **16** | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| **20** | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| **24** | | | | | |
| 25 | | | | | |
| 26 | | | | | |
| 27 | | | | | |
| **28** | | | | | |
| 29 | | | | | |
| 30 | | | | | |
| 31 | | | | | |
| **32** | | | | | |
| 33 | | | | | |
| 34 | | | | | |
| 35 | | | | | |
| **36** | | | | | |

| | | |
|---|---|---|
| Date 11/6 | **Jade Environmental, Inc.**<br>8 Linden Rd, Carmel, NY 10512<br>(845) 225-2981 | Boring Id SB-5 |
| Start Time | | GW Depth ±11' |
| Page 6 of 9 | | Drilling Method DP |

## Soil Boring Log

4' Macrocore

Project Name: Clinton Terrace
Address: 78 Croton Ave

Field Engineer: Dave Pelletier
Driller: Bob Falcone
Driller Asst.: Eric

| Depth | Sample Int. | Recovery | Soil Description | Notes |
|---|---|---|---|---|
| **0** | | | Blacktop | |
| 1 | | | | * No odors or stains |
| 2 | | | Sandy, loamy gravel | |
| 3 | ▨ | 90% | ↓ | * Looks all original |
| **4** | | | Rockier w/depth | * Water @ about 11' |
| 5 | | | ↓ | |
| 6 | | | | * Groundwater may be traveling north here |
| 7 | | 100% | | |
| **8** | | | | |
| 9 | | | | |
| 10 | | ▽ | | |
| 11 | ▨ | 100% | | * Very close to bedrock quartz, schist, mica marble. |
| **12** | | | ↓ | |
| 13 | | | Boring Term @ 12' | |
| 14 | | | | |
| 15 | | | | |
| **16** | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| **20** | | | | |
| 21 | | | | |
| 22 | | | | |
| 23 | | | | |
| **24** | | | | |
| 25 | | | | |
| 26 | | | | |
| 27 | | | | |
| **28** | | | | |
| 29 | | | | |
| 30 | | | | |
| 31 | | | | |
| **32** | | | | |
| 33 | | | | |
| 34 | | | | |
| 35 | | | | |
| **36** | | | | |

| | | |
|---|---|---|
| Date 11/6 | **Jade Environmental, Inc.**<br>8 Linden Rd, Carmel, NY 10512<br>(845) 225-2981 | Boring Id SB-6 |
| Start Time | | GW Depth ±12' |
| Page 7 of 9 | | Drilling Method DPT<br>4' Macrocore |

## Soil Boring Log

Project Name: Clinton Terrace
Address: 78 Croton Ave
Ossining

Field Engineer: D. Pelletier
Driller: B. Falcone
Driller Asst.: Eric

| Depth | Sample Int. | Recovery | Soil Description | PID | Notes |
|---|---|---|---|---|---|
| **0** | | | Blacktop | | * No odors or discoloration |
| 1 | | | Silty fine sand / w gravel | 0.0 | * Soil saturated at tip |
| 2 | | 80% | | | |
| 3 | ▨ | | 90% sandier | | |
| **4** | | | | | |
| 5 | | | ↓ | | |
| 6 | | 90% | | | |
| 7 | | | Fine sands w/silt | | |
| **8** | | | and gravel | | |
| 9 | | | | | |
| 10 | | 100% | | | |
| 11 | | | ↓ | | |
| **12** | ▨ | ▽ | | | |
| 13 | | | Boring term @ 12' | | |
| 14 | | | | | |
| 15 | | | | | |
| **16** | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| **20** | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| **24** | | | | | |
| 25 | | | | | |
| 26 | | | | | |
| 27 | | | | | |
| **28** | | | | | |
| 29 | | | | | |
| 30 | | | | | |
| 31 | | | | | |
| **32** | | | | | |
| 33 | | | | | |
| 34 | | | | | |
| 35 | | | | | |
| **36** | | | | | |

|  |  |  |  |
|---|---|---|---|
| Date 11/6 | **Jade Environmental, Inc.**<br>8 Linden Rd, Carmel, NY 10512<br>(845) 225-2981 | Boring Id | SB-7 |
| Start Time |  | GW Depth | Not Enc. |
| Pa of 8 of 9 |  | Drilling Method | DP |

## Soil Boring Log

4' macrocore

Project Name: Clinton Terrace
Address: 78 Croton Ave

Field Engineer: Dave Pelletier
Driller: Bob Falcone
Driller Asst.: ENC

| Depth | Sample Int. | Recov. | Soil Description | PID | Notes |
|---|---|---|---|---|---|
| **0** |  |  | Black top |  | * No odors or discolor. |
| 1 |  |  | BEACH SAND<br>Possible uplifting bedrock | ↑ | * close to rock |
| 2 |  | 100% |  |  |  |
| 3 |  |  |  |  |  |
| **4** |  |  | ↓ |  |  |
| 5 |  |  |  | 0.0 |  |
| 6 |  |  |  |  |  |
| 7 |  | 90% |  |  |  |
| **8** |  |  |  | ↓ |  |
| 9 |  |  | Refusal on rock |  |  |
| 10 |  |  |  |  |  |
| 11 |  |  |  |  |  |
| **12** |  |  |  |  |  |
| 13 |  |  |  |  |  |
| 14 |  |  |  |  |  |
| 15 |  |  |  |  |  |
| **16** |  |  |  |  |  |
| 17 |  |  |  |  |  |
| 18 |  |  |  |  |  |
| 19 |  |  |  |  |  |
| **20** |  |  |  |  |  |
| 21 |  |  |  |  |  |
| 22 |  |  |  |  |  |
| 23 |  |  |  |  |  |
| **24** |  |  |  |  |  |
| 25 |  |  |  |  |  |
| 26 |  |  |  |  |  |
| 27 |  |  |  |  |  |
| **28** |  |  |  |  |  |
| 29 |  |  |  |  |  |
| 30 |  |  |  |  |  |
| 31 |  |  |  |  |  |
| **32** |  |  |  |  |  |
| 33 |  |  |  |  |  |
| 34 |  |  |  |  |  |
| 35 |  |  |  |  |  |
| **36** |  |  |  |  |  |

Date 11/6
Start Time
Pa of 9 of 9

**Jade Environmental, Inc.**
8 Linden Rd, Carmel, NY 10512
(845) 225-2981

Boring Id SB-8
GW Depth Not Enc.
Drilling Method DP 4' Macro Core

## Soil Boring Log

Project Name: Clinton Terrace
Address: 78 Croton Ave

Field Engineer: Dave Pelletier
Driller: Bob Falcone
Driller Asst.: Eric

| Depth | Sample Int. | Recovery | Soil Description | PID | Notes |
|---|---|---|---|---|---|
| 0 | | | Blacktop | | * No odors or staining |
| 1 | | | | 0.0 | |
| 2 | | 50% | Silty fine sand | | * No groundwater |
| 3 | ▨ | | dk. w/depth | | * Possible H.M. loading/ |
| 4 | | | | | unloading site when |
| 5 | | | | | dry cleaner in operatn |
| 6 | | 100% | | | |
| 7 | | | | | |
| 8 | ▨ | | | | |
| 9 | | | F.M sands / F gravel | | |
| 10 | | 100% | w/ silt | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | Boring Term @ 12' | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
| 25 | | | | | |
| 26 | | | | | |
| 27 | | | | | |
| 28 | | | | | |
| 29 | | | | | |
| 30 | | | | | |
| 31 | | | | | |
| 32 | | | | | |
| 33 | | | | | |
| 34 | | | | | |
| 35 | | | | | |
| 36 | | | | | |

|  |  |  |
|---|---|---|
| Date 11/19/08 | **JADE ENVIRONMENTAL, INC.** | Boring Id SB-9 |
| Start Time | 59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533 | GW Depth - Not enc. |
| Page 1 of 5 | Office (845) 897-2188/ Fax (845) 8972189 | Drilling Method HAND DPT |

## Soil Boring Log

|  |  |  |  |
|---|---|---|---|
| Project Name: | **Clinton Terrace** | Field Engineer: | **Dave Pelletier** |
| Address: | **74-82 Croton Avenue**<br>**Ossining, New York** | Driller: | **Bob Falcone** |

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** |  | Blacktop |  |
| 1 |  |  | * Hand probe - Large Bore |
| 2 |  | Soft fine sandy |  |
| 3 |  | loam | * Adjacent Catch |
| **4** |  |  | basin behind |
| 5 |  | Gray to brown |  |
| 6 |  |  | building. |
| 7 |  |  |  |
| **8** |  |  | * No odors or |
| 9 |  | ↓ |  |
| 10 |  |  | discoloration |
| 11 |  |  |  |
| **12** |  | Refusal |  |
| 13 |  | Possibly Bedrock |  |
| 14 |  |  |  |
| 15 |  |  |  |
| **16** |  |  |  |
| 17 |  |  |  |
| 18 |  |  |  |
| 19 |  |  |  |
| **20** |  |  |  |
| 21 |  |  |  |
| 22 |  |  |  |
| 23 |  |  |  |
| **24** |  |  |  |
| 25 |  |  |  |
| 26 |  |  |  |
| 27 |  |  |  |
| **28** |  |  |  |
| 29 |  |  |  |
| 30 |  |  |  |
| 31 |  |  |  |
| **32** |  |  |  |
| 33 |  |  |  |
| 34 |  |  |  |
| 35 |  |  |  |
| **36** |  |  |  |

Date 11/19/08
Start Time
Page 2 of 5

**JADE ENVIRONMENTAL, INC.**
59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533
Office (845) 897-2188/ Fax (845) 8972189

Boring Id SB-10
GW Depth - Not Enc.
Drilling Method Hand DPT

## Soil Boring Log

Project Name: **Clinton Terrace**
Address: **74-82 Croton Avenue**
**Ossining, New York**

Field Engineer: **Dave Pelletier**
Driller: **Bob Falcone**

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | Blacktop | |
| 1 | | Sandy Loam<br>↓ | * Hand probe - Case Bore |
| 2 | | | |
| 3 | | | * Looks clean |
| **4** | | Refusal on Rock | |
| 5 | | | * No odors. |
| 6 | | | |
| 7 | | | |
| **8** | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| **12** | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

|  |  |  |
|---|---|---|
| Date 11/19/08<br>Start Time<br>Page 3 of 5 | **JADE ENVIRONMENTAL, INC.**<br>59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533<br>Office (845) 897-2188/ Fax (845) 8972189 | Boring Id SB-11<br>GW Depth -<br>Drilling Method Hand DPT |

# Soil Boring Log

|  |  |  |  |
|---|---|---|---|
| Project Name: | **Clinton Terrace** | Field Engineer: | **Dave Pelletier** |
| Address: | **74-82 Croton Avenue**<br>**Ossining, New York** | Driller: | **Bob Falcone** |

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** |  | Black |  |
| 1 |  |  | * No odors or discoloration |
| 2 |  | Brown fine sandy loam |  |
| 3 |  |  |  |
| **4** |  | Refusal on rock | * Sampled bottom |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |
| **8** |  |  |  |
| 9 |  |  |  |
| 10 |  |  |  |
| 11 |  |  |  |
| **12** |  |  |  |
| 13 |  |  |  |
| 14 |  |  |  |
| 15 |  |  |  |
| **16** |  |  |  |
| 17 |  |  |  |
| 18 |  |  |  |
| 19 |  |  |  |
| **20** |  |  |  |
| 21 |  |  |  |
| 22 |  |  |  |
| 23 |  |  |  |
| **24** |  |  |  |
| 25 |  |  |  |
| 26 |  |  |  |
| 27 |  |  |  |
| **28** |  |  |  |
| 29 |  |  |  |
| 30 |  |  |  |
| 31 |  |  |  |
| **32** |  |  |  |
| 33 |  |  |  |
| 34 |  |  |  |
| 35 |  |  |  |
| **36** |  |  |  |

Date 11/19/02

Start Time

Page 4 of 5

**JADE ENVIRONMENTAL, INC.**

59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533

Office (845) 897-2188/ Fax (845) 8972189

Boring Id SB-12

GW Depth -

Drilling Method Hand DPT

## Soil Boring Log

Project Name: **Clinton Terrace**

Address: **74-82 Croton Avenue**
**Ossining, New York**

Field Engineer: **Dave Pelletier**

Driller: **Bob Falcone**

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | Blacktop | * No odor or |
| 1 | | | |
| 2 | | Brown fine sandy loam | discoloration |
| 3 | | | |
| **4** | | Refusal on rock | * Sampled surface |
| 5 | | | of rock. |
| 6 | | | |
| 7 | | | |
| **8** | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| **12** | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

| | | |
|---|---|---|
| Date 11/19/08 | **JADE ENVIRONMENTAL, INC.** | Boring Id WP-6 |
| Start Time | 59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533 | GW Depth - ± 5' |
| Page 5 of 5 | Office (845) 897-2188/ Fax (845) 8972189 | Drilling Method Hand DPT |

## Soil Boring Log

| | | | |
|---|---|---|---|
| Project Name: | **Clinton Terrace** | Field Engineer: | **Dave Pelletier** |
| Address: | **74-82 Croton Avenue**<br>**Ossining, New York** | Driller: | **Bob Falcone** |

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| 0 | | Concrete | |
| 1 | | | * No odors or |
| 2 | | Fine sandy loam | discoloration |
| 3 | | Lightly Cons. | |
| 4 | | ▽ | * Boring collapsed. |
| 5 | | | 1" well point installa |
| 6 | | | to about 9' bgs. |
| 7 | | | |
| 8 | | | |
| 9 | | | * Manhole installed. |
| 10 | | | |
| 11 | | Boring Term @ ±10' | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| 32 | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| 36 | | | |

| | | |
|---|---|---|
| Date 11/20/08 | **JADE ENVIRONMENTAL, INC.** | Boring Id SB-13 |
| Start Time | 59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533 | GW Depth - Not enc. |
| Page 1 of 7 | Office (845) 897-2188/ Fax (845) 8972189 | Drilling Method Hand DPT |

# Soil Boring Log

| | | | |
|---|---|---|---|
| Project Name: | **Clinton Terrace** | Field Engineer: | **Dave Pelletier** |
| Address: | **74-82 Croton Avenue**<br>**Ossining, New York** | Driller: | **Bob Falcone** |

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | Concrete | |
| 1 | | | *Hand probe to 10' |
| 2 | | Fine Sandy loam | |
| 3 | | w/silt | *Strong odor shallow |
| **4** | | | |
| 5 | ▨ | ↓ | *Dissipates w/depth |
| 6 | | | *No discoloration |
| 7 | | | just odor. |
| **8** | | | |
| 9 | | | |
| 10 | ▨ | ↓ | *Room filled w/odor |
| 11 | | Boring Term @ 10' | from VOC leaving |
| **12** | | | bore hole |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

Date 11/20/08
Start Time
Page 2 of 7

**JADE ENVIRONMENTAL, INC.**
59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533
Office (845) 897-2188/ Fax (845) 8972189

Boring Id SB-14
GW Depth - Not Enc.
Drilling Method Hand DPT

## Soil Boring Log

Project Name: **Clinton Terrace**
Address: **74-82 Croton Avenue**
**Ossining, New York**

Field Engineer: **Dave Pelletier**
Driller: **Bob Falcone**

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| 0 | | Concrete | |
| 1 | | Ballast 2-3 inch } Strong odor | * Large bore / hammer |
| 2 | | Brown Sandy Loam } | * Strong odor of Perc. |
| 3 | | w/ silt | |
| 4 | | | * Odor dissipated w/ depth |
| 5 | ▨ | | |
| 6 | | | |
| 7 | | ↓ | |
| 8 | | | |
| 9 | | | |
| 10 | ▨ | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| 32 | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| 36 | | | |

| | | |
|---|---|---|
| Date 11/20/08 | **JADE ENVIRONMENTAL, INC.** | Boring Id SB-15 |
| Start Time | 59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533 | GW Depth - Not Enc |
| Page 3 of 7 | Office (845) 897-2188/ Fax (845) 8972189 | Drilling Method Hand DPT |

# Soil Boring Log

| | | | |
|---|---|---|---|
| Project Name: | **Clinton Terrace** | Field Engineer: | **Dave Pelletier** |
| Address: | **74-82 Croton Avenue**<br>**Ossining, New York** | Driller: | **Bob Falcone** |

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | CONCRETE | |
| 1 | | | * Hand probe to 10' |
| 2 | | FINE SANDY LOAM | |
| 3 | | w/ SILT | * Slight odor shallow |
| **4** | | | dissipates quickly |
| 5 | ▨ | | |
| 6 | | ↓ | |
| 7 | | | * No staining |
| **8** | | | |
| 9 | | | |
| 10 | ▨ | | |
| 11 | | BORING TERMINATED | |
| **12** | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

Date 4/20/08
Start Time
Page 4 of 7

**JADE ENVIRONMENTAL, INC.**
59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533
Office (845) 897-2188/ Fax (845) 8972189

Boring Id SB-16
GW Depth - NOT ENC.
Drilling Method HAND DPT

# Soil Boring Log

Project Name: **Clinton Terrace**
Address: **74-82 Croton Avenue**
**Ossining, New York**

Field Engineer: **Dave Pelletier**
Driller: **Bob Falcone**

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | CONCRETE | |
| 1 | | | *HAND probe TO 10' |
| 2 | | FINE SANDY LOAM | *NO ODORS OR |
| 3 | | ↓ | STAINING |
| **4** | | | |
| 5 | ▨ | | *Sampled 5'/10'. |
| 6 | ▨ | | |
| 7 | | | |
| **8** | | | |
| 9 | | | |
| 10 | ▨ | | |
| 11 | | BORING TERM 10' | |
| **12** | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

| | | | |
|---|---|---|---|
| Date 11/20/08 | **JADE ENVIRONMENTAL, INC.** | Boring Id SB-17 |
| Start Time | 59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533 | GW Depth - Not Enc |
| Page 5 of 7 | Office (845) 897-2188/ Fax (845) 8972189 | Drilling Method DPT |

# Soil Boring Log

Project Name: **Clinton Terrace**
Address: **74-82 Croton Avenue**
**Ossining, New York**

Field Engineer: **Dave Pelletier**
Driller: **Bob Falcone**

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | Concrete | |
| 1 | | Refusal 2' | Boring abandoned |
| 2 | | | |
| 3 | | No Sampling | |
| **4** | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| **8** | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| **12** | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

Date 11/20/08
Start Time
Page 6 of 7

**JADE ENVIRONMENTAL, INC.**
59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533
Office (845) 897-2188/ Fax (845) 8972189

Boring Id SB-18
GW Depth - ± 5' bgs
Drilling Method HAND DPT

# Soil Boring Log

| | | | |
|---|---|---|---|
| Project Name: | **Clinton Terrace** | Field Engineer: | **Dave Pelletier** |
| Address: | **74-82 Croton Avenue**<br>**Ossining, New York** | Driller: | **Bob Falcone** |

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | CONCRETE | |
| 1 | | FINE SANDY LOAM | * HAND probe TO ± 9'<br>* Brown, looks clean, NO ODORS.<br>* GW collected VIA PERISTALSIS |
| 2 | | | |
| 3 | | | |
| **4** | | ▽ | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| **8** | | ↓ | |
| 9 | | | |
| 10 | | BORING TERMINATED @ 9' | |
| 11 | | Groundwater sample collected | |
| **12** | | VIA mill SLOT / PERISTALSIS | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

|  |  |  |
|---|---|---|
| Date 11/20/08 | **JADE ENVIRONMENTAL, INC.** | Boring Id WP-1 |
| Start Time | 59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533 | GW Depth - ± 5' |
| Page 1 of 1 | Office (845) 897-2188/ Fax (845) 8972189 | Drilling Method HAND DPT |

## Soil Boring Log

|  |  |  |  |
|---|---|---|---|
| Project Name: | **Clinton Terrace** | Field Engineer: | **Dave Pelletier** |
| Address: | **74-82 Croton Avenue**<br>**Ossining, New York** | Driller: | **Bob Falcone** |

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** |  | CONCRETE | * HAND boring TO 10' |
| 1 |  |  |  |
| 2 |  | FINE SANDY LOAM | * 1" WELL POINT INSTALLED TO ± 8'. |
| 3 | ▨ |  |  |
| **4** |  |  |  |
| 5 |  | ▽ | * MANHOLE INSTALLED |
| 6 | ▨ |  |  |
| 7 |  |  | * DEEP SOIL SAMPLE INSTALLED |
| **8** |  |  |  |
| 9 |  |  |  |
| 10 |  |  |  |
| 11 |  |  |  |
| **12** |  |  |  |
| 13 |  |  |  |
| 14 |  |  |  |
| 15 |  |  |  |
| **16** |  |  |  |
| 17 |  |  |  |
| 18 |  |  |  |
| 19 |  |  |  |
| **20** |  |  |  |
| 21 |  |  |  |
| 22 |  |  |  |
| 23 |  |  |  |
| **24** |  |  |  |
| 25 |  |  |  |
| 26 |  |  |  |
| 27 |  |  |  |
| **28** |  |  |  |
| 29 |  |  |  |
| 30 |  |  |  |
| 31 |  |  |  |
| **32** |  |  |  |
| 33 |  |  |  |
| 34 |  |  |  |
| 35 |  |  |  |
| **36** |  |  |  |

Date 12/15
Start Time
Page 1 of 4

**JADE ENVIRONMENTAL, INC.**
59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533
Office (845) 897-2188/ Fax (845) 8972189

Boring Id SB-19
GW Depth - Not Enc.
Drilling Method Ham DPT

## Soil Boring Log

Project Name: **Clinton Terrace**
Address: **74-82 Croton Avenue**
**Ossining, New York**

Field Engineer: **Dave Pelletier**
Driller: **Bob Falcone**

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | Concrete | |
| 1 | | Fine Sandy loam | *No odors or discolor. |
| 2 | | | |
| 3 | | | |
| **4** | | | |
| 5 | | | |
| 6 | | ↓ | |
| 7 | | | |
| **8** | | | |
| 9 | | Boring Term @8' | |
| 10 | | | |
| 11 | | | |
| **12** | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

Date 12/15
Start Time
Page 2 of 4

**JADE ENVIRONMENTAL, INC.**
59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533
Office (845) 897-2188/ Fax (845) 8972189

Boring Id SB-20
GW Depth - Not Enc.
Drilling Method Han DPT

# Soil Boring Log

Project Name: **Clinton Terrace**
Address: **74-82 Croton Avenue**
**Ossining, New York**

Field Engineer: **Dave Pelletier**
Driller: **Bob Falcone**

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | Concrete | |
| 1 | | | * Slight odor |
| 2 | | Fine sandy loam | under slab |
| 3 | | | |
| **4** | | | * Dissapates w/depth |
| 5 | | | |
| 6 | | ↓ | |
| 7 | | | |
| **8** | | | |
| 9 | | Boring Term @ 8' | |
| 10 | | | |
| 11 | | | |
| **12** | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

Date 12/15
Start Time
Page 3 of 4

**JADE ENVIRONMENTAL, INC.**
59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533
Office (845) 897-2188/ Fax (845) 8972189

Boring Id SB-21
GW Depth - Not Enc.
Drilling Method Hand DPT

## Soil Boring Log

Project Name: **Clinton Terrace**
Address: **74-82 Croton Avenue**
**Ossining, New York**

Field Engineer: **Dave Pelletier**
Driller: **Bob Falcone**

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | Concrete | |
| 1 | | | * Night work |
| 2 | ▨ | Fine sandy loam | * No odors or discoloration |
| 3 | | | |
| **4** | | ↓ | |
| 5 | | | |
| 6 | ▨ | | |
| 7 | | Refusal on rock | |
| **8** | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| **12** | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

Date 12/15
Start Time
Page 4 of 4

## JADE ENVIRONMENTAL, INC.

59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533
Office (845) 897-2188/ Fax (845) 8972189

Boring Id SB-22
GW Depth - Not Enc.
Drilling Method Hand DPT

# Soil Boring Log

Project Name: **Clinton Terrace**
Address: **74-82 Croton Avenue**
**Ossining, New York**

Field Engineer: **Dave Pelletier**
Driller: **Bob Falcone**

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| 0 | | Concrete | * Slight odor<br>No staining |
| 1 | | Fine to medium sand<br>w/ gravel | |
| 2 | ▨ | | |
| 3 | | ↓ | * |
| 4 | ▨ | | |
| 5 | | Refusal @ 4' | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| 32 | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| 36 | | | |

| | | | |
|---|---|---|---|
| Date 12/3/08 | **JADE ENVIRONMENTAL, INC.** | Boring Id WP-8 | |
| Start Time | 59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533 | GW Depth - ±11' | |
| Page 1 of 2 | Office (845) 897-2188/ Fax (845) 8972189 | Drilling Method Rig | DPT |

# Soil Boring Log

| | | | |
|---|---|---|---|
| Project Name: | **Clinton Terrace** | Field Engineer: | **Dave Pelletier** |
| Address: | **74-82 Croton Avenue**<br>**Ossining, New York** | Driller: | **Bob Falcone** |

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | Blacktop | |
| 1 | | | * No odors on |
| 2 | ▨ | Fine Sandy loam | discoloration |
| 3 | ▨ | w/silt | |
| **4** | | | |
| 5 | | ↓ | * 1" well point |
| 6 | | | installed to 2' |
| 7 | | | |
| **8** | | | * Very silty gw. |
| 9 | | | |
| 10 | ▨ | ▽ Siltier w/depth | |
| 11 | ▨ | | |
| **12** | | | |
| 13 | | ↓ | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | Boring Terminated 20' | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

| | | |
|---|---|---|
| Date 12/3 | **JADE ENVIRONMENTAL, INC.**<br>59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533<br>Office (845) 897-2188/ Fax (845) 8972189 | Boring Id WP-9 |
| Start Time | | GW Depth - ± 11' |
| Page 2 of 2 | | Drilling Method Rig DPT |

# Soil Boring Log

| | | | |
|---|---|---|---|
| Project Name: | **Clinton Terrace** | Field Engineer: | **Dave Pelletier** |
| Address: | **74-82 Croton Avenue**<br>**Ossining, New York** | Driller: | **Bob Falcone** |

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| 0 | | Blacktop | |
| 1 | | | * No odors or discoloration |
| 2 | | Fine sandy loam w/ silt | |
| 3 | | | |
| 4 | | | |
| 5 | | | * Siltier w/ depth |
| 6 | | | |
| 7 | | | * Some grayed silt in saturated zone |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | Siltier w/ depth | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| 21 | | Boring Terminated @ 20' | |
| 22 | | | |
| 23 | | | |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| 32 | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| 36 | | | |

Date 12/17/09
Start Time
Page 1 of 1

## JADE ENVIRONMENTAL, INC.

59 CIRCLE DR. HOPEWELL JUNCTION, NY 12533
Office (845) 897-2188/ Fax (845) 8972189

Boring Id WP-10/11/12
GW Depth - ±1'
Drilling Method Hand DPT

# Soil Boring Log

| | | | |
|---|---|---|---|
| Project Name: | **Clinton Terrace** | Field Engineer: | **Dave Pelletier** |
| Address: | **74-82 Croton Avenue**<br>**Ossining, New York** | Driller: | **Bob Falcone** |

| Depth | Sample Int. | Soil Description | Notes |
|---|---|---|---|
| **0** | | | |
| 1 | | | *Record only<br>*WP-10/12 to 20'<br>*WP-11 to 35' |
| 2 | | Installed Well Points 10-12 by 2¼" casing w/ disposable point. No soil cores collected<br>No soil sampling | |
| 3 | | | |
| **4** | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| **8** | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| **12** | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| **16** | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| **20** | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| **24** | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| **28** | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| **32** | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| **36** | | | |

# APPENDIX L

# SOIL / BEDROCK CHARACTERIZATION ADDENDUM

# Soil /Bedrock Investigation Addendum

# Clinton Terrace Shopping Center

74-82 Croton Avenue
Ossining, New York

Brownfield Project Number: 360110

Prepared by:
Jade Environmental, Inc.
59 Circle Dr
Hopewell Junction, NY 12533
(845) 897-2188 desk
(845) 897-2189 fax

Prepared for:
Mr. Robert Mehlich
Mehlich Associates
8 Depot Square
Tuckahoe, New York 10707
(914) 793-5050
(914) 793-5088-fax

Reviewed by:
Mr. John Miller
New York State Department of Environmental Conservation
Remedial Bureau C
625 Broadway
Albany, New York 12233

STATE OF NEW YORK
DAVE A PELLETIER
082127-1
LICENSED PROFESSIONAL ENGINEER

**August 4, 2010**

**Certified By** **Date** **Seal**

## Section I Project Background

In accordance with requirements of 6 NYCRR Part 375 Environmental Remediation programs, Jade Environmental, Inc. was retained to conduct the following testing activities at the Clinton Terrace Shopping Center Brownfield Project Number 360110:

1.1 Advance six (6) borings across the site in areas where no excavation is proposed to collect soil samples for analysis for a broad range of contaminants not necessarily related to existing contamination conditions on-site associated with the past use of the site as a dry cleaners.

1.2 Install a bedrock well down gradient of the former dry cleaners in order to test groundwater confined by rock overburden for PCE and its byproducts the known contaminantion at this facility.

The work was conducted in accordance with previously approved work plans filed with the New York State Department of Environmental Conservation ("NYSDEC"). The following report details the field work completed, the sampling and analysis conducted and the results of the analysis relative to applicable Standards, Criteria and Guidance ("SCG").

## Section II Soil Sampling Investigation

### *2.1 Boring Activities*

After having our wok plans approved, Jade initiated the soil investigation by visiting the site on July 9, 2010 equipped with a AMS Powerprobe to conduct the soil sampling. Using direct push technology and continuous soil sampling from grade, Jade advanced six (6) probes across the site to a maximum depth of 12' below grade at 4' intervals using properly decontaminated MacroCore® samplers fitted with dedicated acetate liners.

As approved by the NYSDEC, the soil sampling plan included the collection of two soil samples from each of 6 borings including a 2' - 4' soil sample and a 10'-12' soil sample and having the soil samples analyzed for a broad range of regulated contaminants including PCBs, Pesticides, Base/neutral SVOCs and RCRA Metals.

### *2.2 Sample Management*

From the first core sample collected from the 0' – 4' depth interval, the 2'-4' depth interval in the core sample was collected in lab supplied unpreserved soil sample jars and the remaining portion of the core (exclusive of blacktop) was transferred to a sealed zip lock bag.

The next core sample (4'-8') was inspected for visual staining and/or olfactory evidence of contamination, soil conditions noted and returned to the open borehole after the probe was complete.

Finally from the last core sample 8'-12', the 10'-12' portion of the sample was transferred to lab jars and the 8'-10' portion transferred to sealed zip lock bag.

The sample jars were labeled and placed in a cooler with ice for further preservation during transport to the lab.

### *2.3 Field Screening Activities/Results*

Upon retrieval of the liner from the MacroCore®, the soil was first inspected for staining, discoloration and/or odors and soil conditions noted. At the completion of each boring, the head space portion of the zip lock bags was pierced with the tip of a photo-ionization detector ("PID") and VOC emissions measured.

During field screening, no visual or olfactory evidence of contamination was noted. In addition, no VOC emissions were detected in any of the soil samples screened. Soil was consistently glacial till throughout the field of investigation containing predominantly fine to medium silty sands with trace gravel and occasional boulders. Except for refusal on a suspected boulder at a depth of approximately 6' at SB-3, no evidence of bedrock was identified at any of the test locations. Please refer to the Sample Location Plan attached hereto for approximate boring locations across the Site.

### *2.4 Limitations*

During the advancement of SB-3 refusal was encountered at approximately 6' below grade on a suspected boulder, as such, this test location was relocated a few feet east and finished to intended depth. In addition, as a result of very dry soil conditions, recovery during collection of the deep samples at SB-5 and SB-6 was limited. As such, deep soil samples collected from these boring were limited to 10'-11' and 8'-10' respectively. Finally, because the parking lot was active during the sampling and due to the numerous buried utilities beneath the pavement, our proposed boring locations were limited.

## Section III Bedrock Well Installation / Sampling

### 3.1 Well Installtion/Construction

On July 19, 2010, Jade returned to the site equipped with a Diedrich Mobil Auger Mud Rotary Rig to install the approved 25' deep well fitted with a 10' length of 9" casing grouted 5' into the anticipated shallow bedrock in the proposed well location. During the drilling, break through was encountered at approximately 15' below grade and soil encountered beneath the rock lens was found to consist of relatively dry brown silty fine to medium sand. The underlying soil extended to a depth of approximately 30' below grade, before the next rock was encountered. Drilling through the second rock layer extended to a depth of approximately 10' (40' below grade) before break through was again encountered. The second soil layer continued for an additional 10’ (50’ below grade) before a third layer of rock was encountered. After drilling approximately 5’ into this third layer of rock, drilling was discontinued and a 60’ length of casing was driven in-place and grouted from the bottom up and the top down using a neat cement.

After the casing was installed, the 9 ¼” rock bit was replaced with a 6 ¼” bit and the driller continued drilling from the 60’ depth to a final depth of 75’ below grade, exposing 15’ of rock face. No break through was encountered between the 55’ depth interval to final depth of 75’ depth interval indicating the boring intercepted the underlying competent bedrock formation.

## 3.2 Well Inspection/Purging/Sampling

After drilling was complete, the borehole/well was washed free of rock/sand and grout with approximately 50 gallons of clean tap water forced through the drill piping under high pressure. Upon completion of the wash out, discharge water was exceptionally clear with little suspended silts or other suspended/settled solids.

The following day, Jade returned to the well and immediately upon opening the well cap probed the well head space beneath the compression plug with the tip of our PID in order to measure any VOCs that may have collected in the casing overnight. No VOCs were measured in the casing.

After testing the air space in the casing, using an electronic water level meter, Jade measured depth to groundwater at 16.16’ below grade, significantly higher than the 60+’ below grade measured immediately after completion of the boring/prior to clean-out. After taking the depth measurement, Jade bailed a total of 25 gallons (5 buckets) of water from the well which was transferred to a sealed 55-gallon drum. After purging, the depth to water was remeasured at a little over 22’ below grade, indicating very low recovery from the aquifer.

Using a new dedicated bailer, Jade collected a water sample from the well and immediately transferred a portion of that sample into two (2) lab supplied/preserved 40 ml water sample jars, without headspace. Both samples were labeled and packed in a cooler with ice for further preservation during overnight delivery to the lab.

## **Section IV Lab Analysis**

### 4.1 Lab Analysis

Soil samples were analyzed via standard lab turn around time for PCBs by EPA method 8082, base/neutral range semi-volatile organic compounds via EPA analytical method 8270, regulated pesticides via EPA analytical method 8080 and federally regulated metals. Groundwater collected from the bedrock well was only analyzed for VOCs via EPA analytical method 8260 and that analysis was expedited so that both lab reports would be completed simultaneously.

All analysis was conducted by a chemistry lab licensed by the state of New York. All appropriate QA/QC procedures will be used during the sampling.

## **Section V Soil Analysis Results**

### *5.1 Soil Analysis PCBs, Pesticides and SVOCs*

The lab's analysis of the 12 soil samples submitted did not result in the detection of a single PCB, Pesticide or SVOC searched for. Concentrations of PCBs, Pesticides and base/neutral range SVOCs were ND (non-detect/below the labs reportable detection limit). Please refer to the soil analysis report attached hereto for detection limits acheived.

### *5.2 Soil Analysis Metals*

The metals analysis did detect multiple metals above the reportable detection limits as would be expected since many of the metals analyzed for are typically found naturally in soil in the region. Specifically, Jade ordered the soil be analyzed for metals regulated by the EPA under the federal Resource Conservation and Recovery Act ("RCRA"). These metals, their predominant uses, and applicable SCGs provided in 6 NYCRR Part 375 Table 6.8(b) Restricted Use Soil Clean-up Objectives are as follows:

1. Arsenic (As) – Found predominantly in herbicides, insecticides and pesticides including those used to preserve lumber. Use in residential and general construction products banned in Jan 1, 2004. Used in some medical products as well. The states SCG for this substance provided in Table 375-6.8(b) "Restricted-Residential" is 16 ppm.
2. Barium (Ba) – Found in paints, fireworks and has some medical uses. The states SCG for this substance provided in Table 375-6.8(b) "Restricted-Commercial" is is 400 ppm.
3. Cadmium (Cd) – Used predominantly in batteries and steel plating for corrosion protection. Average concentration in soil are less then 0.5 ppm. The states SCO for this substance provided in Table 375-6.8(b) "Restricted-Commercial" is 9.3 ppm.
4. Chromium (Cr) - Used predominantly in the steel industry to produce stainless steel and electroplating to protect from corrosion. Average concentrations in soil are less than 100 ppm. The states SCO for this substance provided in Table 375-6.8(b) "Restricted-Commercial" is 1500 ppm.
5. Lead (Pb) – Used predominantly in lead acid batteries, bullets, weights, solder, pewter and fusible alloys. The states SCO for this substance provided in Table 375-6.8(b) "Restricted- Commercial" is 1000 ppm.

## Section V Soil Analysis Results

6. Mercury (Hg) – Used primarily in scientific apparatus including various meters as well as electrical switches and light bulb. The states SCO for this substance provided in Table 375-6.8(b) "Restricted- Commercial" is 2.8 ppm.
7. Selenium (Se) – Predominantly used in the electrical industry and on copy machines and printers, it is being replaced with silicone. The states SCO for this substance provided in Table 375-6.8(b) "Restricted- Commercial" is 1500 ppm.
8. Silver (Ag) – Used predominantly in coins, jewelry, cutlery and flatware as well as decorative items and photographic film. The states SCO for this substance provided in Table 375-6.8(b) "Restricted- Commercial" is 1500 ppm

Table 1 – Summary of Metals Analysis

| Metal (SCO)[3] | SAMPLE IDENTIFICATION | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SB-1 (2'-4') | SB-1 (10'-12') | SB-2 (2'-4') | SB-2 (10'-12') | SB-3 (2'-3') | SB-3 (10'-12') | SB-4 (2'-4') | SB-4 (10'-12') | SB-5 (2'-4') | SB-5 (10'-11') | SB-6 (2'-4') | SB-6 (8'-10') |
| As (16) | 1.6 | 0.8 | 4.9 | 1.4 | 3.5 | 2.1 | 2.1 | <0.7 | 10.6 | 3.5 | 1.0 | 1.9 |
| Ba (400) | 65.1 | 65.5 | 89.5 | 63.0 | 77.5 | 51.5 | 205 | 90.9 | 112 | 79.0 | 65.8 | 82.0 |
| Cd (9.3) | <0.39 | <0.39 | <0.38 | <0.39 | <0.34 | <0.38 | <0.34 | <0.37 | <0.50 | <0.35 | <0.36 | <0.38 |
| Cr (1500) | 17.4 | 19.6 | 16.5 | 41.9 | 22.1 | 21.7 | 24.3 | 24.8 | 21.3 | 19.6 | 15.6 | 22.1 |
| Pb (1000) | 19.8 | 5.79 | 156 | 3.87 | 26.7 | 9.30 | 383 | 2.83 | 122 | 27.0 | 5.57 | 19.7 |
| Hg (2.8) | <0.07[1] | <0.07 | 0.14 | <0.09 | <0.07 | <0.09 | <0.06 | <0.07 | 0.17 | 0.12 | <0.06 | <0.06 |
| Se (1500) | <1.6 | <1.6 | <1.5 | <1.5 | <1.3 | <1.5 | <1.3 | <1.5 | <1.4 | <1.4 | <1.5 | <1.5 |
| Ag (1500) | <0.39 | <0.39 | <0.38 | <0.39 | <0.34 | <0.38 | <0.34 | <0.37 | <0.34 | <0.35 | <0.36 | <0.38 |

Notes

1. < indicates "not detected" (ND), concentration below the reportable detection limit.
2. All concentrations including SCOs provided in parts per million ("PPM")
3. Due to the lack of groundwater use and critical environmental features on or adjacent the site, "Protection of Human Health - Restricted Commercial Use" was used.

As can be seen in the summary table, the only metals detected in the samples included Arsenic, Barium, Chromium and Lead. In three of the 12 samples, Mercury was detected just above the reportable limit. **Of the five metals detected, none were measured at concentrations that exceeded the states soil clean-up objectives for Restricted – Commercial land use provided in Table 6.8 (b) of 6 NYCRR Part 375.**

## Section VI Groundwater Analysis Results

### *6.1 Groundwater Analysis VOCs*

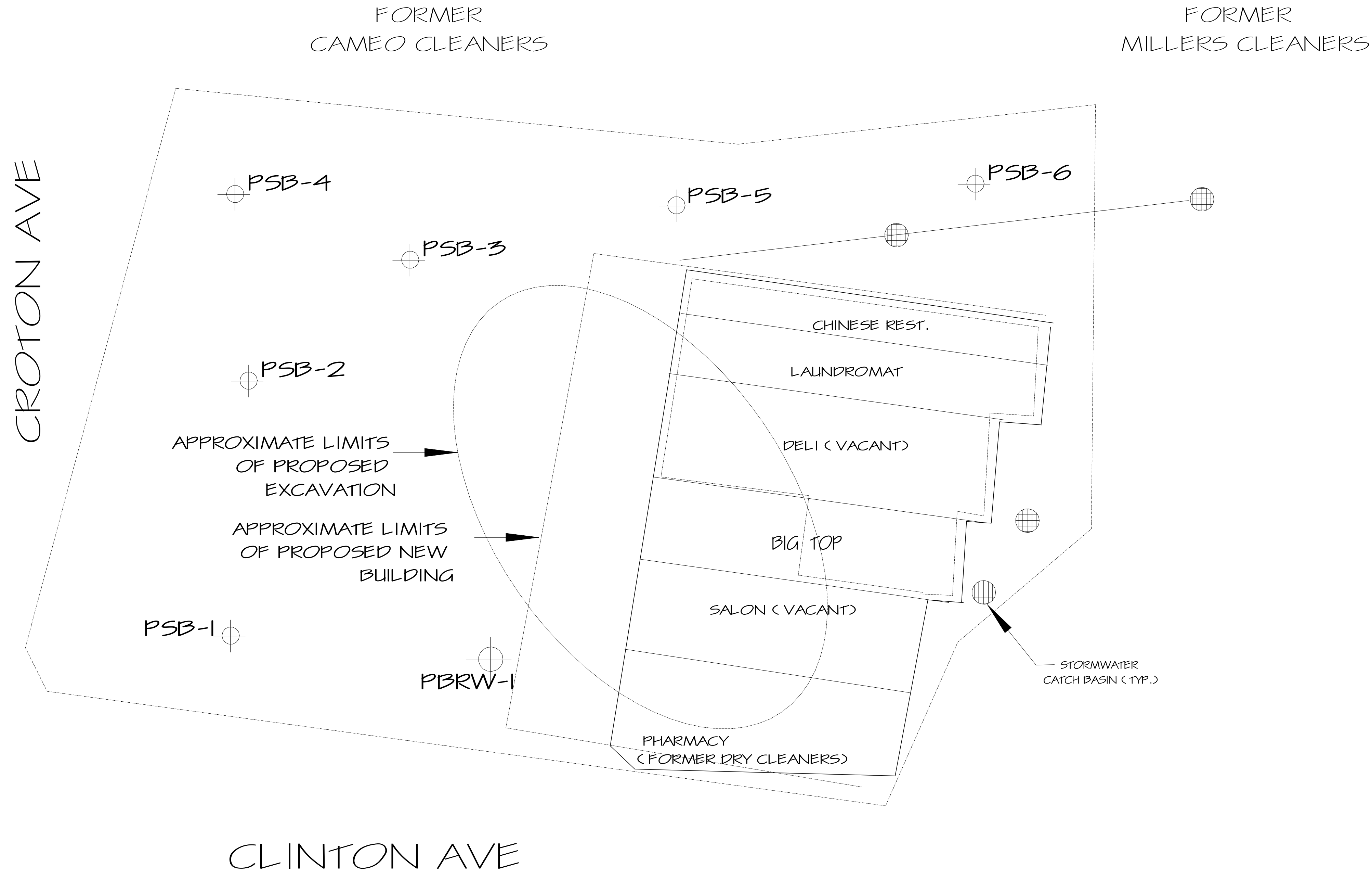
Our analysis of groundwater for VOCs did not result in the detection of any of the VOCs listed in the analysis above the reportable detection limit which was consistently 1.0 ppb or better, except for Methyl tert Butyl Ether ("MTBE") at 11 ppb. MTBE is an extremely soluble volatile organic added to gasoline to assist in reduced tail pipe emissions in compliance with the Federal Clean Air Act ("CAA").

Because this compound is associated with gasoline spillage and not dry cleaning processes, Jade concludes it is originating from an off-site source, possibly the former gas station located south of the Site across Clinton Avenue, a former SPILL site investigated and remediated by the Bureau of SPILLS Mgmt.

Because no chlorinated solvents were identified in the confined aquifer beneath the upper plume, Jade concludes the portion of the contaminant plume with a specific gravity greater than water has not migrated vertically to the extent that it has reached the underlying confined aquifer. Based on these results, Jade concudes further investigation of the underlying confined aquifer is recommended.

Based on the results of this investigation and in accordance with the SCGs provided in 6 NYCRR Part 375 Subparts 375-1 thru 375-5 and 375-7, Jade concludes no further investigation or remediation of the confined aquifer or unsaturated soils outside the proposed limits of excavation are required.

A copy of this report should be adhered to and become an intergral part of the Remedial Investigation / Feasability Study ("RI/FS") for this site and subject to review and approval by the NYSDEC and the participating public.



LEGEND

⊕ PSB-4 PROPOSED SOIL BORING LOCATION ( APPROXIMATE)

⊕ PBRW-1 PROPOSED BEDROCK WELL LOCATION ( APPROXIMATE)

REMEDIAL INVESTIGATION ADDENDUM
PROPOSED SOIL SAMPLE LOCATION MAP
PREPARED BY JADE ENVIRONMENTAL, INC.
JULY 6, 2010

PHOENIX
Environmental Laboratories, Inc.

**Friday, July 16, 2010**

**Attn: Mr. David Pelletier**
**Jade Environmental, Inc.**
**59 Circle Drive**
**Hopewell Junction, NY 12533**

**Project ID:**
**Sample ID#s: AZ23009 - AZ23020**

**This laboratory is in compliance with the QA/QC procedures outlined in EPA 600/4-79-019, Handbook for Analytical Quality in Water and Waste Water, March 1979, SW846 QA/QC and NELAC requirements of procedures used.**

**This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.**

**A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.**

**If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.**

**Sincerely yours,**

Phyllis Shiller

**Phyllis Shiller**

**Laboratory Director**

**NELAC - #NY11301**
**CT Lab Registration #PH-0618**
**MA Lab Registration #MA-CT-007**
**ME Lab Registration #CT-007**
**NH Lab Registration #213693-A,B**
**NJ Lab Registration #CT-003**
**NY Lab Registration #11301**
**PA Lab Registration #68-03530**
**RI Lab Registration #63**
**VT Lab Registration #VT11301**

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/12/10 | 0:00 |
| Location Code: | JADEENV | Received by: | LDF | 07/13/10 | 10:30 |
| Rush Request: | RUSH## | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23009

Project ID:

Client ID: SB 1 2-4 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | 1.6 | 0.8 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 65.1 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | < 0.39 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 17.4 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 19.8 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Mercury | < 0.07 | 0.07 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.6 | 1.6 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.39 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 91 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1500 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthylene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Anthracene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benz(a)anthracene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzidine | ND | 1500 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(a)pyrene | ND | 150 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzoic acid | ND | 370 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl alcohol | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Chrysene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 150 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenzofuran | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Diethyl phthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dimethylphthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-butylphthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-octylphthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluoranthene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluorene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobenzene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobutadiene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachloroethane | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Isophorone | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Naphthalene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Nitrobenzene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 150 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Phenanthrene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Pyrene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 71 | | % | 07/15/10 | | KCA | SW8270 |
| % Nitrobenzene-d5 | 57 | | % | 07/15/10 | | KCA | SW8270 |
| % Terphenyl-d14 | 55 | | % | 07/15/10 | | KCA | SW8270 |

## Polychlorinated Biphenyls

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1221 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1232 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |

Project ID:
Client ID: SB 1 2-4 FT

Phoenix I.D.: AZ23009

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 76 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 84 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 54 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 11 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 74 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 73 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 19, 2010**

PHOENIX

NY # 11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/12/10 | 0:00 |
| Location Code: | JADEENV | Received by: | LDF | 07/13/10 | 10:30 |
| Rush Request: | RUSH## | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23010

Project ID:

Client ID: SB 1 10-12 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | 0.8 | 0.8 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 65.5 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | < 0.39 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 19.6 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 5.79 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Mercury | < 0.07 | 0.07 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.6 | 1.6 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.39 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 90 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1500 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthylene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Anthracene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benz(a)anthracene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzidine | ND | 1500 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(a)pyrene | ND | 150 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzoic acid | ND | 370 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl alcohol | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Chrysene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 150 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenzofuran | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Diethyl phthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dimethylphthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-butylphthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-octylphthalate | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluoranthene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluorene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobenzene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobutadiene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachloroethane | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Isophorone | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Naphthalene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Nitrobenzene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 150 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Phenanthrene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Pyrene | ND | 260 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 67 | | % | 07/15/10 | | KCA | SW8270 |
| % Nitrobenzene-d5 | 55 | | % | 07/15/10 | | KCA | SW8270 |
| % Terphenyl-d14 | 54 | | % | 07/15/10 | | KCA | SW8270 |

## Polychlorinated Biphenyls

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1221 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1232 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |

Project ID:
Client ID: SB 1 10-12 FT

Phoenix I.D.: AZ23010

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 82 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 91 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 54 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 11 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 82 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 83 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 19, 2010**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/12/10 | 0:00 |
| Location Code: | JADEENV | Received by: | LDF | 07/13/10 | 10:30 |
| Rush Request: | RUSH## | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23011

Project ID:

Client ID: SB 2 2-4 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | 4.9 | 0.8 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 89.5 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | < 0.38 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 16.5 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 156 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Mercury | 0.14 | 0.07 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.5 | 1.5 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.38 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 86 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 270 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 270 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 270 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 270 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 270 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 270 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 270 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 270 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1500 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 270 | ug/Kg | 07/15/10 | | KCA | SW8270 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| 4-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Acenaphthene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Acenaphthylene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Anthracene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Benz(a)anthracene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Benzidine | ND | 1500 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Benzo(a)pyrene | ND | 150 (J) | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Benzoic acid | ND | 380 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Benzyl alcohol | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Chrysene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 150 (J) | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Dibenzofuran | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Diethyl phthalate | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Dimethylphthalate | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Di-n-butylphthalate | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Di-n-octylphthalate | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Fluoranthene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Fluorene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Hexachlorobenzene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Hexachlorobutadiene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Hexachloroethane | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Isophorone | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Naphthalene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Nitrobenzene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 150 (J) | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Phenanthrene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| Pyrene | ND | 270 | ug/Kg | 07/15/10 |  | KCA | SW8270 |
| **QA/QC Surrogates** |  |  |  |  |  |  |  |
| % 2-Fluorobiphenyl | 66 |  | % | 07/15/10 |  | KCA | SW8270 |
| % Nitrobenzene-d5 | 56 |  | % | 07/15/10 |  | KCA | SW8270 |
| % Terphenyl-d14 | 55 |  | % | 07/15/10 |  | KCA | SW8270 |

## Polychlorinated Biphenyls

|  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 380 | ug/Kg | 07/14/10 |  | MH | SW 8082 |
| PCB-1221 | ND | 380 | ug/Kg | 07/14/10 |  | MH | SW 8082 |
| PCB-1232 | ND | 380 | ug/Kg | 07/14/10 |  | MH | SW 8082 |

Project ID:
Client ID: SB 2 2-4 FT

Phoenix I.D.: AZ23011

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 380 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 380 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 380 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 380 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 380 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 380 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 82 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 92 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 37 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 37 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 37 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 5.8 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 58 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 5.8 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 37 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 37 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 37 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 37 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 37 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 5.8 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 12 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 180 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 180 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 81 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 82 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 19, 2010**

**PHOENIX**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/12/10 | 0:00 |
| Location Code: | JADEENV | Received by: | LDF | 07/13/10 | 10:30 |
| Rush Request: | RUSH## | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23012

Project ID:

Client ID: SB 2 10-12 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | 1.4 | 0.8 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 63.0 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | < 0.39 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 41.9 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 3.87 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Mercury | < 0.09 | 0.09 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.5 | 1.5 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.39 | 0.39 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 84 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1600 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthylene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Anthracene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benz(a)anthracene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzidine | ND | 1600 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(a)pyrene | ND | 160 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzoic acid | ND | 390 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl alcohol | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Chrysene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 160 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenzofuran | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Diethyl phthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dimethylphthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-butylphthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-octylphthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluoranthene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluorene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobenzene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobutadiene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachloroethane | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Isophorone | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Naphthalene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Nitrobenzene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 160 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Phenanthrene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Pyrene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 63 | | % | 07/15/10 | | KCA | SW8270 |
| % Nitrobenzene-d5 | 54 | | % | 07/15/10 | | KCA | SW8270 |
| % Terphenyl-d14 | 51 | | % | 07/15/10 | | KCA | SW8270 |

## Polychlorinated Biphenyls

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 390 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1221 | ND | 390 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1232 | ND | 390 | ug/Kg | 07/14/10 | | MH | SW 8082 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 390 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 390 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 390 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 390 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 390 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 390 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 81 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 96 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 38 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 38 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 38 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 5.9 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 59 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 5.9 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 38 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 38 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 38 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 38 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 38 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 5.9 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 12 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 190 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 190 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 77 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 83 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 19, 2010**

PHOENIX

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/12/10 | 0:00 |
| Location Code: | JADEENV | Received by: | LDF | 07/13/10 | 10:30 |
| Rush Request: | RUSH## | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23013

Project ID:

Client ID: SB 3 2-3 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | 3.5 | 0.7 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 77.5 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | < 0.34 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 22.1 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 26.7 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Mercury | < 0.07 | 0.07 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.3 | 1.3 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.34 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 92 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1400 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthylene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Anthracene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benz(a)anthracene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzidine | ND | 1400 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(a)pyrene | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzoic acid | ND | 360 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl alcohol | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Chrysene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenzofuran | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Diethyl phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dimethylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-butylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-octylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluorene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobutadiene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachloroethane | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Isophorone | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Naphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Nitrobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Phenanthrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Pyrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 67 | | % | 07/15/10 | | KCA | SW8270 |
| % Nitrobenzene-d5 | 56 | | % | 07/15/10 | | KCA | SW8270 |
| % Terphenyl-d14 | 51 | | % | 07/15/10 | | KCA | SW8270 |

## Polychlorinated Biphenyls

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1221 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1232 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |

Project ID:                                                                                                    Phoenix I.D.: AZ23013

Client ID: SB 3 2-3 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 84 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 96 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 54 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 11 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 79 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 84 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

**Phyllis Shiller, Laboratory Director**
**July 19, 2010**

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/12/10 | 0:00 |
| Location Code: | JADEENV | Received by: | LDF | 07/13/10 | 10:30 |
| Rush Request: | RUSH## | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23014

Project ID:

Client ID: SB 3 10-12 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | 2.1 | 0.8 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 51.5 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | < 0.38 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 21.7 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 9.30 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Mercury | < 0.09 | 0.09 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.5 | 1.5 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.38 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 82 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1600 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Nitroaniline | ND | 1100 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthylene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Anthracene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benz(a)anthracene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzidine | ND | 1600 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(a)pyrene | ND | 160 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzoic acid | ND | 390 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl alcohol | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Chrysene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 160 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenzofuran | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Diethyl phthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dimethylphthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-butylphthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-octylphthalate | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluoranthene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluorene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobenzene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobutadiene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachloroethane | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Isophorone | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Naphthalene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Nitrobenzene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 160 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Phenanthrene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Pyrene | ND | 280 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 75 | | % | 07/15/10 | | KCA | SW8270 |
| % Nitrobenzene-d5 | 79 | | % | 07/15/10 | | KCA | SW8270 |
| % Terphenyl-d14 | 82 | | % | 07/15/10 | | KCA | SW8270 |

## Polychlorinated Biphenyls

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 400 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1221 | ND | 400 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1232 | ND | 400 | ug/Kg | 07/14/10 | | MH | SW 8082 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 400 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 400 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 400 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 400 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 400 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 400 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 62 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 84 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 39 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 39 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 39 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 6.0 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 60 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 6.0 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 39 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 39 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 39 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 39 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 39 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 6.0 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 12 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 19 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 190 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 190 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 79 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 82 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 19, 2010**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/12/10 | 0:00 |
| Location Code: | JADEENV | Received by: | LDF | 07/13/10 | 10:30 |
| Rush Request: | RUSH## | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23015

Project ID:

Client ID: SB 4 2-4 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | 2.1 | 0.7 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 205 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | 0.34 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 24.3 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 383 | 3.4 | mg/Kg | 07/16/10 | | EK | SW6010 |
| Mercury | < 0.06 | 0.06 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.3 | 1.3 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.34 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 91 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1100 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1500 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1100 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |

Project ID:
Client ID: SB 4 2-4 FT

Phoenix I.D.: AZ23015

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 4-Nitroaniline | ND | 1100 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Acenaphthene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Acenaphthylene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Anthracene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benz(a)anthracene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzidine | ND | 1500 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzo(a)pyrene | ND | 150 (J) | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzoic acid | ND | 370 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzyl alcohol | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Chrysene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 150 (J) | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Dibenzofuran | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Diethyl phthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Dimethylphthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Di-n-butylphthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Di-n-octylphthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Fluoranthene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Fluorene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Hexachlorobenzene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Hexachlorobutadiene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Hexachloroethane | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Isophorone | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Naphthalene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Nitrobenzene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 150 (J) | ug/Kg | 07/14/10 | | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Phenanthrene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Pyrene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 68 | | % | 07/14/10 | | KCA | SW8270 |
| % Nitrobenzene-d5 | 63 | | % | 07/14/10 | | KCA | SW8270 |
| % Terphenyl-d14 | 32 | | % | 07/14/10 | | KCA | SW8270 |

## Polychlorinated Biphenyls

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1221 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1232 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |

Project ID:
Client ID: SB 4 2-4 FT

Phoenix I.D.: AZ23015

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 85 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 92 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 5.5 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 55 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 5.5 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 5.5 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 11 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 180 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 180 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 79 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 82 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 19, 2010**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/12/10 | 0:00 |
| Location Code: | JADEENV | Received by: | LDF | 07/13/10 | 10:30 |
| Rush Request: | RUSH## | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23016

Project ID:

Client ID: SB 4 10-12 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | < 0.7 | 0.7 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 90.9 | 0.37 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | < 0.37 | 0.37 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 24.8 | 0.37 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 2.83 | 0.37 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Mercury | < 0.07 | 0.07 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.5 | 1.5 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.37 | 0.37 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 90 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1100 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1500 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1100 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| 4-Nitroaniline | ND | 1100 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Acenaphthene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Acenaphthylene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Anthracene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benz(a)anthracene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzidine | ND | 1500 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzo(a)pyrene | ND | 150 (J) | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzoic acid | ND | 370 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzyl alcohol | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Chrysene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 150 (J) | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Dibenzofuran | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Diethyl phthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Dimethylphthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Di-n-butylphthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Di-n-octylphthalate | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Fluoranthene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Fluorene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Hexachlorobenzene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Hexachlorobutadiene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Hexachloroethane | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Isophorone | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Naphthalene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Nitrobenzene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 150 (J) | ug/Kg | 07/14/10 | | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Phenanthrene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| Pyrene | ND | 260 | ug/Kg | 07/14/10 | | KCA | SW8270 |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 67 | | % | 07/14/10 | | KCA | SW8270 |
| % Nitrobenzene-d5 | 62 | | % | 07/14/10 | | KCA | SW8270 |
| % Terphenyl-d14 | 31 | | % | 07/14/10 | | KCA | SW8270 |

## Polychlorinated Biphenyls

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 370 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1221 | ND | 370 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1232 | ND | 370 | ug/Kg | 07/14/10 | | MH | SW 8082 |

Project ID:                                                                                              Phoenix I.D.: AZ23016

Client ID: SB 4 10-12 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 370 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 370 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 370 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 370 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 370 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 370 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 78 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 92 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 5.5 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 55 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 5.5 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 35 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 5.5 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 11 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 18 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 180 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 180 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 74 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 86 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 19, 2010**

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/12/10 | 0:00 |
| Location Code: | JADEENV | Received by: | LDF | 07/13/10 | 10:30 |
| Rush Request: | RUSH## | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23017

Project ID:

Client ID: SB 5 2-4 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | 10.6 | 0.7 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 112 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | 0.50 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 21.3 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 122 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Mercury | 0.17 | 0.07 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.4 | 1.4 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.34 | 0.34 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 90 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1400 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthylene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Anthracene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benz(a)anthracene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzidine | ND | 1400 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(a)pyrene | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzoic acid | ND | 360 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl alcohol | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Chrysene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenzofuran | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Diethyl phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dimethylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-butylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-octylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluorene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobutadiene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachloroethane | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Isophorone | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Naphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Nitrobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Phenanthrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Pyrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 71 | | % | 07/15/10 | | KCA | SW8270 |
| % Nitrobenzene-d5 | 74 | | % | 07/15/10 | | KCA | SW8270 |
| % Terphenyl-d14 | 76 | | % | 07/15/10 | | KCA | SW8270 |

## Polychlorinated Biphenyls

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1221 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1232 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |

Project ID:
Client ID: SB 5 2-4 FT

Phoenix I.D.: AZ23017

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 84 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 91 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 54 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 11 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 76 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 83 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 19, 2010**

PHOENIX

NY # 11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/12/10 | 0:00 |
| Location Code: | JADEENV | Received by: | LDF | 07/13/10 | 10:30 |
| Rush Request: | RUSH## | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23018

Project ID:

Client ID: SB 5 10-11 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | 3.5 | 0.7 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 79.0 | 0.35 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | < 0.35 | 0.35 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 19.6 | 0.35 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 27.0 | 0.35 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Mercury | 0.12 | 0.07 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.4 | 1.4 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.35 | 0.35 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 91 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1400 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |

Project ID:
Client ID: SB 5 10-11 FT

Phoenix I.D.: AZ23018

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthylene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Anthracene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benz(a)anthracene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzidine | ND | 1400 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(a)pyrene | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzoic acid | ND | 360 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl alcohol | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Chrysene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenzofuran | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Diethyl phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dimethylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-butylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-octylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluorene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobutadiene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachloroethane | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Isophorone | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Naphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Nitrobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Phenanthrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Pyrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 71 | | % | 07/15/10 | | KCA | SW8270 |
| % Nitrobenzene-d5 | 80 | | % | 07/15/10 | | KCA | SW8270 |
| % Terphenyl-d14 | 79 | | % | 07/15/10 | | KCA | SW8270 |

## Polychlorinated Biphenyls

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1221 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1232 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |

Project ID:

Client ID: SB 5 10-11 FT

Phoenix I.D.: AZ23018

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 360 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 83 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 90 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 54 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 5.4 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 11 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 73 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 81 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**

**July 19, 2010**

PHOENIX

NY # 11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

**Sample Information**

Matrix: SOIL
Location Code: JADEENV
Rush Request: RUSH##
P.O.#:

| Custody Information | | Date | Time |
|---|---|---|---|
| Collected by: | | 07/12/10 | 0:00 |
| Received by: | LDF | 07/13/10 | 10:30 |
| Analyzed by: | see "By" below | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23019

Project ID:

Client ID: SB 6 2-4 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | 1.0 | 0.7 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 65.8 | 0.36 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | < 0.36 | 0.36 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 15.6 | 0.36 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 5.57 | 0.36 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Mercury | < 0.06 | 0.06 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.5 | 1.5 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.36 | 0.36 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 93 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1400 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthylene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Anthracene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benz(a)anthracene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzidine | ND | 1400 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(a)pyrene | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzoic acid | ND | 360 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl alcohol | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Chrysene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenzofuran | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Diethyl phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dimethylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-butylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-octylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluorene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobutadiene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachloroethane | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Isophorone | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Naphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Nitrobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Phenanthrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Pyrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 71 | | % | 07/15/10 | | KCA | SW8270 |
| % Nitrobenzene-d5 | 65 | | % | 07/15/10 | | KCA | SW8270 |
| % Terphenyl-d14 | 33 | | % | 07/15/10 | | KCA | SW8270 |

## Polychlorinated Biphenyls

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1221 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1232 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |

Project ID:
Client ID: SB 6 2-4 FT

Phoenix I.D.: AZ23019

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 84 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 93 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 5.3 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 53 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 5.3 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 5.3 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 10 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 77 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 87 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 19, 2010**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

July 16, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOIL | Collected by: | | 07/12/10 | 0:00 |
| Location Code: | JADEENV | Received by: | LDF | 07/13/10 | 10:30 |
| Rush Request: | RUSH## | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ23009
Phoenix ID: AZ23020

Project ID:

Client ID: SB 6 8-10 FT

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Arsenic | 1.9 | 0.8 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Barium | 82.0 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Cadmium | < 0.38 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Chromium | 22.1 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Lead | 19.7 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Mercury | < 0.06 | 0.06 | mg/Kg | 07/14/10 | | RS | SW-7471 |
| Selenium | < 1.5 | 1.5 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Silver | < 0.38 | 0.38 | mg/Kg | 07/15/10 | | EK | SW6010 |
| Percent Solid | 93 | | % | 07/13/10 | | H / JL | E160.3 |
| Soil Extraction for PCB | Completed | | | 07/13/10 | | BB | SW3545 |
| Soil Extraction for Pesticide | Completed | | | 07/13/10 | | BB/D | SW3545 |
| Soil Extraction for SVOA | Completed | | | 07/13/10 | | BS/D | SW3545 |
| Mercury Digestion | Completed | | | 07/14/10 | | K | SW7471 |
| Total Metals Digest | Completed | | | 07/13/10 | | C/AG | SW846 - 3050 |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,2-Diphenylhydrazine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,3-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 1,4-Dichlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,4-Dinitrotoluene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2,6-Dinitrotoluene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Chloronaphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Methylnaphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 2-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3,3'-Dichlorobenzidine | ND | 1400 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 3-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Bromophenyl phenyl ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Chlorophenyl phenyl ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| 4-Nitroaniline | ND | 1000 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Acenaphthylene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Anthracene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benz(a)anthracene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzidine | ND | 1400 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(a)pyrene | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(b)fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(ghi)perylene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzo(k)fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzoic acid | ND | 350 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl alcohol | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Benzyl butyl phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethoxy)methane | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroethyl)ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-chloroisopropyl)ether | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Bis(2-ethylhexyl)phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Chrysene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenz(a,h)anthracene | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dibenzofuran | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Diethyl phthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Dimethylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-butylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Di-n-octylphthalate | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluoranthene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Fluorene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorobutadiene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachlorocyclopentadiene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Hexachloroethane | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Indeno(1,2,3-cd)pyrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Isophorone | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Naphthalene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Nitrobenzene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodimethylamine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodi-n-propylamine | ND | 140 (J) | ug/Kg | 07/15/10 | | KCA | SW8270 |
| N-Nitrosodiphenylamine | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Phenanthrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| Pyrene | ND | 250 | ug/Kg | 07/15/10 | | KCA | SW8270 |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 64 | | % | 07/15/10 | | KCA | SW8270 |
| % Nitrobenzene-d5 | 56 | | % | 07/15/10 | | KCA | SW8270 |
| % Terphenyl-d14 | 49 | | % | 07/15/10 | | KCA | SW8270 |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1221 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1232 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |

Project ID:
Client ID: SB 6 8-10 FT

Phoenix I.D.: AZ23020

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| PCB-1242 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1248 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1254 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1260 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1262 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| PCB-1268 | ND | 350 | ug/Kg | 07/14/10 | | MH | SW 8082 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 80 | | % | 07/14/10 | | MH | SW 8082 |
| % TCMX | 89 | | % | 07/14/10 | | MH | SW 8082 |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDE | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| 4,4' -DDT | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| a-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Alachlor | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Aldrin | ND | 5.3 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| b-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Chlordane | ND | 53 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| d-BHC | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Dieldrin | ND | 5.3 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan I | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan II | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endosulfan sulfate | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin aldehyde | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Endrin ketone | ND | 34 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| g-BHC | ND | 5.3 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor | ND | 11 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Heptachlor epoxide | ND | 17 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Methoxychlor | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| Toxaphene | ND | 170 | ug/Kg | 07/15/10 | | KCA | SW8081 |
| **QA/QC Surrogates** | | | | | | | |
| % DCBP | 70 | | % | 07/15/10 | | KCA | SW8081 |
| % TCMX | 81 | | % | 07/15/10 | | KCA | SW8081 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 19, 2010**

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823
NY # 11301

# QA/QC Report

July 19, 2010

## QA/QC Data

SDG I.D.: GAZ23009

QA/QC Batch 156925, QC Sample No: AZ22974 (AZ23009, AZ23010, AZ23011, AZ23012, AZ23013, AZ23014, AZ23015, AZ23016, AZ23017, AZ23018, AZ23019, AZ23020)

### ICP Metals - Soil

| Parameter | Blank | Dup RPD | LCS % | LCSD % | LCS RPD | MS Rec % | MS Dup Rec % | RPD | |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | BDL | NC | 83.3 | 90.7 | 8.5 | 87.6 | 92.4 | 5.3 | |
| Barium | BDL | 37.1 | 83.7 | 86.9 | 3.8 | 80.7 | 87.2 | 7.7 | |
| Cadmium | BDL | NC | 85.4 | 94.7 | 10.3 | 89.8 | 93.7 | 4.3 | |
| Chromium | BDL | 53.8 | 94.2 | 93.8 | 0.4 | 85.4 | 91.0 | 6.3 | |
| Lead | BDL | 99.1 | 94.4 | 91.0 | 3.7 | 64.9 | 67.6 | 4.1 | 3 |
| Selenium | BDL | NC | 81.8 | 90.4 | 10.0 | 84.7 | 89.0 | 5.0 | |
| Silver | BDL | NC | 81.6 | 87.4 | 6.9 | 91.1 | 94.7 | 3.9 | |

Comment:

Some compounds had spike recoveries outside of 75-125%. A matrix bias is suspected because the LCS and LCSD were within control. No further action was required.

QA/QC Batch 156956, QC Sample No: AZ23047 (AZ23009, AZ23010, AZ23011, AZ23012, AZ23013, AZ23014, AZ23015, AZ23016, AZ23017, AZ23018, AZ23019, AZ23020)

| Parameter | Blank | Dup RPD | LCS % | LCSD % | LCS RPD | MS Rec % | MS Dup Rec % | RPD |
|---|---|---|---|---|---|---|---|---|
| Mercury | BDL | NC | 93.4 | 93.6 | 0.2 | 102 | 96.2 | 5.9 |

3 = This parameter is outside laboratory ms/msd specified limits.

# QA/QC Report

July 19, 2010

## QA/QC Data

SDG I.D.: GAZ23009

| Parameter | Blank | LCS % | LCSD % | LCS RPD | MS Rec % | MS Dup Rec % | RPD |
|---|---|---|---|---|---|---|---|
| QA/QC Batch 156844, QC Sample No: AZ22974 (AZ23009, AZ23010, AZ23011, AZ23012, AZ23013, AZ23014, AZ23015, AZ23016, AZ23017, AZ23018, AZ23019, AZ23020) | | | | | | | |
| **Polychlorinated Biphenyls** | | | | | | | |
| PCB-1016 | ND | 104 | 108 | 3.8 | 122 | 117 | 4.2 |
| PCB-1221 | ND | | | | | | |
| PCB-1232 | ND | | | | | | |
| PCB-1242 | ND | | | | | | |
| PCB-1248 | ND | | | | | | |
| PCB-1254 | ND | | | | | | |
| PCB-1260 | ND | 107 | 105 | 1.9 | 128 | 121 | 5.6 |
| PCB-1262 | ND | | | | | | |
| PCB-1268 | ND | | | | | | |
| % DCBP (Surrogate Rec) | 101 | 100 | 105 | 4.9 | 108 | 107 | 0.9 |
| % TCMX (Surrogate Rec) | 98 | 91 | 96 | 5.3 | 98 | 97 | 1.0 |
| QA/QC Batch 156845, QC Sample No: AZ22974 (AZ23009, AZ23010, AZ23011, AZ23012, AZ23013, AZ23014, AZ23015, AZ23016, AZ23017, AZ23018, AZ23019, AZ23020) | | | | | | | |
| **Semivolatiles** | | | | | | | |
| 1,2-Dichlorobenzene | ND | 44 | 57 | 25.7 | 65 | 64 | 1.6 |
| 1,3-Dichlorobenzene | ND | 44 | 57 | 25.7 | 64 | 63 | 1.6 |
| 1,4-Dichlorobenzene | ND | 46 | 60 | 26.4 | 68 | 66 | 3.0 |
| 2,4-Dinitrotoluene | ND | 52 | 73 | 33.6 | 102 | 103 | 1.0 |
| 2,6-Dinitrotoluene | ND | 48 | 63 | 27.0 | 77 | 79 | 2.6 |
| 2-Chloronaphthalene | ND | 48 | 64 | 28.6 | 74 | 74 | 0.0 |
| 2-Methylnaphthalene | ND | 45 | 59 | 26.9 | 71 | 71 | 0.0 |
| 2-Nitroaniline | ND | 50 | 77 | 42.5 | 81 | 88 | 8.3 |
| 3,3'-Dichlorobenzidine | ND | N/A | N/A | NC | N/A | N/A | NC |
| 3-Nitroaniline | ND | 94 | 124 | 27.5 | NC | NC | NC |
| 4-Bromophenyl phenyl ether | ND | 51 | 65 | 24.1 | 73 | 77 | 5.3 |
| 4-Chloroaniline | ND | 47 | 57 | 19.2 | 11 | 8.3 | 28.0 [3] |
| 4-Chlorophenyl phenyl ether | ND | 53 | 70 | 27.6 | 89 | 92 | 3.3 |
| 4-Nitroaniline | ND | 50 | 63 | 23.0 | 81 | 83 | 2.4 |
| Acenaphthene | ND | 45 | 59 | 26.9 | 70 | 72 | 2.8 |
| Acenaphthylene | ND | 48 | 63 | 27.0 | 75 | 75 | 0.0 |
| Anthracene | ND | 53 | 72 | 30.4 | 83 | 85 | 2.4 |
| Benz(a)anthracene | ND | 54 | 72 | 28.6 | 87 | 90 | 3.4 |
| Benzidine | ND | N/A | N/A | NC | N/A | N/A | NC |
| Benzo(a)pyrene | ND | 52 | 68 | 26.7 | 81 | 84 | 3.6 |
| Benzo(b)fluoranthene | ND | 52 | 68 | 26.7 | 78 | 81 | 3.8 |
| Benzo(ghi)perylene | ND | 49 | 64 | 26.5 | 91 | 99 | 8.4 |
| Benzo(k)fluoranthene | ND | 49 | 64 | 26.5 | 72 | 73 | 1.4 |
| Benzoic acid | ND | N/A | N/A | NC | N/A | N/A | NC |
| Benzyl butyl phthalate | ND | 48 | 70 | 37.3 | 72 | 76 | 5.4 |
| Bis(2-chloroethoxy)methane | ND | 42 | 55 | 26.8 | 63 | 63 | 0.0 |

# QA/QC Data

SDG I.D.: GAZ23009

| Parameter | Blank | LCS % | LCSD % | LCS RPD | MS Rec % | MS Dup Rec % | RPD | |
|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethyl)ether | ND | 40 | 52 | 26.1 | 58 | 58 | 0.0 | |
| Bis(2-chloroisopropyl)ether | ND | 31 | 41 | 27.8 | 43 | 44 | 2.3 | 2 |
| Bis(2-ethylhexyl)phthalate | ND | 60 | 82 | 31.0 | 95 | 99 | 4.1 | |
| Chrysene | ND | 45 | 60 | 28.6 | 70 | 74 | 5.6 | |
| Dibenz(a,h)anthracene | ND | 51 | 68 | 28.6 | 89 | 102 | 13.6 | |
| Dibenzofuran | ND | 49 | 65 | 28.1 | 82 | 84 | 2.4 | |
| Diethyl phthalate | ND | 49 | 65 | 28.1 | 82 | 82 | 0.0 | |
| Dimethylphthalate | ND | 50 | 66 | 27.6 | 78 | 78 | 0.0 | |
| Di-n-butylphthalate | ND | 46 | 73 | 45.4 | 59 | 60 | 1.7 | |
| Di-n-octylphthalate | ND | 44 | 59 | 29.1 | 76 | 81 | 6.4 | |
| Fluoranthene | ND | 46 | 72 | 44.1 | 54 | 54 | 0.0 | |
| Fluorene | ND | 52 | 69 | 28.1 | 90 | 93 | 3.3 | |
| Hexachlorobenzene | ND | 54 | 68 | 23.0 | 75 | 79 | 5.2 | |
| Hexachlorobutadiene | ND | 47 | 63 | 29.1 | 76 | 74 | 2.7 | |
| Hexachlorocyclopentadiene | ND | 24 | 36 | 40.0 | 24 | 21 | 13.3 | |
| Hexachloroethane | ND | 45 | 58 | 25.2 | 65 | 64 | 1.6 | |
| Indeno(1,2,3-cd)pyrene | ND | 51 | 67 | 27.1 | 91 | 103 | 12.4 | |
| Isophorone | ND | 43 | 55 | 24.5 | 63 | 64 | 1.6 | |
| Naphthalene | ND | 45 | 59 | 26.9 | 71 | 71 | 0.0 | |
| Nitrobenzene | ND | 43 | 55 | 24.5 | 63 | 64 | 1.6 | |
| N-Nitrosodimethylamine | ND | 31 | 41 | 27.8 | 44 | 41 | 7.1 | 2 |
| N-Nitrosodi-n-propylamine | ND | 45 | 59 | 26.9 | 67 | 69 | 2.9 | |
| N-Nitrosodiphenylamine | ND | 57 | 74 | 26.0 | 102 | 104 | 1.9 | |
| Phenanthrene | ND | 47 | 63 | 29.1 | 78 | 80 | 2.5 | |
| Pyrene | ND | 47 | 73 | 43.3 | 50 | 49 | 2.0 | |
| % 2-Fluorobiphenyl | 69 | 52 | 63 | 19.1 | 75 | 73 | 2.7 | |
| % Nitrobenzene-d5 | 60 | 42 | 49 | 15.4 | 56 | 56 | 0.0 | |
| % Terphenyl-d14 | 74 | 44 | 61 | 32.4 | 37 | 37 | 0.0 | 3 |

QA/QC Batch 156918, QC Sample No: AZ23403 (AZ23012, AZ23013, AZ23014, AZ23015, AZ23016, AZ23017, AZ23018, AZ23019, AZ23020)

## Pesticides

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4,4' -DDD | ND | 113 | 105 | 7.3 | 98 | 103 | 5.0 |
| 4,4' -DDE | ND | 91 | 91 | 0.0 | 90 | 90 | 0.0 |
| 4,4' -DDT | ND | 91 | 91 | 0.0 | 93 | 91 | 2.2 |
| a-BHC | ND | 95 | 98 | 3.1 | 95 | 96 | 1.0 |
| a-Chlordane | ND | 90 | 90 | 0.0 | 88 | 87 | 1.1 |
| Alachlor | ND | N/A | N/A | NC | N/A | N/A | NC |
| Aldrin | ND | 90 | 92 | 2.2 | 91 | 90 | 1.1 |
| b-BHC | ND | 94 | 102 | 8.2 | 97 | 97 | 0.0 |
| Chlordane | ND | N/A | N/A | NC | N/A | N/A | NC |
| d-BHC | ND | 94 | 102 | 8.2 | 100 | 99 | 1.0 |
| Dieldrin | ND | 91 | 92 | 1.1 | 91 | 91 | 0.0 |
| Endosulfan I | ND | 36 | 89 | 84.8 | 90 | 88 | 2.2 |
| Endosulfan II | ND | N/A | 91 | NC | 97 | 92 | 5.3 |
| Endosulfan sulfate | ND | 66 | 92 | 32.9 | 91 | 91 | 0.0 |
| Endrin | ND | 51 | 88 | 53.2 | 90 | 88 | 2.2 |
| Endrin aldehyde | ND | 37 | 118 | 104.5 | 123 | 122 | 0.8 |
| Endrin ketone | ND | 85 | 98 | 14.2 | 97 | 96 | 1.0 |
| g-BHC | ND | 97 | 99 | 2.0 | 97 | 97 | 0.0 |
| g-Chlordane | ND | 90 | 90 | 0.0 | 99 | 98 | 1.0 |
| Heptachlor | ND | 68 | 96 | 34.1 | 95 | 95 | 0.0 |
| Heptachlor epoxide | ND | 93 | 94 | 1.1 | 93 | 92 | 1.1 |

# QA/QC Data

SDG I.D.: GAZ23009

| Parameter | Blank | LCS % | LCSD % | LCS RPD | MS Rec % | MS Dup Rec % | RPD |
|---|---|---|---|---|---|---|---|
| Methoxychlor | ND | 90 | 94 | 4.3 | 97 | 97 | 0.0 |
| Toxaphene | ND | N/A | N/A | NC | N/A | N/A | NC |
| % DCBP | 85 | 93 | 90 | 3.3 | 88 | 89 | 1.1 |
| % TCMX | 76 | 82 | 82 | 0.0 | 79 | 80 | 1.3 |

2 = This parameter is outside laboratory lcs/lcsd specified limits.
3 = This parameter is outside laboratory ms/msd specified limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria

Phyllis Shiller

Phyllis Shiller, Laboratory Director
July 19, 2010

PHOENIX

**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045**
**Tel. (860) 645-1102 Fax (860) 645-0823**

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

# NY Temperature Narration

**July 19, 2010**

**SDG I.D.: GAZ23009**

---

The samples in this delivery group were received at 4C.
(Note acceptance criteria is above freezing up to 6C)

**PHOENIX**
*Environmental Laboratories, Inc.*

# CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: service@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-8726**

Temp 4 Pg of

**Data Delivery:**
☐ Fax #:
☐ Email:

Customer: Jade Environmental
Address:

Project:
Report to: Dave Pelletier
Invoice to:

Project P.O:
Phone #:
Fax #:

**Client Sample - Information - Identification**

Sampler's Signature ____ Date

**Matrix Code:**
**DW**=drinking water **WW**=wastewater **S**=soil/solid **O**=other
**GW**=groundwater **SL**=sludge **A**=air

Analysis Request

| Phoenix Sample # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | RCRA 8 | 8270 BN | Pest | PCB | | | | | | | | Soil VOA [ ] Methanol [ ] S. Bisulfate [ ] H20 | GL Soil container ( ) oz | GL Soil container ( ) oz | 40 ml VOA Vial [ ] As is [ ] HCl | GL Amber 1000ml [ ] As is [ ] H2SO4 | PL As is [ ] 250ml [ ] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23009 | SB1 2-4' | S | | | X | X | X | X | | | | | | | | | | | | | | | | | |
| 23010 | SB1 10-12' | S | | | ↓ | ↓ | ↓ | ↓ | | | | | | | | | | | | | | | | | |
| 23011 | SB2 2-4' | S | | | | | | | | | | | | | | | | | | | | | | | |
| 23012 | SB2 10-12' | S | | | | | | | | | | | | | | | | | | | | | | | |
| 23013 | SB3 2-3' | S | | | | | | | | | | | | | | | | | | | | | | | |
| 23014 | SB3 10-12' | S | | | | | | | | | | | | | | | | | | | | | | | |
| 23015 | SB4 2-4' | S | | | | | | | | | | | | | | | | | | | | | | | |
| 23016 | SB4 10-12' | S | | | | | | | | | | | | | | | | | | | | | | | |
| 23017 | SB5 2-4' | S | | | | | | | | | | | | | | | | | | | | | | | |
| 23018 | SB5 10-11' | S | | | | | | | | | | | | | | | | | | | | | | | |
| 23019 | SB6 2-4' | S | | | | | | | | | | | | | | | | | | | | | | | |
| 23020 | SB6 8-10' | S | | | ✓ | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| | Lori Bryda | 7-13-10 | 10:30 |
| | | | |
| | | | |

Comments, Special Requirements or Regulations:
Samples were Rcvd w/o C.O.C. Run for analysis listed Per Dave P. LB

**Turnaround:**
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☐ Standard
☐ Other

*** SURCHARGE APPLIES**

**CT/RI**
☐ RCP Cert.
☐ GW Protect.
☐ GA Mobility
☐ GB Mobility
☐ SW Protect.
☐ Res. Vol.
☐ Ind. Vol.
☐ Res. Criteria
☐ Other

**MA**
☐ MCP Cert.
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

**State where samples were collected:** ____

**Data Format**
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ Other ____

**Data Package**
☐ ASP-A
☐ NJ Reduced Deliv. *
☐ NJ Hazsite EDD
☐ Phoenix Std Report
☐ Other

**PHOENIX**
*Environmental Laboratories, Inc.*

# NY/NJ CHAIN OF CUSTODY RE

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-8726**

Temp Pg of

**Data Delivery:**
☐ Fax #:
☐ Email: dpelletierpe@alum.rpi.edu

Customer: Jade Environmental, Inc.
Address: 59 Circle Dr
Hopewell Junction, NY 12533

Project: Clinton Terrace Part 375
Report to: Dave Pelletier, P.E.
Invoice to: Same

Project P.O:
Phone #: 914 882-6024
Fax #:

**Client Sample - Information - Identification**
Sampler's Signature
Date: 7/9/10 ~~7-12-2010~~

**Matrix Code:**
DW=drinking water WW=wastewater S=soil/solid O=oil
GW=groundwater SL=sludge A=air X=other

Analysis Request

| Phoenix Sample # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | Pesticides + | PCB's + | B/N SVOCs + | RCRA Metals + | + | + | + | + | + | + | + | + | Soil VOA [ ] Methanol [ ] S. Bisulfate [ ] H2O | GL Soil container ( )oz 8# TOTAL | GL Soil container ( )oz | 40 ml VOA Vial [ ] As is [ ] HCl | GL Amber 1000ml [ ] As is [ ] H2SO4 | PL As is [ ] 250ml [ ] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23009 | 7-9-10-SB-1 (2-4') ✓ | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |
| 23010 | 7-9-10-SB-1 (10-12') ✓ | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |
| 23011 | 7-9-10-SB-2 (2-4') ✓ | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |
| 23012 | 7-9-10-SB-2 (10-12') ✓ | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |
| 23013 | 7-9-10-SB-3 (2-4') ✓ | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |
| 23014 | 7-9-10-SB-3 (10-12') ✓ | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |
| 23015 | 7-9-10-SB-4 (2-4') ✓ | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |
| 23016 | 7-9-10-SB-4 (10-12') ✓ | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |
| 23017 | 7-9-10-SB-5 (2-4') ✓ | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |
| * 23018 | 7-9-10-SB-5 (8-10') * | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |
| 23019 | 7-9-10-SB-6 (2-4') ✓ | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |
| * 23020 | 7-9-10-SB-6 (10-12') * | S | 9-Jul-10 | | X | X | X | X | | | | | | | | | | ✓ | | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| Dave Pelletier | | 7/12/10 | Noon |
| | Lori Bryda | 7-13-10 | 10:30 |

**Turnaround:**
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other

* SURCHARGE APPLIES

**NJ**
☐ Res. Criteria
☐ Non-Res. Criteria
☐ Impact to GW Soil Cleanup Criteria
☐ GW Criteria

**NY**
☐ TAGM 4046 GW
☐ TAGM 4046 SOIL
☐ NY375 Unrestricted Soil
☐ NY375 Residential Soil
☐ NY375 Restricted Non-Residential Soil

**Data Format**
☐ Phoenix Std Report
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ NJ Hazsite EDD
☐ NY EZ EDD (ASP)
☐ Other

**Data Package**
☐ NJ Reduced Deliv. *
☐ NY Enhanced (ASP B) *
☐ Other

**State where samples were collected:** NY

Comments, Special Requirements or Regulations:
* Sample labeled SB5-10-11'
** " " SB6-8-10'
Notified Dave Pelletier LB

**PHOENIX**
*Environmental Laboratories, Inc.*

# CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: service@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-8726**

Temp 4 Pg of

**Data Delivery:**
☐ Fax #:
☐ Email:

~~Customer~~: Jade Environmental
Address:

Project:
Report to: Dave Pelletier
Invoice to:

Project P.O:
Phone #:
Fax #:

**Client Sample - Information - Identification**

Sampler's Signature Date

**Matrix Code:**
**DW**=drinking water **WW**=wastewater **S**=soil/solid **O**=other
**GW**=groundwater **SL**=sludge **A**=air

Analysis Request

| Phoenix Sample # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | RCRA 8 | 8270 BN | Pest | PCB | Soil VOA [ ] Methanol [ ] S. Bisulfate [ ] H20 | GL Soil container ( ) oz | GL Soil container ( ) oz | 40 ml VOA Vial [ ] As is [ ] HCl | GL Amber 1000ml [ ] As is [ ] H2SO4 | PL As is [ ] 250ml [ ] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23009 | SB1 2-4' | S | | | X | X | X | X | | | | | | | | | | |
| 23010 | SB1 10-12' | S | | | | | | | | | | | | | | | | |
| 23011 | SB2 2-4' | S | | | | | | | | | | | | | | | | |
| 23012 | SB2 10-12' | S | | | | | | | | | | | | | | | | |
| 23013 | SB3 2-4' | S | | | | | | | | | | | | | | | | |
| 23014 | SB3 10-12' | S | | | | | | | | | | | | | | | | |
| 23015 | SB4 2-4' | S | | | | | | | | | | | | | | | | |
| 23016 | SB4 10-12' | S | | | | | | | | | | | | | | | | |
| 23017 | SB5 2-4' | S | | | | | | | | | | | | | | | | |
| * 23018 | SB5 10-11' | S | | | | | | | | | | | | | | | | |
| 23019 | SB6 2-4' | S | | | | | | | | | | | | | | | | |
| * 23020 | SB6 8-10' | S | | | ✓ | ✓ | ✓ | ✓ | | | | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| | Lori Bryda | 7-13-10 | 10:30 |
| | | | |
| | | | |

Comments, Special Requirements or Regulations:
Samples were Rcvd w/o C.O.C. Run for analysis listed per Dave P. LB

**Turnaround:**
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☐ Standard
☐ Other

*** SURCHARGE APPLIES**

**CT/RI**
☐ RCP Cert.
☐ GW Protect.
☐ GA Mobility
☐ GB Mobility
☐ SW Protect.
☐ Res. Vol.
☐ Ind. Vol.
☐ Res. Criteria
☐ Other

**MA**
☐ MCP Cert.
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

**State where samples were collected:**

**Data Format**
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

**Data Package**
☐ ASP-A
☐ NJ Reduced Deliv. *
☐ NJ Hazsite EDD
☐ Phoenix Std Report
☐ Other

PHOENIX
Environmental Laboratories, Inc.

Friday, July 23, 2010

Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

Project ID: CLINTON TERRACE BEDROCK WALL
Sample ID#s: AZ26690 - AZ26691

This laboratory is in compliance with the QA/QC procedures outlined in EPA 600/4-79-019, Handbook for Analytical Quality in Water and Waste Water, March 1979, SW846 QA/QC and NELAC requirements of procedures used.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

# Analysis Report

July 23, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 07/21/10 | 9:00 |
| Location Code: | JADEENV | Received by: | LB | 07/22/10 | 16:47 |
| Rush Request: | RUSH24 | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ26690
Phoenix ID: AZ26690

Project ID: CLINTON TERRACE BEDROCK WALL

Client ID: BRW 1

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,1-Dichloroethene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,1-Dichloropropene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,2,3-Trichloropropane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,3-Dichloropropane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 2,2-Dichloropropane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 2-Chlorotoluene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 2-Hexanone | ND | 5.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 2-Isopropyltoluene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 4-Chlorotoluene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| 4-Methyl-2-pentanone | ND | 5.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Acetone | ND | 25 | ug/L | 07/22/10 | | R/J | SW8260 |

Project ID: CLINTON TERRACE BEDROCK WALL

Client ID: BRW 1

Phoenix I.D.: AZ26690

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Acrylonitrile | ND | 5.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Benzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Bromobenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Bromochloromethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Bromodichloromethane | ND | 0.50 | ug/L | 07/22/10 | | R/J | SW8260 |
| Bromoform | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Bromomethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Carbon Disulfide | ND | 5.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Carbon tetrachloride | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Chlorobenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Chloroethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Chloroform | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Chloromethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| cis-1,2-Dichloroethene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| cis-1,3-Dichloropropene | ND | 0.50 | ug/L | 07/22/10 | | R/J | SW8260 |
| Dibromochloromethane | ND | 0.50 | ug/L | 07/22/10 | | R/J | SW8260 |
| Dibromoethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Dibromomethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Dichlorodifluoromethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Ethylbenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Hexachlorobutadiene | ND | 0.40 | ug/L | 07/22/10 | | R/J | SW8260 |
| Isopropylbenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| m&p-Xylene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Methyl ethyl ketone | ND | 5.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Methyl t-butyl ether (MTBE) | 11 | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Methylene chloride | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Naphthalene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| n-Butylbenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| n-Propylbenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| o-Xylene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| p-Isopropyltoluene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| sec-Butylbenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Styrene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| tert-Butylbenzene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Tetrachloroethene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Tetrahydrofuran (THF) | ND | 5.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Toluene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Total Xylenes | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| trans-1,2-Dichloroethene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| trans-1,3-Dichloropropene | ND | 0.50 | ug/L | 07/22/10 | | R/J | SW8260 |
| trans-1,4-dichloro-2-butene | ND | 5.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Trichloroethene | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Trichlorofluoromethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Trichlorotrifluoroethane | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| Vinyl chloride | ND | 1.0 | ug/L | 07/22/10 | | R/J | SW8260 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 104 | | % | 07/22/10 | | R/J | SW8260 |
| % Bromofluorobenzene | 90 | | % | 07/22/10 | | R/J | SW8260 |
| % Dibromofluoromethane | 100 | | % | 07/22/10 | | R/J | SW8260 |
| % Toluene-d8 | 102 | | % | 07/22/10 | | R/J | SW8260 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 26, 2010**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

July 23, 2010

FOR: Attn: Mr. David Pelletier
Jade Environmental, Inc.
59 Circle Drive
Hopewell Junction, NY 12533

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | SOLID | Collected by: | | 07/21/10 | 9:00 |
| Location Code: | JADEENV | Received by: | LB | 07/22/10 | 16:47 |
| Rush Request: | RUSH24 | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GAZ26690
Phoenix ID: AZ26691

Project ID: CLINTON TERRACE BEDROCK WALL

Client ID: STOCKPILE COMP

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Percent Solid | 87 | | % | 07/22/10 | | h/ JL | E160.3 |
| **Volatiles** | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,1,1-Trichloroethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,1,2,2-Tetrachloroethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,1,2-Trichloroethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,1-Dichloroethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,1-Dichloroethene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,1-Dichloropropene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,2,3-Trichlorobenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,2,3-Trichloropropane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,2,4-Trichlorobenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,2,4-Trimethylbenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,2-Dibromo-3-chloropropane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,2-Dichlorobenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,2-Dichloroethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,2-Dichloropropane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,3,5-Trimethylbenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,3-Dichlorobenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,3-Dichloropropane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 1,4-Dichlorobenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 2,2-Dichloropropane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 2-Chlorotoluene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 2-Hexanone | ND | 29 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 2-Isopropyltoluene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 4-Chlorotoluene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| 4-Methyl-2-pentanone | ND | 29 | ug/Kg | 07/22/10 | | R/J | SW8260 |

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Acetone | ND | 29 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Acrylonitrile | ND | 11 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Benzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Bromobenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Bromochloromethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Bromodichloromethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Bromoform | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Bromomethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Carbon Disulfide | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Carbon tetrachloride | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Chlorobenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Chloroethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Chloroform | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Chloromethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| cis-1,2-Dichloroethene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| cis-1,3-Dichloropropene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Dibromochloromethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Dibromoethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Dibromomethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Dichlorodifluoromethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Ethylbenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Hexachlorobutadiene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Isopropylbenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| m&p-Xylene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Methyl Ethyl Ketone | ND | 29 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Methyl t-butyl ether (MTBE) | ND | 11 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Methylene chloride | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Naphthalene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| n-Butylbenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| n-Propylbenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| o-Xylene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| p-Isopropyltoluene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| sec-Butylbenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Styrene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| tert-Butylbenzene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Tetrachloroethene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Tetrahydrofuran (THF) | ND | 11 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Toluene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Total Xylenes | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| trans-1,2-Dichloroethene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| trans-1,3-Dichloropropene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| trans-1,4-dichloro-2-butene | ND | 11 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Trichloroethene | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Trichlorofluoromethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Trichlorotrifluoroethane | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| Vinyl chloride | ND | 5.7 | ug/Kg | 07/22/10 | | R/J | SW8260 |
| **QA/QC Surrogates** | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 100 | | % | 07/22/10 | | R/J | SW8260 |
| % Bromofluorobenzene | 91 | | % | 07/22/10 | | R/J | SW8260 |
| % Dibromofluoromethane | 108 | | % | 07/22/10 | | R/J | SW8260 |

Project ID: CLINTON TERRACE BEDROCK WALL
Client ID: STOCKPILE COMP

Phoenix I.D.: AZ26691

| Parameter | Result | RL | Units | Date | Time | By | Reference |
|---|---|---|---|---|---|---|---|
| % Toluene-d8 | 97 | | % | 07/22/10 | | R/J | SW8260 |

## Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected  BDL=Below Detection Level  RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller

**Phyllis Shiller, Laboratory Director**
**July 26, 2010**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# QA/QC Report

July 26, 2010

## QA/QC Data

SDG I.D.: GAZ26690

QA/QC Batch 157666, QC Sample No: AZ26062 (AZ26690)

### Volatiles

| Parameter | Blank | LCS % | LCSD % | LCS RPD | MS Rec % | MS Dup Rec % | RPD | |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 95 | 84 | 12.3 | 92 | 87 | 5.6 | |
| 1,1,1-Trichloroethane | ND | 97 | 81 | 18.0 | 76 | 62 | 20.3 | 3 |
| 1,1,2,2-Tetrachloroethane | ND | 95 | 90 | 5.4 | 93 | 95 | 2.1 | |
| 1,1,2-Trichloroethane | ND | 92 | 86 | 6.7 | 96 | 92 | 4.3 | |
| 1,1-Dichloroethane | ND | 98 | 82 | 17.8 | 79 | 67 | 16.4 | 3 |
| 1,1-Dichloroethene | ND | 89 | 71 | 22.5 | 78 | 63 | 21.3 | 3 |
| 1,1-Dichloropropene | ND | 97 | 79 | 20.5 | 90 | 81 | 10.5 | |
| 1,2,3-Trichlorobenzene | ND | 120 | 112 | 6.9 | 97 | 86 | 12.0 | |
| 1,2,3-Trichloropropane | ND | 94 | 90 | 4.3 | 94 | 96 | 2.1 | |
| 1,2,4-Trichlorobenzene | ND | 107 | 99 | 7.8 | 100 | 93 | 7.3 | |
| 1,2,4-Trimethylbenzene | ND | 104 | 91 | 13.3 | 98 | 93 | 5.2 | |
| 1,2-Dibromo-3-chloropropane | ND | 91 | 92 | 1.1 | 84 | 87 | 3.5 | |
| 1,2-Dichlorobenzene | ND | 97 | 87 | 10.9 | 94 | 92 | 2.2 | |
| 1,2-Dichloroethane | ND | 88 | 80 | 9.5 | 103 | 102 | 1.0 | |
| 1,2-Dichloropropane | ND | 96 | 86 | 11.0 | 95 | 88 | 7.7 | |
| 1,3,5-Trimethylbenzene | ND | 104 | 91 | 13.3 | 97 | 93 | 4.2 | |
| 1,3-Dichlorobenzene | ND | 99 | 89 | 10.6 | 95 | 92 | 3.2 | |
| 1,3-Dichloropropane | ND | 96 | 87 | 9.8 | 94 | 91 | 3.2 | |
| 1,4-Dichlorobenzene | ND | 97 | 87 | 10.9 | 94 | 91 | 3.2 | |
| 2,2-Dichloropropane | ND | 108 | 88 | 20.4 | 77 | 66 | 15.4 | |
| 2-Chlorotoluene | ND | 104 | 92 | 12.2 | 98 | 91 | 7.4 | |
| 2-Hexanone | ND | 89 | 84 | 5.8 | 88 | 89 | 1.1 | |
| 2-Isopropyltoluene | ND | 104 | 90 | 14.4 | 97 | 92 | 5.3 | |
| 4-Chlorotoluene | ND | 103 | 89 | 14.6 | 96 | 92 | 4.3 | |
| 4-Methyl-2-pentanone | ND | 89 | 87 | 2.3 | 95 | 92 | 3.2 | |
| Acetone | ND | 76 | 80 | 5.1 | 76 | 60 | 23.5 | |
| Acrylonitrile | ND | 90 | 90 | 0.0 | 79 | 70 | 12.1 | |
| Benzene | ND | 94 | 82 | 13.6 | 91 | 85 | 6.8 | |
| Bromobenzene | ND | 98 | 88 | 10.8 | 93 | 91 | 2.2 | |
| Bromochloromethane | ND | 93 | 83 | 11.4 | 77 | 67 | 13.9 | 3 |
| Bromodichloromethane | ND | 94 | 83 | 12.4 | 93 | 87 | 6.7 | |
| Bromoform | ND | 89 | 83 | 7.0 | 85 | 83 | 2.4 | |
| Bromomethane | ND | 100 | 87 | 13.9 | 65 | 59 | 9.7 | |
| Carbon Disulfide | ND | 97 | 79 | 20.5 | 62 | 50 | 21.4 | |
| Carbon tetrachloride | ND | 93 | 77 | 18.8 | 85 | 77 | 9.9 | |
| Chlorobenzene | ND | 99 | 86 | 14.1 | 93 | 89 | 4.4 | |
| Chloroethane | ND | 105 | 84 | 22.2 | 72 | 65 | 10.2 | |
| Chloroform | ND | 89 | 77 | 14.5 | 75 | 63 | 17.4 | 3 |
| Chloromethane | ND | 97 | 82 | 16.8 | 77 | 61 | 23.2 | 3 |
| cis-1,2-Dichloroethene | ND | 93 | 81 | 13.8 | 79 | 65 | 19.4 | 3 |
| cis-1,3-Dichloropropene | ND | 97 | 88 | 9.7 | 95 | 89 | 6.5 | |

# QA/QC Data

SDG I.D.: GAZ26690

| Parameter | Blank | LCS % | LCSD % | LCS RPD | MS Rec % | MS Dup Rec % | RPD | |
|---|---|---|---|---|---|---|---|---|
| Dibromochloromethane | ND | 91 | 83 | 9.2 | 87 | 86 | 1.2 | |
| Dibromoethane | ND | 93 | 88 | 5.5 | 95 | 91 | 4.3 | |
| Dibromomethane | ND | 92 | 84 | 9.1 | 92 | 89 | 3.3 | |
| Dichlorodifluoromethane | ND | 121 | 99 | 20.0 | 87 | 69 | 23.1 | |
| Ethylbenzene | ND | 105 | 87 | 18.8 | 97 | 90 | 7.5 | |
| Hexachlorobutadiene | ND | 104 | 89 | 15.5 | 94 | 89 | 5.5 | |
| Isopropylbenzene | ND | 100 | 86 | 15.1 | 98 | 94 | 4.2 | |
| m&p-Xylene | ND | 102 | 87 | 15.9 | 96 | 89 | 7.6 | |
| Methyl ethyl ketone | ND | 74 | 82 | 10.3 | 66 | 65 | 1.5 | |
| Methyl t-butyl ether (MTBE) | ND | 112 | 105 | 6.5 | 128 | 122 | 4.8 | |
| Methylene chloride | ND | 88 | 80 | 9.5 | 75 | 65 | 14.3 | 3 |
| Naphthalene | ND | 110 | 105 | 4.7 | 93 | 89 | 4.4 | |
| n-Butylbenzene | ND | 113 | 96 | 16.3 | 99 | 95 | 4.1 | |
| n-Propylbenzene | ND | 111 | 93 | 17.6 | 97 | 92 | 5.3 | |
| o-Xylene | ND | 104 | 88 | 16.7 | 96 | 92 | 4.3 | |
| p-Isopropyltoluene | ND | 110 | 93 | 16.7 | 99 | 95 | 4.1 | |
| sec-Butylbenzene | ND | 108 | 91 | 17.1 | 98 | 92 | 6.3 | |
| Styrene | ND | 102 | 88 | 14.7 | 97 | 92 | 5.3 | |
| tert-Butylbenzene | ND | 106 | 91 | 15.2 | 99 | 92 | 7.3 | |
| Tetrachloroethene | ND | 102 | 83 | 20.5 | 89 | 83 | 7.0 | |
| Tetrahydrofuran (THF) | ND | 78 | 79 | 1.3 | 70 | 60 | 15.4 | |
| Toluene | ND | 99 | 85 | 15.2 | 95 | 87 | 8.8 | |
| trans-1,2-Dichloroethene | ND | 95 | 78 | 19.7 | 77 | 63 | 20.0 | 3 |
| trans-1,3-Dichloropropene | ND | 96 | 89 | 7.6 | 93 | 91 | 2.2 | |
| trans-1,4-dichloro-2-butene | ND | 98 | 95 | 3.1 | 93 | 93 | 0.0 | |
| Trichloroethene | ND | 103 | 86 | 18.0 | 96 | 85 | 12.2 | |
| Trichlorofluoromethane | ND | 106 | 86 | 20.8 | 78 | 64 | 19.7 | |
| Trichlorotrifluoroethane | ND | 103 | 83 | 21.5 | 81 | 68 | 17.4 | |
| Vinyl chloride | ND | 103 | 84 | 20.3 | 78 | 63 | 21.3 | 3 |
| % 1,2-dichlorobenzene-d4 | 101 | 100 | 100 | 0.0 | 100 | 100 | 0.0 | |
| % Bromofluorobenzene | 92 | 100 | 98 | 2.0 | 99 | 101 | 2.0 | |
| % Dibromofluoromethane | 97 | 96 | 95 | 1.0 | 82 | 74 | 10.3 | |
| % Toluene-d8 | 101 | 99 | 102 | 3.0 | 101 | 102 | 1.0 | |

QA/QC Batch 157663, QC Sample No: AZ26654 (AZ26691)

## Volatiles

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 85 | 107 | 22.9 | 90 | 85 | 5.7 |
| 1,1,1-Trichloroethane | ND | 97 | 118 | 19.5 | 102 | 105 | 2.9 |
| 1,1,2,2-Tetrachloroethane | ND | 111 | 123 | 10.3 | 125 | 102 | 20.3 |
| 1,1,2-Trichloroethane | ND | 98 | 107 | 8.8 | 102 | 87 | 15.9 |
| 1,1-Dichloroethane | ND | 103 | 125 | 19.3 | 111 | 109 | 1.8 |
| 1,1-Dichloroethene | ND | 80 | 89 | 10.7 | 103 | 98 | 5.0 |
| 1,1-Dichloropropene | ND | 92 | 115 | 22.2 | 103 | 110 | 6.6 |
| 1,2,3-Trichlorobenzene | ND | 97 | 108 | 10.7 | 93 | 74 | 22.8 |
| 1,2,3-Trichloropropane | ND | 106 | 116 | 9.0 | 111 | 92 | 18.7 |
| 1,2,4-Trichlorobenzene | ND | 94 | 109 | 14.8 | 95 | 76 | 22.2 |
| 1,2,4-Trimethylbenzene | ND | 105 | 132 | 22.8 | 111 | 108 | 2.7 |
| 1,2-Dibromo-3-chloropropane | ND | 104 | 106 | 1.9 | 106 | 82 | 25.5 |
| 1,2-Dichlorobenzene | ND | 93 | 111 | 17.6 | 94 | 83 | 12.4 |
| 1,2-Dichloroethane | ND | 88 | 96 | 8.7 | 92 | 80 | 14.0 |
| 1,2-Dichloropropane | ND | 99 | 115 | 15.0 | 101 | 97 | 4.0 |
| 1,3,5-Trimethylbenzene | ND | 101 | 132 | 26.6 | 109 | 110 | 0.9 |
| 1,3-Dichlorobenzene | ND | 89 | 113 | 23.8 | 96 | 87 | 9.8 |

# QA/QC Data

SDG I.D.: GAZ26690

| Parameter | Blank | LCS % | LCSD % | LCS RPD | MS Rec % | MS Dup Rec % | RPD | |
|---|---|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | ND | 99 | 110 | 10.5 | 106 | 90 | 16.3 | |
| 1,4-Dichlorobenzene | ND | 88 | 108 | 20.4 | 95 | 84 | 12.3 | |
| 2,2-Dichloropropane | ND | 105 | 119 | 12.5 | 113 | 103 | 9.3 | |
| 2-Chlorotoluene | ND | 96 | 122 | 23.9 | 103 | 101 | 2.0 | |
| 2-Hexanone | ND | 108 | 101 | 6.7 | 76 | 52 | 37.5 | |
| 2-Isopropyltoluene | ND | 97 | 124 | 24.4 | 101 | 99 | 2.0 | |
| 4-Chlorotoluene | ND | 98 | 127 | 25.8 | 107 | 102 | 4.8 | |
| 4-Methyl-2-pentanone | ND | 105 | 97 | 7.9 | 96 | 70 | 31.3 | |
| Acetone | ND | 129 | 114 | 12.3 | 80 | 64 | 22.2 | |
| Acrylonitrile | ND | 116 | 113 | 2.6 | 126 | 89 | 34.4 | |
| Benzene | ND | 95 | 113 | 17.3 | 101 | 100 | 1.0 | |
| Bromobenzene | ND | 88 | 110 | 22.2 | 96 | 88 | 8.7 | |
| Bromochloromethane | ND | 108 | 126 | 15.4 | 116 | 103 | 11.9 | |
| Bromodichloromethane | ND | 98 | 115 | 16.0 | 106 | 95 | 10.9 | |
| Bromoform | ND | 91 | 100 | 9.4 | 96 | 77 | 22.0 | |
| Bromomethane | ND | 95 | 119 | 22.4 | 130 | 112 | 14.9 | |
| Carbon Disulfide | ND | 85 | 99 | 15.2 | 106 | 101 | 4.8 | |
| Carbon tetrachloride | ND | 92 | 110 | 17.8 | 99 | 99 | 0.0 | |
| Chlorobenzene | ND | 90 | 110 | 20.0 | 97 | 93 | 4.2 | |
| Chloroethane | ND | 94 | 113 | 18.4 | 101 | 105 | 3.9 | |
| Chloroform | ND | 111 | 132 | 17.3 | 119 | 113 | 5.2 | |
| Chloromethane | ND | 74 | 103 | 32.8 | 85 | 102 | 18.2 | |
| cis-1,2-Dichloroethene | ND | 103 | 122 | 16.9 | 113 | 107 | 5.5 | |
| cis-1,3-Dichloropropene | ND | 103 | 113 | 9.3 | 109 | 96 | 12.7 | |
| Dibromochloromethane | ND | 95 | 107 | 11.9 | 102 | 87 | 15.9 | |
| Dibromoethane | ND | 114 | 115 | 0.9 | 120 | 91 | 27.5 | |
| Dibromomethane | ND | 97 | 105 | 7.9 | 100 | 84 | 17.4 | |
| Dichlorodifluoromethane | ND | 84 | 104 | 21.3 | 83 | 86 | 3.6 | |
| Ethylbenzene | ND | 94 | 123 | 26.7 | 103 | 104 | 1.0 | |
| Hexachlorobutadiene | ND | 76 | 98 | 25.3 | 77 | 70 | 9.5 | |
| Isopropylbenzene | ND | 90 | 116 | 25.2 | 101 | 105 | 3.9 | |
| m&p-Xylene | ND | 95 | 122 | 24.9 | 104 | 106 | 1.9 | |
| Methyl ethyl ketone | ND | >150 | 121 | NC | 98 | 66 | 39.0 | |
| Methyl t-butyl ether (MTBE) | ND | 91 | 98 | 7.4 | 98 | 82 | 17.8 | |
| Methylene chloride | ND | 106 | 105 | 0.9 | 117 | 91 | 25.0 | |
| Naphthalene | ND | 128 | 128 | 0.0 | 125 | 87 | 35.8 | |
| n-Butylbenzene | ND | 95 | 122 | 24.9 | 100 | 96 | 4.1 | |
| n-Propylbenzene | ND | 95 | 125 | 27.3 | 102 | 105 | 2.9 | |
| o-Xylene | ND | 96 | 120 | 22.2 | 102 | 103 | 1.0 | |
| p-Isopropyltoluene | ND | 95 | 122 | 24.9 | 100 | 98 | 2.0 | |
| sec-Butylbenzene | ND | 102 | 133 | 26.4 | 108 | 112 | 3.6 | 2 |
| Styrene | ND | 101 | 122 | 18.8 | 106 | 101 | 4.8 | |
| tert-Butylbenzene | ND | 93 | 123 | 27.8 | 99 | 100 | 1.0 | |
| Tetrachloroethene | ND | 72 | 93 | 25.5 | 75 | 82 | 8.9 | |
| Tetrahydrofuran (THF) | ND | 119 | 104 | 13.5 | 122 | 91 | 29.1 | |
| Toluene | ND | 91 | 108 | 17.1 | 97 | 97 | 0.0 | |
| trans-1,2-Dichloroethene | ND | 107 | 87 | 20.6 | 128 | 83 | 42.7 | |
| trans-1,3-Dichloropropene | ND | 115 | 112 | 2.6 | 121 | 94 | 25.1 | |
| trans-1,4-dichloro-2-butene | ND | >150 | 137 | NC | >150 | 103 | NC | |
| Trichloroethene | ND | 95 | 116 | 19.9 | 93 | 96 | 3.2 | |
| Trichlorofluoromethane | ND | 94 | 113 | 18.4 | 102 | 104 | 1.9 | |
| Trichlorotrifluoroethane | ND | 81 | 90 | 10.5 | 93 | 87 | 6.7 | |
| Vinyl chloride | ND | 79 | 100 | 23.5 | 93 | 101 | 8.2 | |

# QA/QC Data

SDG I.D.: GAZ26690

| Parameter | Blank | LCS % | LCSD % | LCS RPD | MS Rec % | MS Dup Rec % | RPD |
|---|---|---|---|---|---|---|---|
| % 1,2-dichlorobenzene-d4 | 99 | 100 | 102 | 2.0 | 103 | 103 | 0.0 |
| % Bromofluorobenzene | 91 | 94 | 97 | 3.1 | 96 | 98 | 2.1 |
| % Dibromofluoromethane | 95 | 109 | 100 | 8.6 | 110 | 105 | 4.7 |
| % Toluene-d8 | 95 | 100 | 99 | 1.0 | 98 | 99 | 1.0 |
| QA/QC Batch 157664, QC Sample No: AZ26654 (AZ26691) | | | | | | | |
| Volatiles | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 85 | 107 | 22.9 | 90 | 85 | 5.7 |
| 1,1,1-Trichloroethane | ND | 97 | 118 | 19.5 | 102 | 105 | 2.9 |
| 1,1,2,2-Tetrachloroethane | ND | 111 | 123 | 10.3 | 125 | 102 | 20.3 |
| 1,1,2-Trichloroethane | ND | 98 | 107 | 8.8 | 102 | 87 | 15.9 |
| 1,1-Dichloroethane | ND | 103 | 125 | 19.3 | 111 | 109 | 1.8 |
| 1,1-Dichloroethene | ND | 80 | 89 | 10.7 | 103 | 98 | 5.0 |
| 1,1-Dichloropropene | ND | 92 | 115 | 22.2 | 103 | 110 | 6.6 |
| 1,2,3-Trichlorobenzene | ND | 97 | 108 | 10.7 | 93 | 74 | 22.8 |
| 1,2,3-Trichloropropane | ND | 106 | 116 | 9.0 | 111 | 92 | 18.7 |
| 1,2,4-Trichlorobenzene | ND | 94 | 109 | 14.8 | 95 | 76 | 22.2 |
| 1,2,4-Trimethylbenzene | ND | 105 | 132 | 22.8 | 111 | 108 | 2.7 |
| 1,2-Dibromo-3-chloropropane | ND | 104 | 106 | 1.9 | 106 | 82 | 25.5 |
| 1,2-Dichlorobenzene | ND | 93 | 111 | 17.6 | 94 | 83 | 12.4 |
| 1,2-Dichloroethane | ND | 88 | 96 | 8.7 | 92 | 80 | 14.0 |
| 1,2-Dichloropropane | ND | 99 | 115 | 15.0 | 101 | 97 | 4.0 |
| 1,3,5-Trimethylbenzene | ND | 101 | 132 | 26.6 | 109 | 110 | 0.9 |
| 1,3-Dichlorobenzene | ND | 89 | 113 | 23.8 | 96 | 87 | 9.8 |
| 1,3-Dichloropropane | ND | 99 | 110 | 10.5 | 106 | 90 | 16.3 |
| 1,4-Dichlorobenzene | ND | 88 | 108 | 20.4 | 95 | 84 | 12.3 |
| 2,2-Dichloropropane | ND | 105 | 119 | 12.5 | 113 | 103 | 9.3 |
| 2-Chlorotoluene | ND | 96 | 122 | 23.9 | 103 | 101 | 2.0 |
| 2-Hexanone | ND | 108 | 101 | 6.7 | 76 | 52 | 37.5 |
| 2-Isopropyltoluene | ND | 97 | 124 | 24.4 | 101 | 99 | 2.0 |
| 4-Chlorotoluene | ND | 98 | 127 | 25.8 | 107 | 102 | 4.8 |
| 4-Methyl-2-pentanone | ND | 105 | 97 | 7.9 | 96 | 70 | 31.3 |
| Acetone | ND | 129 | 114 | 12.3 | 80 | 64 | 22.2 |
| Acrylonitrile | ND | 116 | 113 | 2.6 | 126 | 89 | 34.4 |
| Benzene | ND | 95 | 113 | 17.3 | 101 | 100 | 1.0 |
| Bromobenzene | ND | 88 | 110 | 22.2 | 96 | 88 | 8.7 |
| Bromochloromethane | ND | 108 | 126 | 15.4 | 116 | 103 | 11.9 |
| Bromodichloromethane | ND | 98 | 115 | 16.0 | 106 | 95 | 10.9 |
| Bromoform | ND | 91 | 100 | 9.4 | 96 | 77 | 22.0 |
| Bromomethane | ND | 95 | 119 | 22.4 | 130 | 112 | 14.9 |
| Carbon Disulfide | ND | 85 | 99 | 15.2 | 106 | 101 | 4.8 |
| Carbon tetrachloride | ND | 92 | 110 | 17.8 | 99 | 99 | 0.0 |
| Chlorobenzene | ND | 90 | 110 | 20.0 | 97 | 93 | 4.2 |
| Chloroethane | ND | 94 | 113 | 18.4 | 101 | 105 | 3.9 |
| Chloroform | ND | 111 | 132 | 17.3 | 119 | 113 | 5.2 |
| Chloromethane | ND | 74 | 103 | 32.8 | 85 | 102 | 18.2 |
| cis-1,2-Dichloroethene | ND | 103 | 122 | 16.9 | 113 | 107 | 5.5 |
| cis-1,3-Dichloropropene | ND | 103 | 113 | 9.3 | 109 | 96 | 12.7 |
| Dibromochloromethane | ND | 95 | 107 | 11.9 | 102 | 87 | 15.9 |
| Dibromoethane | ND | 114 | 115 | 0.9 | 120 | 91 | 27.5 |
| Dibromomethane | ND | 97 | 105 | 7.9 | 100 | 84 | 17.4 |
| Dichlorodifluoromethane | ND | 84 | 104 | 21.3 | 83 | 86 | 3.6 |
| Ethylbenzene | ND | 94 | 123 | 26.7 | 103 | 104 | 1.0 |

# QA/QC Data

SDG I.D.: GAZ26690

| Parameter | Blank | LCS % | LCSD % | LCS RPD | MS Rec % | MS Dup Rec % | RPD | |
|---|---|---|---|---|---|---|---|---|
| Hexachlorobutadiene | ND | 76 | 98 | 25.3 | 77 | 70 | 9.5 | |
| Isopropylbenzene | ND | 90 | 116 | 25.2 | 101 | 105 | 3.9 | |
| m&p-Xylene | ND | 95 | 122 | 24.9 | 104 | 106 | 1.9 | |
| Methyl ethyl ketone | ND | >150 | 121 | NC | 98 | 66 | 39.0 | |
| Methyl t-butyl ether (MTBE) | ND | 91 | 98 | 7.4 | 98 | 82 | 17.8 | |
| Methylene chloride | ND | 106 | 105 | 0.9 | 117 | 91 | 25.0 | |
| Naphthalene | ND | 128 | 128 | 0.0 | 125 | 87 | 35.8 | |
| n-Butylbenzene | ND | 95 | 122 | 24.9 | 100 | 96 | 4.1 | |
| n-Propylbenzene | ND | 95 | 125 | 27.3 | 102 | 105 | 2.9 | |
| o-Xylene | ND | 96 | 120 | 22.2 | 102 | 103 | 1.0 | |
| p-Isopropyltoluene | ND | 95 | 122 | 24.9 | 100 | 98 | 2.0 | |
| sec-Butylbenzene | ND | 102 | 133 | 26.4 | 108 | 112 | 3.6 | 2 |
| Styrene | ND | 101 | 122 | 18.8 | 106 | 101 | 4.8 | |
| tert-Butylbenzene | ND | 93 | 123 | 27.8 | 99 | 100 | 1.0 | |
| Tetrachloroethene | ND | 72 | 93 | 25.5 | 75 | 82 | 8.9 | |
| Tetrahydrofuran (THF) | ND | 119 | 104 | 13.5 | 122 | 91 | 29.1 | |
| Toluene | ND | 91 | 108 | 17.1 | 97 | 97 | 0.0 | |
| trans-1,2-Dichloroethene | ND | 107 | 87 | 20.6 | 128 | 83 | 42.7 | |
| trans-1,3-Dichloropropene | ND | 115 | 112 | 2.6 | 121 | 94 | 25.1 | |
| trans-1,4-dichloro-2-butene | ND | >150 | 137 | NC | >150 | 103 | NC | |
| Trichloroethene | ND | 95 | 116 | 19.9 | 93 | 96 | 3.2 | |
| Trichlorofluoromethane | ND | 94 | 113 | 18.4 | 102 | 104 | 1.9 | |
| Trichlorotrifluoroethane | ND | 81 | 90 | 10.5 | 93 | 87 | 6.7 | |
| Vinyl chloride | ND | 79 | 100 | 23.5 | 93 | 101 | 8.2 | |
| % 1,2-dichlorobenzene-d4 | 99 | 100 | 102 | 2.0 | 103 | 103 | 0.0 | |
| % Bromofluorobenzene | 91 | 94 | 97 | 3.1 | 96 | 98 | 2.1 | |
| % Dibromofluoromethane | 95 | 109 | 100 | 8.6 | 110 | 105 | 4.7 | |
| % Toluene-d8 | 95 | 100 | 99 | 1.0 | 98 | 99 | 1.0 | |

2 = This parameter is outside laboratory lcs/lcsd specified limits.
3 = This parameter is outside laboratory ms/msd specified limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria

Phyllis Shiller, Laboratory Director
July 26, 2010

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# NY Temperature Narration

**July 26, 2010**

**SDG I.D.: GAZ26690**

---

The samples in this delivery group were received at 4C.
(Note acceptance criteria is above freezing up to 6C)

**PHOENIX**
*Environmental Laboratories, Inc.*

# NY/NJ CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
**Client Services (860) 645-8726**

Temp 4 Pg 1 of 1

**Data Delivery:**
☐ Fax #: ____________
☐ Email: dpelletierpe@alum.rpi.edu

Customer: J ade Environmental, Inc.
Address: 59 Circle Dr
Hopewell Junction, NY 12533

Project: Clinton Terrace Bedrock Well
Report to: Dave Pelletier, P.E.
Invoice to: Same

Project P.O: ____________
Phone #: (914) 882-6074
Fax #: (845) 897-2189

**Client ~~Sample - Information~~ - Identification**

Sampler's Signature ____________ Date: 7-21-10

**Matrix Code:**
DW=drinking water WW=wastewater S=soil/solid O=oil
GW=groundwater SL=sludge A=air X=other

Analysis Request

| Phoenix Sample # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | VOC + EPA 8260 + | + | + | + | + | + | + | + | + | + | + | + | Soil VOA [ ] Methanol [ ] S. Bisulfate [ ] H2O | GL Soil container ( )oz | GL Soil container ( )oz | 40 ml VOA Vial [ ] As is [ ] HCl | GL Amber 1000ml [ ] As is [ ] H2SO4 | PL As is [ ] 250ml [ ] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 260690 | BRW - 1 | GW | 21-Jul-10 | 9:00 AM | x | | | | | | | | | | | | | | | | | | | | | | |
| 260691 | Stockpile Composite | S | 21-Jul-10 | 9:00 AM | x | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| Dave Pelletier | | 7-22-10 | 12M |
| | | 7.22.10 | 10:47 |

**Comments, Special Requirements or Regulations:**

**Turnaround:**
☑ 1 Day*
☐ 2 Days*
☐ 3 Days*
☐ Standard
☐ Other

* **SURCHARGE APPLIES**

**NJ**
☐ Res. Criteria
☐ Non-Res. Criteria
☐ Impact to GW Soil Cleanup Criteria
☐ GW Criteria

**NY**
☐ TAGM 4046 GW
☐ TAGM 4046 SOIL
☐ NY375 Unrestricted Soil
☐ NY375 Residential Soil
☐ NY375 Restricted Non-Residential Soil

**State where samples were collected:** NY

**Data Format**
☐ Phoenix Std Report
☐ Excel
☑ PDF
☐ GIS/Key
☐ EQuIS
☐ NJ Hazsite EDD
☐ NY EZ EDD (ASP)
☐ Other ____________

**Data Package**
☐ NJ Reduced Deliv. *
☐ NY Enhanced (ASP B) *
☐ Other

# APPENDIX C

# Citizen Participation Plan

New York State Department of Environmental Conservation

# Brownfield Cleanup Program

# Citizen Participation Plan
for
# Clinton Terrace Shopping Center
# C360110

74-82 Clinton Avenue
Ossining
Westchester County, New York

November 2009

## Contents

* * * * *

**Note:** The information presented in this Citizen Participation Plan was current as of the date of its approval by the New York State Department of Environmental Conservation. Portions of this Citizen Participation Plan may be revised during the brownfield site's remedial process.

Applicant: **Mehlich Associates ("Applicant")**
Site Name: **Clinton Terrace Shopping Center ("site")**
Site Address: **74-82 Clinton Avenue**
Site County: **Weschester County**
Site Number: **C360110**

## 1. What is New York's Brownfield Cleanup Program?

New York's Brownfield Cleanup Program (BCP) is designed to encourage the private sector to investigate, remediate (clean up) and redevelop brownfields. A brownfield is any real property where redevelopment or reuse may be complicated by the presence or potential presence of a contaminant. A brownfield typically is a former industrial or commercial property where operations may have resulted in environmental contamination. A brownfield can pose environmental, legal and financial burdens on a community. If the brownfield is not addressed, it can reduce property values in the area and affect economic development of nearby properties.

The BCP is administered by the New York State Department of Environmental Conservation (NYSDEC) which oversees Applicants that conduct brownfield site remedial activities.[1] An Applicant is a person whose request to participate in the BCP has been accepted by NYSDEC. The BCP contains investigation and remediation requirements, ensuring that cleanups protect public health and the environment. When NYSDEC certifies that these requirements have been met, the property can be reused or redeveloped for the intended use.

For more information about the BCP, go online at: **www.dec.state.ny.us/website/der/bcp** .

## 2. Citizen Participation Plan Overview

This Citizen Participation (CP) Plan provides members of the affected and interested public with information about how NYSDEC will inform and involve them during the investigation and remediation of the site identified above. The public information and involvement program will be carried out with assistance, as appropriate, from the Applicant.

Appendix A contains a map identifying the location of the site.

*Project Contacts*

Appendix B identifies NYSDEC project contact(s) to whom the public should address questions or request information about the site's remedial program. The public's suggestions about this CP

---

[1] "Remedial activities", "remedial action", and "remediation" are defined as all activities or actions undertaken to eliminate, remove, treat, abate, control, manage, or monitor contaminants at or coming from a brownfield site.

Plan and the CP program for the site are always welcome. Interested people are encouraged to share their ideas and suggestions with the project contacts at any time.

*Document Repositories*

The locations of the site's document repositories also are identified in Appendix B. The document repositories provide convenient access to important project documents for public review and comment.

*Site Contact List*

Appendix C contains the brownfield site contact list. This list has been developed to keep the community informed about, and involved in, the site's investigation and remediation process. The brownfield site contact list will be used periodically to distribute fact sheets that provide updates about the status of the project. These will include notifications of upcoming remedial activities at the site (such as fieldwork), as well as availability of project documents and announcements about public comment periods.

The brownfield site contact list includes, at a minimum:

X chief executive officer and official(s) principally involved with relevant zoning and planning matters of each county, city, town and village in which the site is located;
X residents, owners, and occupants of the site and properties adjacent to the site;
X the public water supplier which services the area in which the site is located;
X any person who has requested to be placed on the site contact list;
X the administrator of any school or day care facility located on or near the site for purposes of posting and/or dissemination of information at the facility;
X document repositories.

Where the site or adjacent real property contains multiple dwelling units, the Applicant will work with NYSDEC to develop an alternative method for providing such notice in lieu of mailing to each individual. For example, the owner of such a property that contains multiple dwellings may be requested to prominently display fact sheets and notices required to be developed during the site's remedial process. This procedure would substitute for the mailing of such notices and fact sheets, especially at locations where renters, tenants and other residents may number in the hundreds or thousands, making the mailing of such notices impractical.

The brownfield site contact list will be reviewed periodically and updated as appropriate. Individuals and organizations will be added to the site contact list upon request. Such requests should be submitted to the NYSDEC project contact(s) identified in Appendix B. Other additions to the brownfield site contact list may be made on a site-specific basis at the discretion of the NYSDEC project manager, in consultation with other NYSDEC staff as appropriate.

*CP Activities*

Appendix D identifies the CP activities, at a minimum, that have been and will be conducted during the site's remedial program. The flowchart in Appendix E shows how these CP activities integrate with the site remedial process. The public is informed about these CP activities through fact sheets and notices developed at significant points in the site=s remedial process.

X **Notices and fact sheets** help the interested and affected public to understand contamination issues related to a brownfield site, and the nature and progress of efforts to investigate and remediate a brownfield site.

X **Public forums, comment periods and contact with project managers** provide opportunities for the public to contribute information, opinions and perspectives that have potential to influence decisions about a brownfield site's investigation and remediation.

The public is encouraged to contact project staff at any time during the site's remedial process with questions, comments, or requests for information about the remedial program.

This CP Plan may be revised due to changes in major issues of public concern identified in Section 6. or in the nature and scope of remedial activities. Modifications may include additions to the brownfield site contact list and changes in planned citizen participation activities.

## 3. Site Information

*Site Description*

X **location – 74-82 Croton Ave, Ossining, Westchester County, New York**
X **setting – Suburban**
X **site size – Approximately 1 acre**
X **adjacent properties – Vicinity development includes both single and multi-family residential and light retail.**

*Site History*

X Available records indicate the site was formerly improved with two (2) two-story residential dwellings with typical ancillary structures (i.e. stables, sheds garages) constructed in the mid- to late 1800s. The dwelling known as 78 Croton Avenue was owned and occupied by the Jenks family, which may have used a portion of the dwelling for veterinary services based on records identifying Mr. Ralph C. Jenks as a veterinarian. The records confirm Mr. Jenks' occupation of the dwelling as far back as 1926 and indicate that Mr. Jenks sold the property to Wabil, Inc in 1954. Records indicate the dwelling known as 82 Croton Avenue was occupied by Fanny Gold and Sons Confectionary as of 1926, and by Leo Lubell, a retailer of Shakespeare Fishing Equipment, as of 1939. Wabil, Inc also purchased this structure in 1954 and razed both structures in 1955, preceding development of the Site as a grocery store in 1956.

A building permit issued for the Site in May 1956 indicates initial development included a single story commercial structure to be occupied by Gristedes food market. A certificate of occupancy was issued to Gristedes on Nov 5, 1956. This original development was situated at the northern end of the current building, in the area currently occupied by a Chinese restaurant and a coin laundry. Records indicate the remaining portion of the building was added in 1960. The original plans for the addition called for a bank in the southern most unit, but later records indicate Fabril Cleaners occupied this unit and developed the Westinghouse Coin Operated Dry Cleaning Plant. Records indicate the remaining spaces of the addition were occupied by various tenants including restaurants, a cheese shop, a delicatessen, multiple salons, a stationary store and a pharmacy. Other than the dry cleaners, records do not indicate the presence of any other historical tenants of the shopping center with the potential to have impacted the Site as a result of handling hazardous materials.

X Available records indicate the southernmost unit of the shopping center at 74 Croton Avenue, currently occupied by a pharmacy, was permitted in 1961 to install ten dry cleaning machines in the northwest corner of the unit and opened its doors on January 6, 1962 as the Westinghouse Coin Operated Dry Cleaners and Laundromat. The records indicate the self operated dry cleaning equipment was surrounded by a containment dike fixed with a drain that collected spilled solvent and directed it to a 550 gallon emergency perchloroethylene (PCE) overflow tank buried beneath the floor slab under the equipment. Records indicate that in 1975 permits were issued to bisect the unit and reoccupy the two spaces with a medicine shop and cheese shop, units 74 and 74A respectively. The space remains fully occupied by a pharmacy at this time.

Although details regarding the former cleaning plant are unavailable, it is presumed that during the 13 years the dry cleaners was in operation, Perchloroethylene (Perc), a state regulated hazardous material, was used for cleaning of clothing and other fabrics. Recent testing indicates Perc was being spilled during its daily use and the liquid percolated down through soil beneath the building, is dissolving in groundwater and is migrating with groundwater out from under the building beneath the parking lot.

*Environmental History*

X Investigation activities completed to date have confirmed the source of the contamination was the former location of the dry cleaning equipment. The investigation indicates most, if not all of the soil contamination is contained beneath the building. However, groundwater beneath the contaminated soil is migrating in a northerly northwesterly direction and carrying low levels of the perc beneath the parking lot in front of the building. Testing indicates little if any (less than 5 parts per billion or micrograms per liter) of the Perc has reached adjoining properties, including adjoining properties north and down gradient of the site.

X Although testing indicates little if any of the contamination has left the site, additional testing is planned to ascertain whether or not perchloroethylene is migrating up from the groundwater, through shallow soils and entering the air space of buildings on properties adjoining the Site. Currently, the presence of the Perc is not considered a significant threat to human health because the perc is buffered by as much as 20 feet of soil underlying blacktop or concrete, making human contact difficult without the aid of heavy equipment. Moreover, because the area is provided potable water by Westchester County from a far off source, it is highly unlikely the Perc is being captured by any nearby public or private water supply wells.

## 4. Remedial Process

**Note:** See Appendix E for a flowchart of the brownfield site remedial process.

*Application*

The Applicant has applied for and been accepted into New York's Brownfield Cleanup Program as a Volunteer. This means **that the Applicant was not responsible for the disposal or discharge of the contaminants or whose ownership or operation of the site took place after the discharge or disposal of contaminants. The Volunteer must fully characterize the nature and extent of contamination onsite, and must conduct a "qualitative exposure assessment," a process that characterizes the actual or potential exposures of people, fish and wildlife to contaminants on the site and to contamination that has migrated from the site.**

The Applicant in its Application proposes that the site will be used for **unrestricted** purposes.

To achieve this goal, the Applicant will conduct remedial activities at the site with oversight provided by NYSDEC. The Brownfield Cleanup Agreement executed by NYSDEC and the Applicant sets forth the responsibilities of each party in conducting a remedial program at the site.

*Investigation*

If the Applicant conducts a remedial investigation (RI) of the site, it will be performed with NYSDEC oversight. The Applicant must develop a remedial investigation workplan, which is subject to public comment as noted in Appendix D. The goals of the investigation are as follows:

1) Define the nature and extent of contamination in soil, surface water, groundwater and any other impacted media;

2) Identify the source(s) of the contamination;

3) Assess the impact of the contamination on public health and/or the environment; and

4) Provide information to support the development of a Remedial Work Plan to address the contamination, or to support a conclusion that the contamination does not need to be addressed.

The Applicant has prepared the RI Report which summarize the results of the RI and includes the Applicant's recommendation for remediation needed to address site-related contamination. The RI Report is subject to review and approval by NYSDEC. Before the RI Report is approved, a fact sheet that describes the RI Report will be sent to the site's contact list.

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/**.

### *Remedy Selection*

When NYSDEC has approved the RI Report, the Applicant prepares a Remedial Work Plan. The Remedial Work Plan describes how the Applicant plans to address the contamination related to the site. The public will have the opportunity to review and comment on the draft Remedial Work Plan. The site contact list will be sent a fact sheet that describes the draft Remedial Work Plan and announces a 45-day public comment period. NYSDEC will factor this input into its decision to approve, reject or modify the draft Remedial Work Plan.

A public meeting may be held by NYSDEC about the proposed Remedial Work Plan if requested by the affected community and if significant substantive issues are raised about the draft Remedial Work Plan. Please note that, in order to request a public meeting, the health, economic well-being or enjoyment of the environment of those requesting the public meeting must be threatened or potentially threatened by the site. In addition, the request for the public meeting should be made within the first 30 days of the 45-day public comment period for the draft Remedial Work Plan. A public meeting also may be held at the discretion of the NYSDEC project manager in consultation with other NYSDEC staff as appropriate.

### *Construction*

Approval of the Remedial Work Plan by NYSDEC will allow the Applicant to design and construct the alternative selected to remediate the site. The site contact list will receive notification before the start of site remediation. When the Applicant completes remedial activities, it will prepare a final engineering report that certifies that remediation requirements have been achieved or will be achieved within a specific time frame. NYSDEC will review the report to be certain that the remediation is protective of public health and the environment for the intended use of the site. The site contact list will receive a fact sheet that announces the completion of remedial activities and the review of the final engineering report.

### *Certificate of Completion and Site Management*

Once NYSDEC approves the final engineering report, it will issue the Applicant a Certificate of Completion. This Certificate states that remediation goals have been achieved, and relieves the Applicant from future remedial liability, subject to statutory conditions. The Certificate also includes a description of any institutional and engineering controls or monitoring required by the approved remedial work plan. If the Applicant uses institutional controls or engineering controls to achieve remedial objectives, the site contact list will receive a fact sheet that discusses such controls.

An institutional control is a non-physical restriction on use of the brownfield site, such as a deed restriction that would prevent or restrict certain uses of the remediated property. An institutional control may be used when the remedial action leaves some contamination that makes the site suitable for some, but not all uses.

An engineering control is a physical barrier or method to manage contamination, such as a cap or vapor barrier.

Site management will be conducted by the Applicant as required. NYSDEC will provide appropriate oversight. Site management involves the institutional and engineering controls required for the brownfield site. Examples include: operation of a water treatment plant, maintenance of a cap or cover, and monitoring of groundwater quality.

## 5. Citizen Participation Activities

CP activities that have already occurred and are planned during the remediation of the site under the BCP are identified in Appendix D: Identification of Citizen Participation Activities. These activities also are identified in the flowchart of the BCP process in Appendix E. 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.

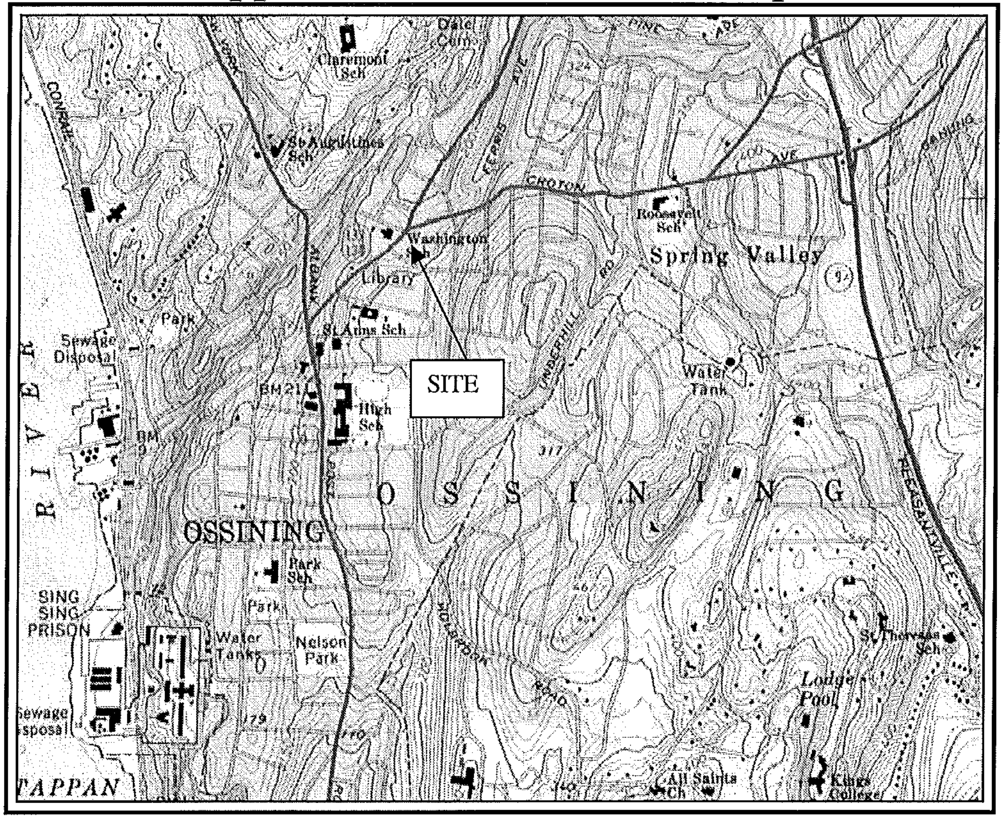
All written materials developed for the public will be reviewed and approved by NYSDEC for clarity and accuracy before they are distributed. Notices and fact sheets can be combined at the discretion, and with the approval of, NYSDEC.

## 6. Major Issues of Public Concern

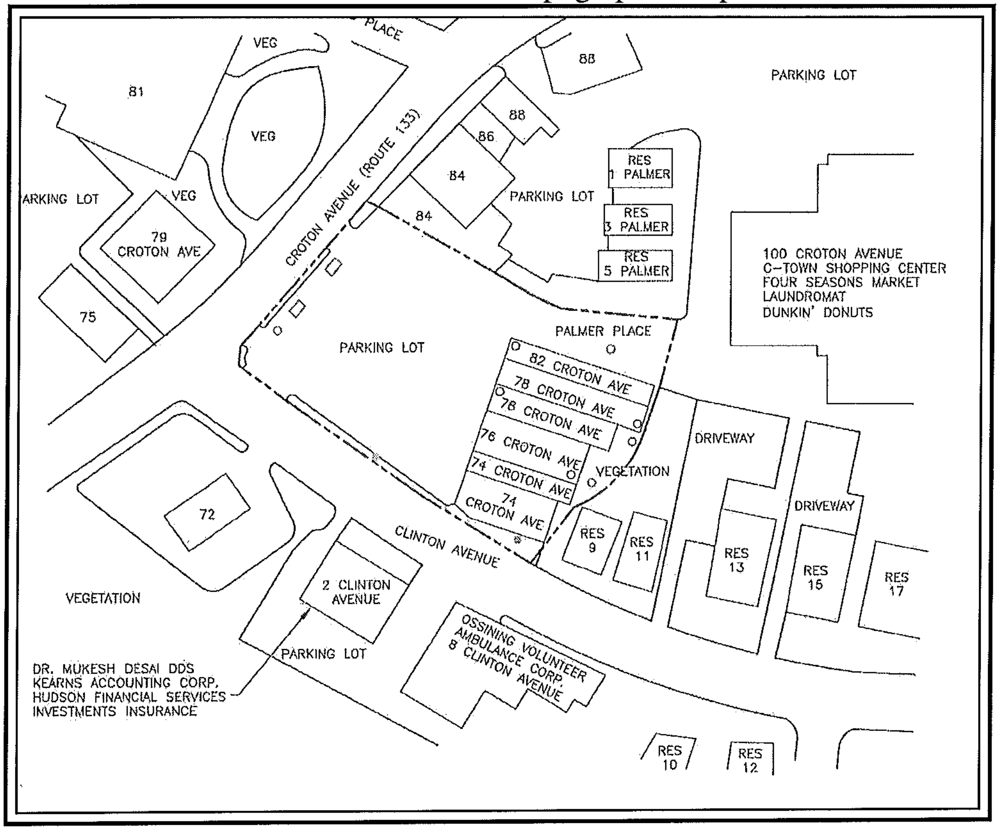
This section of the CP Plan identifies major issues of public concern, if any, that relate to the site. Additional major issues of public concern may be identified during the site's remedial process.

At this time no Major Issues of Public Concern exist for the Site other than the possibility of vapor intrusion into structures on adjoining properties. Testing is planned in the near future (i.e November 2009) for testing to assess whether such vapor intrusion exists, and if so, whether or not it rises to the level warranting remedial effort. This CP Plan will be updated to address the results of the testing and detail any interim plans or efforts to address any issues identified by the testing.

# Appendix A – Site Location Maps



USGS 7.5 Minute Topographis Map



Site and Vicinity Map

# Appendix B – Project Contacts and Document Repositories

## Project Contacts

For information about the site's remedial program, the public may contact any of the following:

**New York State Department of Environmental Conservation (NYSDEC):**

John Miller
Project Manager
NYSDEC
Division of Environmental Remediation
625 Broadway, Albany, NY 12233-7014
(518) 402-9662

Michael J Knipfing
Citizen Participation Specialist
NYSDEC Region III
21 S. Putt Corners Road
New Patlz, New York 12561
(845) 256-3154

**New York State Department of Health (NYSDOH):**
Nathan M. Walz
Public Health Specialist II
New York State Dept. of Health
Flanigan Square
547 River Street
Troy, NY 12180
Phone: (518) 402-7880

**Owners representatives**

Engineer
Jade Environmental, Inc.
59 Circle Dr.
Hopewell Junction, NY 12533
Attn: Dave Pelletier, P.E.
(914) 882-6074

Legal Counsel
Kevin M Young, Esq.
Young, Sommer, LLC
Executive Woods
5 Palisades Dr
Albany, New York 12205
(518) 438-9907 ext 225

## Document Repositories

The document repositories identified below have been established to provide the public with convenient access to important project documents:

Ossining Public Library
53 Croton Avenue, Ossining, New York
Attn: Ms Molly W Robbins
Phone: (914) 941-2416
Hours: Monday – Thursday 9 am - 9 pm, Friday – Saturday 9 am - 5:30 pm and Sunday 12 noon - 5 pm. The library is closed for the 13 major public holidays.

NYSDEC
Division of Environmental Remediation
625 Broadway, Albany, NY 12233-7014
(518) 402-9662
Attn: Mr. John Miller
Phone: (518) 402-7880
Hours: 8-5 M-F (call for appointment)

# Appendix C
# Brownfield Site Contact List

## State Government Officials

William Janeway
Regional Director
NYSDEC
21 South Putt Corners Road
New Paltz, New York 12561
wcjanewa@gw.dec.state.ny.us

Wendy Rosenbach
Public Affairs Officer
NYSDEC
21 South Putt Corners Road
New Paltz, New York 12561
warosenb@gw.dec.state.ny.us

Ed Moore
NYSDEC
21 South Putt Corners Road
New Paltz, New York 12561
elmoore@gw.dec.state.ny.us

Michael J. Knipfing
NYSDEC
21 South Putt Corners Road
New Paltz, New York 12561
mjknipfi@gw.dec.state.ny.us

Alec Ciesluk
NYSDEC
21 South Putt Corners Road
New Paltz, New York 12561
afcieslu@gw.dec.state.ny.us

Harold Evans
NYSDEC
625 Broadway
Albany, New York 12233
hxevans@gw.dec.state.ny.us

Sal Ervolina, P.E.
NYSDEC
625 Broadway
Albany, New York 12233
sxervoli@gw.dec.state.ny.us

Mary Young
NYSDEC
625 Broadway
Albany, New York 12233
mtyoung@gw.dec.state.ny.us

Gary Litwin
NYSDOH
547 River Street
Troy, New York 12180
gal09@health.state.ny.us

Mark Van Valkenburg
NYSDOH
547 River Street
Troy, New York 12180
mev05@health.state.ny.us

Nathan Walz, Project Manager
NYSDOH
547 River Street
Troy, New York 12180
nmw02@health.state.ny.us

Rosalie Rusinko, Esq.
NYSDEC
100 Hillside Avenue
Suite 1W
White Plains, NY 10603
rkrusink@gw.dec.state.ny.us

**Local Government Officials**

Hon. Charles Schumer
US Senate
Washington, DC 20510

Hon. Kirsten Gillibrand
US Senate
Washington, DC 20510

Representative Nita Lowey
222 Mamaroneck Avenue, Suite 310
White Plains, New York 10605

State Senator Suzi Oppenheimer
222 Grace Church Street
Port Chester, New York 10573

William E. Burton, Legislator
Westchester County
800 Michaelian Office Building
White Plains, New York 10601

Tina Seckerson, Clerk
County Legislature
800 Michaelian Office Building
White Plains, New York 10601

Andrew Spano, County Executive
148 Martine Avenue
White Plains, New York 10601

Timothy Idoni, Westchester County Clerk
110 Dr. Martin Luther King Jr. Boulevard
White Plains, New York 10601

Dr. Joshua Lipsman, Commissioner
County Health Department
145 Huguenot Street
New Rochelle, New York 10801

Gerard Mulligan, Commissioner
County Planning Department
148 Martine Avenue
White Plains, New York 10601

Ralph L. Butler, Commissioner
Public Works
148 Martine Avenue
White Plains, New York 10601

Salvatore Carrera, Director
Economic Development
148 Martine Avenue
White Plains, New York 10601

Karen M. Pasquale
State Government Relations
148 Martine Avenue
White Plains, New York 10601

Village of Ossining – Mayor
William R Hanauer
16 Croton Avenue
Ossining, NY 10562

Village of Ossining – Clerk
Mary Ann Roberts
16 Croton Avenue
Ossining, NY 10562

John Hamilton
Director of Code Enforcement
P.O. Box 1166
101 Route 9A
Ossining, NY 10562
jhamilton@ossbuilding.org

Louis Caraisco
Building Inspector
P.O. Box 1166
101 Route 9A
Ossining, NY 10562
lcaraisco@ossbuilding.org

Valerie Monastra
Village Planner
16 Croton Avenue
Ossining, NY 10562
vmonastra@ossbuilding.org

Paul Fraioli P.E.
Village Engineer
16 Croton Avenue
Ossining, NY 10562
PFraioli@villageofossining.org

Andrew Tiess
Superintendent of Water/Sewer
16 Croton Avenue
Ossining, NY 10562
Atiess@villageofossining.org

James Castaldi, Trustee
Village of Ossining
16 Croton Avenue
Ossining, NY 10562

Michael Curry, Trustee
Village of Ossining
16 Croton Avenue
Ossining, NY 10562

Marlene Cheatham, Trustee
Village of Ossining
16 Croton Avenue
Ossining, NY 10562

Susanne Donnelly, Trustee
Village of Ossining
16 Croton Avenue
Ossining, NY 10562

Linda Cooper, Manager
Village of Ossining
16 Croton Avenue
Ossining, NY 10562

Catherine Borgia, Supervisor
Village of Ossining
16 Croton Avenue
Ossining, NY 10562

## **Environmental Organizations**

Scenic Hudson
1 Civic Center Plaza
Poughkeepsie, New York 12601

Clearwater, Inc.
112 Market Street
Poughkeepsie, New York 12601

Greenway Conservancy
Capitol Building
Capitol Station, Room 254
Albany, New York 12224

The Nature Conservancy
Eastern NY Chapter
265 Chestnut Ridge Road
Mt. Kisco, New York 10549

Westchester Environmental Coalition
P.O. Box 488
White Plains, New York 10602

Federated Conservationists of Westchester
78 N. Broadway
White Plains, New York 10603

Karl Coplan, Esq.
Pace/Riverkeeper
78 N. Broadway
White Plains, New York 10603

Beczak Environmental Center
21 Alexander Street
Yorkers, New York 10701

Environmental Citizens Coalition
33 Central Avenue
Albany, New York 12210

Laura Haight
NYPIRG
107 Washington Avenue
Albany, New York 12210

Westchester County EMC
414 Michaelian Office Building
White Plains, New York 10601

Sierra Club
Atlantic Chapter
353 Hamilton Street
Albany, New York 12210

Robert Funicello
Director of Environmental Projects
Department of Environmental Facilities

## Local Media

City Editor
El Clarin – Westchester County Edition
48 Broadway
Haverstraw, New York 10927

City Editor
Associated Press
148 Martine Avenue, CB Press
White Plains, New York 10601

City Editor
Gannett Suburban Newspapers
1 Gannett Drive
White Plains, New York 10604

City Editor
Rising Publications
25 Warburton Avenue
Yonkers, New York 10701

City Editor
Suburban Street News
170 Hamilton Avenue, Suite 211
White Plains, New York 10601

City Editor, The New York Times (White Plains Bureau)
235 Main Street
White Plains, New York 10601

City Editor
The Business Journal
3 Gannett Drive
White Plains, New York 10604

City Editor
Patent Trader-Journal News
185 Kisco Avenue
Mount Kisco, New York 10549-1409

City Editor
Westchester County Weekly
229 W. 43rd Street
New York, New York 10036

City Editor
Westchester County Press
P.O. Box 152
White Plains, New York 10602

City Editor
Yonkers Jewish Chronicle
584 North Broadway
Yonkers, New York 10701

News Director
WHUD/WLNA
P.O. Box 310
Beacon, New York 12508

News Director
WRTN/WVOX
1 Broadcast Forum
New Rochelle, New York 10801

News Director
News 12
6 Executive Plaza
Yonkers, New York 10701

News Director
Paragon Cable
701-717 MacQuestein
Mount Vernon, New York 10552

News Director
WRNN TV
721 Broadway
Kingston, New York 12401

Lisa Phillips, Bureau Chief
WAMC
44 Main Street
Kingston, New York 12401

Hank Gross
Mid-Hudson News Network
42 Marcy Lane
Middletown, New York 10941

City Editor
Westmore News, Inc.
33 Broad Street
Port Chester, New York 10573

City Editor
America Latina
33 Broad Street
Port Chester, New York 10573

New Director
Women's eNews
6 Barclay Street, Fifth Floor
New York, New York 10007

News Director
WFAS-AM
P.O. Box 551, 365 Secor Road
Hartsdale, New York 10530

## Adjacent Site Owners

(Confidential) On file at NYSDEC

## Current Property Owners / Operators

Mehlich Assoicates
Attn: Bob Mehlich
8 Depot Square
Tuckahoe, New York 10707
rmehlich@mehlichassoc.com

## **Tenants / Occupants**

Zihe Zang
New China Kitchen
82 Croton Ave.
Ossining, NY 10582

Victor Dedona
Ossining Laundry
78 Croton Ave.
Ossining, NY 10562

Mail Address: 3 Chardonnay Rd
Cortlandt Manor, NY 10567

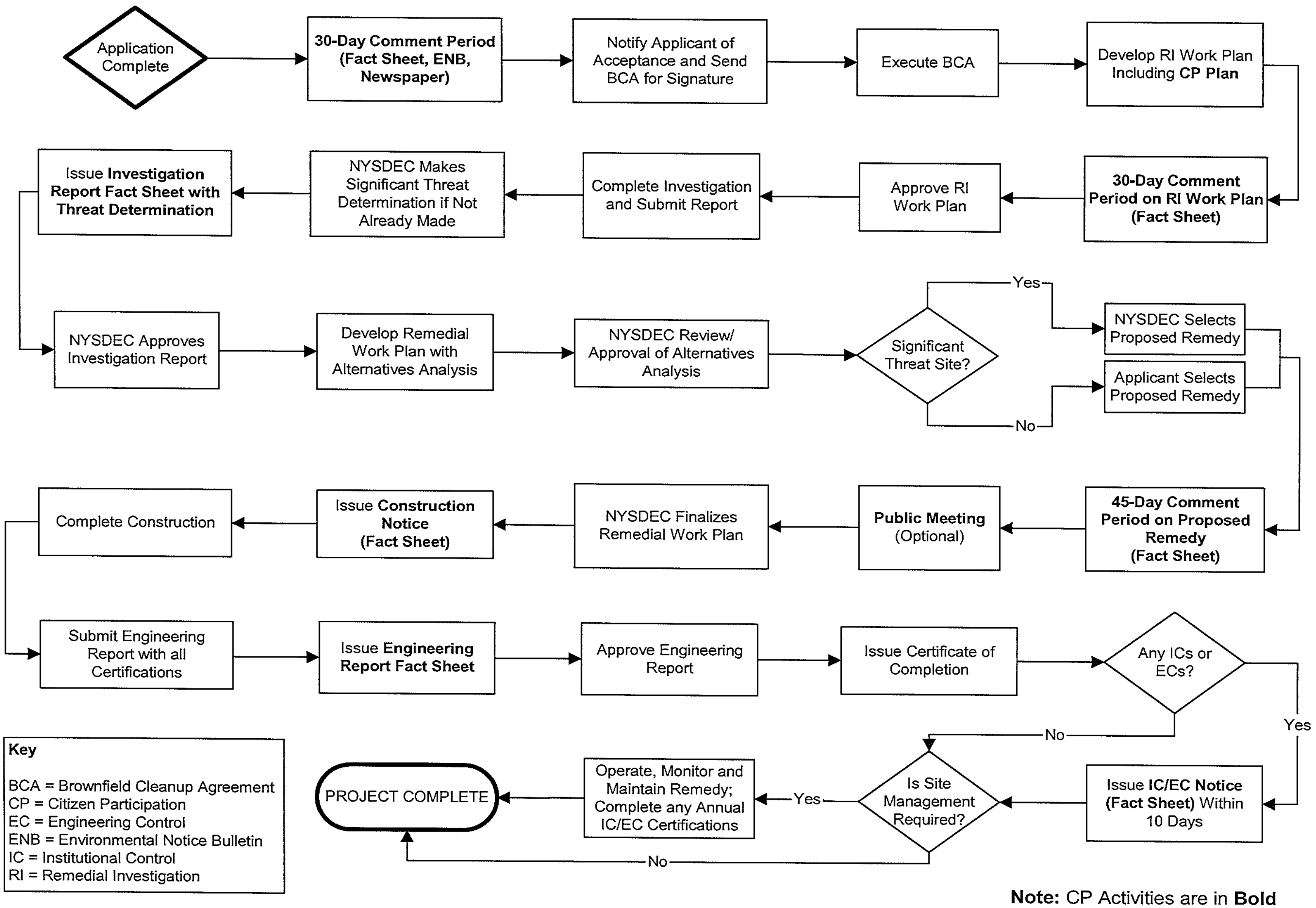
Sharma Maharaj
Big Top
76 Croton Ave.
Ossining, NY 10562

Prescription Center of Ossining, Inc.
74 Croton Ave.
Ossining, NY 10562

# Appendix D – Identification of Citizen Participation Activities

| Required Citizen Participation (CP) Activities | CP Activities Occur at this Point |
|---|---|
| **Application Process:** | |
| • Prepare brownfield site contact list (BSCL)<br>• 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<br>• 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<br>• 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. |

# Appendix E – Brownfield Cleanup Program Process



**Note:** CP Activities are in **Bold**

# APPENDIX D

# Alternative Analysis Report

# REMEDIAL ALTERNATIVES ANALYSIS REPORT

CLINTON TERRACE SHOPPING CENTER

74-82 CLINTON AVENUE

OSSINING, WESTCHESTER COUNTY, NEW YORK

**BROWNFIELD PROJECT NO.:C360110**

*Prepared for:*

Mehlich Associates, Volunteer
Eastchester, New York

*Prepared by:*

Jade Environmental, Inc.
Hopewell Junction, New York

*Reviewed by:*

New York State Department of Environmental Conservation

Division of Environmental Remediation

Remedial Bureau C

625 Broadway, Albany, New York 12233-7010

August 5, 2010

## 1.0 INTRO / BACKGROUND / REMEDIAL INVESTIGATION – EXPOSURE ASSESSMENT SUMMARY

Responses to the uncontrolled release of regulated substances into the environment are regulated on both the federal and state levels under a broad range of regulations from CERCLA to RCRA on the federal level and the Navigation and Environmental Conservation Laws of the State of New York. Although the terminology used by applicable authorities varies, in each case the identification and selection of the appropriate response to a release of hazardous substances is conducted in an orderly, phased approach. The regulations/guidance used in the preparation of this analysis are presented in the following documents implemented by the New York State Department of Environmental Conservation ("NYSDEC"):

(1) DER-10 "Technical Guidance for Site Investigation and Remediation" May 3, 2010
(2) Title 6 NYCRR Part 375 Effective December 14, 2006.

### 1.1 Preliminary Approach.

Interim measures aside, identification of the appropriate response to the uncontrolled release of hazardous substances should be an orderly, phased approach initiated by the collection and evaluation of significant quantities of data typically assembled as follows:

(1) Phase I Environmental Site Assessment (Phase I – no testing);
(2) Phase II Environmental Site Assessment (Phase II – limited confirmatory testing); and
(3) Phase III Contaminant Delineation Investigation (Phase III – comprehensive testing / measurement). The Phase III is also commonly referred to as the Remedial Investigation / Feasibility Study (RI/FS) in the states hazardous waste program, if conducted in accordance with, and under the observation of NYSDEC and applicable requirements:

#### *1.1.1 Phase I Environmental Site Assessment ("Phase I")*

The Phase I includes a thorough site inspection, interviews with individuals familiar with the site including tenants, property owners / managers, neighbors and local officials and a review of available records, plans and drawings in order to establish current and past land uses. The emphasis of the Phase I is placed on the identification of activities that could have resulted in a release of hazardous substances.

In this case, the Phase I identified the past use of the shopping center for dry cleaning, which reportedly used the cleaning solvent Perchloroethylene ("PCE"), a listed hazardous material/waste. Because PCE exists in a liquid form under standard conditions, it has the potential to be spilled and enter the subsurface were it will reside and continually spread throughout the environment. In this case, the dry cleaner reportedly operated ten (10) coin operated machines which collected spilled PCE and directed it via gravity to an overflow tank buried beneath the floor.

The Phase I for this effort was conducted by Bureau Veritas and is considered an integral part of this project. For specific details regarding the use of PCE on-site, refer to the Phase I which is appended to the Remedial Action Plan ("RAP") herewith. A copy of the RAP and other relevant documents relative to this project are available for viewing in the Reference Section of the Ossining Public Library, which is located one block south of the Site on Croton Avenue.

#### *1.1.2 Phase II Environmental Site Assessment ("Phase II")*

Should the Phase I identify a potential environmental concern (in this case the past use of PCE on-site), a Phase II may be conducted. The purpose of the Phase II is essentially to test various environmental features of the site (i.e. soil, groundwater, sediment, surface water, air, etc.) in search of evidence of a release. A Phase II is typically limited in nature and focuses on minimal testing in the most suspect areas where residual material would be expected in the event of a release (i.e. around tanks, beneath equipment, floor drains, back doors, etc.). Collected samples will typically be analyzed by a chemistry lab for the presence of the suspect contaminant and the results compared to applicable state environmental quality criteria. Should an exceedance of the applicable criteria be identified, that exceedance must be report to the state regulatory agency with plans filed to address the findings.

The extent or magnitude of the Phase II is typically a function of the purpose of the investigation (i.e. acquisition, refinance, enforcement, etc.), but is typically only designed to confirm or deny whether regulated substances have been released into the environment, and if so, start the work of evaluating how site physiographic features will affect the spread of the contaminant and what potentially sensitive receptors may be impacted (i.e. water wells, wetlands, waterways, air quality, etc.).

The Phase II for this effort was conducted by Bureau Veritas and is considered an integral part of this project. For specific details regarding the initial identification of PCE in Site soils and groundwater, a copy of the Phase II can be found in the appendices of the Remedial Action Plan (“RAP”) on file at the Ossining Public Library for review.

### *1.1.3 Phase III Contaminant Delineation Investigation*

Should the Phase II confirm the presence of contamination beneath the Site, a Phase III or RI/FS would be the next step in order to obtain a comprehensive understanding of the chemical and physical characteristics of the Site. The data collected during the Phase III is used to establish the appropriate means to mitigate the contaminant condition (i.e. support the Remedial Work Plan) and begins the process of reestablishing compliance with state environmental regulations. The NYSDEC has been notified of the contaminant condition present at this Site and the Site has been placed in the states’ Brownfield Program. The NYSDEC has assigned Mr. John Miller, as Case Manager to oversee the investigation/mitigation process.

The results of the Phase III can be extrapolated and used to identify the “source(s)” or “hot spots” on the site, which are the focus of any mitigation plan, as these Hot Spots will continue to release contamination into the environment through migratory pathways (i.e. groundwater, desiccated clay soil, fractured bedrock, etc.), if not mitigated. The results of the Phase II indicate a release “source” of PCE in soil beneath the building that is migrating down to groundwater and flowing in a northwesterly direction with groundwater. The spill is anticipated to be the result of a leaking overflow tank buried beneath the northwest corner of the currently vacant Pharmacy which was occupied by a dry cleaner. The dry cleaner operated 10 dry cleaning machines at the northwest corner of the unit in a 5 x 5 configuration which were underlain my an emergency overflow tank. No information was available indicating the tan was removed when the dry cleaner vacated the building. If the contaminated soil beneath the building is not remediated, it will continue to leach into groundwater and spread through the environment. It also represents a continued threat to the future occupants of the building in the form of soil vapor intrusion. Data collected to date indicates the underlying bedrock aquifer has not been impacted by the release. Moreover, the data has not identified any potential exposure to off-site concerns.

The objective of the Phase III is not the unobtainable goal of removing all uncertainty associated with the presence of contamination on a Site, but rather to gather information sufficient to ultimately support an informed risk management decision in the most appropriate means of addressing a contaminant conditions (i.e. remediate/natural attenuation/monitoring, etc.). The Phase III for this effort was conducted by Jade Environmental Inc. and is considered an essential part of this project and is the basis for the decision making process as this project proceeds. A copy of the Phase III (“RI/FS”) can be found as an exhibit to the Remedial Action Plan on file with the Ossining Public Library reference section.

Please refer to the Remedial Work Plan and Remedial Investigation attached thereto for specific Site Background /Exposure Assessment information.

## 1.2 Brownfield Remedy Requirements

### *1.2.1 Track Establishment/Decision Process*

The Brownfield Clean-up Program ("BCP") allows for a range of Remedial Objectives or "Tracks". The evaluation into which Track most appropriately fits a particular Site, centers around the reasonably foreseeable future use and value of the remedial site and its permitted uses (zoning). Although it serves the best interest of all to endeavor for Track 1 clean-up which allows for "unrestricted use" of the Site after clean-up without the use of environmental easements or engineering controls, economics and feasibility may make such a milestone impossible or infeasible.

For example, zoning aside, the economics of cleaning up a large industrial property to meet unrestricted use and be redeveloped into a preschool would likely be infeasible from a cost and valuation stand point. However, conversely, in some circumstances asset valuation may drive clean-ups beyond intended site use/zoning regulations. For example, cleaning up a site to track 4 objectives may meet intended property use/zoning requirements, however, it may devalue the asset to an extent much greater than the cost to do the additional clean-up. In other words, despite the extensive effort provided by this evaluation process, an owner may default to a Track 1 clean-up, in order to avoid the stigma associated with environmental easements and engineering controls and thus maintain an assets' marketability. The following table provides a very brief summary of the available clean-up tracks available through the Brownfield Program.

| Track | Intended Use | Details |
|---|---|---|
| Track 1 | Unrestricted Use | This tract provides for unrestricted future use of the site and shall achieve the unrestricted soil clean-up objectives for all soil above bedrock set forth in Table 375-6.8(a) of the Brownfield regulations. The clean-up shall not include the use of long term institutional or engineering controls, however, provides for limited and temporary restrictions on groundwater, if the applicant is a volunteer and can demonstrate a post remedial bulk reduction in groundwater contamination. |
| Track 2 | Restricted Use | Clean-up of soil above bedrock proceeds to generic soil clean-up objectives based on the anticipated use of the site (i.e. industrial, commercial, residential). This tract also provides for soil clean-up to a depth of 15' under certain conditions, thus limiting potentially expensive mitigation work. This tract does not allow for long term engineering and/or administrative controls to address soil mitigation but does allow them for groundwater and soil vapor to protect human health. |
| Track 3 | Restricted Use | This tract follows the Tract 2 program requirements except for the fact that it allows for the modification of one or more site specific contaminants based on site specific data. |
| Track 4 | Restricted Use | This tract allows for the use of engineering and/or institutional controls for all media and as such allows for less conservative SCGs to meet the requirements. A typical example of an engineering control includes encapsulation such as the upper 2' of all remaining exposed soil on-site to be certified clean to encapsulate underlying indigenous soils that may contain residual contamination. For restricted "commercial" use, the top 1' of exposed soil must be certified clean. |

As approved by the Volunteer, based on the existing conceptual model for the Site with respect to the solvent contamination present, the proposed remedial efforts detailed in the Remedial Action Plan allows for a Tract 4 clean-up objective, which will include engineering and institutional controls to meet the Protection of Human Health and the Environment Requirements. Based on the proposed redevelopment of the Site as a Pharmacy, the proposed Track 4 clean-up will include compliance with Soil Clean-Up Objectives (SCO's) provided under the "Restricted-Commercial Use" column of Table 375-6.8(b).

### *1.2.2 Remedial Alternative Analysis Requirements*

A The BCP guidelines require this RAA include the following:
  a) *Description* of each alternative evaluated;
  b) *Discussion* of how each alternative will meet the requirements of the remedial program and track selected;
  c) *Analysis* of each alternative against the following:
    i. Overall Protectiveness of the Public Health and Environment;
    ii. Applicable SCGs;
    iii. Long-term effectiveness and permanence;
    iv. Reduction in toxicity, mobility or volume of contamination;
    v. Short term impacts and effectiveness;
    vi. Implementability;
    vii. Cost effectiveness, incl. capital costs and long term maintenance;
    viii. Community Acceptance;
    ix. Land Use:
  d) *Evaluation* of the reliability and viability of the long term implementation, maintenance, monitoring and enforcement of any engineering or administrative controls:
  e) *Evaluation* of remedial alternatives that can achieve groundwater plume stabilization;
  f) *Identification* of alternative preferred by the Applicant;
  g) *Summary* of proposed remedy and basis for concluding the selection represents the best alternative among those considered;
  h) *Other* information required by the department;

B If required by the NYSDEC, an RAA proposing a remediation pursuant to Track 1, shall evaluate a remedial program capable of achieving Track 1 requirements, however;
C An RAA pursuant to a track other than Track 1 shall evaluate at least two alternatives, including one alternative that meets Track 1 requirements and a second that meets the intended use of the Site for the foreseeable future.
D Plume Stabilization - if required (see Title 6 Part 375-3.8 (f)(4))

# 2.0 SITE SPECIFIC REMEDIAL ALTERNATIVE ANALYSIS (RAA)

## 2.1 Typical Contaminant Characteristics and Remedial Techniques

The following sections summarize typical contaminant conditions associated with a release of PCE into the environment and the most widely used technologies to address them.

### *2.1.1 Typical Contaminant Characteristics*

As will be seen in the following sections, a particular remedial plan may include one or more remedial techniques to address the various characteristics of the Site and the contamination present. Some of these considerations include, but are not limited to:

- Undissolved solvent floating on the water table;
- Undissolved solvent sinking in the aquifer and residing on a confining layer;
- Dissolved solvent suspended in the aquifer;
- Residual contamination adhered to soil particles both above and below the water table;
- Solvent present in soil void space under “saturated” conditions:

### *2.1.2 Typical Remedial Techniques*

The costs, timing, effectiveness and administration of the most commonly used remedial technologies vary widely. Decisions as to the appropriate means of mitigation are not always contingent upon cost and effectiveness, as would be expected. In some cases, timing and feasibility will drive the decision making process. As you will see in the following subsections, certain remedial techniques succeed where others fail. For example, excavation and disposal is the fastest and most permanent means of mitigation, however, access may make excavation infeasible. In such an event, a secondary technique could be applied that is not constrained as a result of access, such as oxidation and/or enhanced natural attenuation.

As a result of the favorable and unfavorable aspects of a particular technology, most remedial programs include more than one remedial technology chosen based on site specific circumstances such as access, contaminant characteristics (i.e. volatile, floater, sinker, degradability, etc.) aquifer depth and transmissivity, contaminant load and extent, as well as standard considerations of timing, costs and effectiveness. The following subsections summarize each of the most commonly used remedial techniques associated with solvent mitigation as well as their strong and weak points.

#### 2.1.2.1 Excavation and Disposal

Contaminated soil is collected and transported to a permanent containment facility (i.e. landfill). Costs associated with this method of remediation are typically higher than other technologies, but its speed and permanence cannot be beat. As noted above, this technology is limited by access (i.e. contamination that exists under buildings or roads, in the saturated zone or just very deep).

#### 2.1.2.2 Pump and Treat

Contaminated groundwater is pumped from the formation and either treated on-site and reintroduced into the environment, or is collected and transported to a reclamation facility of treatment works (i.e. low recovery conditions). This technology is effective on limited access sites (i.e. under buildings, deep groundwater) or on very large plumes that make the costs of excavation and disposal infeasible. However, its limitations include, but are not limited to, prestart-up effectiveness estimates are difficult to determine and are typically over estimated, high operations and maintenance costs and long term solution. Thos technology typically requires years to decades to reestablish compliance with applicable SCGs. It is a primary solution to groundwater plume containment (i.e. to protect down gradient sensitive receptors).

2.1.2.3 Air Sparging/Vapor Extraction

Air is introduced into the formation, typically below the water table and plume, introducing oxygen thus accelerating oxidation of organic contaminants. The aeration also strips contamination from the formation where it can be collected and extracted from the formation via vacuum extraction plumbing installed above the saturated zone. This less intrusive remedial technique is most aptly applied to highly permeable formations on sites where longer term solutions meet program requirements and access is limited. The technology succeeds at generating little waste requiring special handling/expensive disposition as well as protecting future developments from soil vapor intrusion. However, lacks in effectiveness and is considered a long term solution which can also last for several years or decades if not applied as a compliment to another more effective remedial technology such as excavation/disposal. It fails at plume containment.

2.1.2.4 Chemical/Biological Degradation (or similar in-situ technology)

Oxygen or hydrogen based compounds are distributed through the formation to oxidize organics upon contact. Similarly, compounds are injected into the formation with the objective of enhancing the indigenous microbiology present in the formation in an effort to accelerate metabolism and degradation of organics, including the regulated compounds. This remedial technique is typically applied by either direct application to an open excavation, as a curtain wall to intercept migrating plumes and minimize the spread and potential impacts to down gradient sensitive receptors or injected via small diameter well points throughout the plume. This “polishing” technique is typically applied to relatively permeable formations under low level contaminant conditions. This technology fails from a bulk reduction of total contaminant stand point, but succeeds at “polishing” the formation of residual contamination. It also works well in limited access sites or on large plumes because it does not generate any waste byproducts that require special handling and expensive disposition. If applied in a curtain wall formation, it can be used to control the spread of contamination via natural processes. However, this technology has limited effectiveness and is considered a long term solution which can also last for several years or decades if not applied as a compliment to another more effective remedial technology such as excavation/disposal.

2.1.2.5 Natural Attenuation

This technique includes the installation of test points in and around the plume, typically monitoring wells, used to collect samples and monitor the natural degradation of contamination with time. This technique is usually a tertiary treatment technology applied as a post remedial effort and works very effectively as a compliment to oxidation technology discussed above to polish residual groundwater contamination. When used in conjunction with an oxidant application as detailed in section 2.1.2.4 above, the two technologies are collected referred to as “Enhanced Natural Attenuation”. It succeeds from a cost stand point typically being the least expensive solution, however, fails at bulk reductions in contaminant loads and therefore only applicable to low level contaminant conditions. It also fails at plume containment.

2.1.2.6 Engineering and Administrative Controls

These tertiary families of solutions are designed to protect human health from residual contamination that may remain on-site after all other technologies and options have been exhausted. Engineering and administrative controls include but are not limited to environmental easement, confining barriers such as vapor barriers (poly) and access barriers (slab) as well as depressurization systems certified clean top soil layers. This option is not permitted on a Track 1 clean-up program. This application does not necessary constitute a remedial technology is designed solely to meet the "Protection of Human Health" requirements of the Brownfield program.

## 2.2 Remedial Alternatives Evaluated

As required for a proposed Track 4 clean-up as proposed herein, the following sections analyze two remedial alternatives including one that meets Track 1 Clean-up Objectives, including, but not limited to, the soil clean-up criteria provided in 375 6.8(a) and a second that meets the proposed Track 4 Clean-up Objectives including but not limited to, the soil clean-up criteria provided in 375 6.8(b) "Restricted - Commercial Use" Standards to Protect Groundwater.

### 2.2.1 Alternative 1 – Track 1 Remedial Program

*Description*

Alternative 1 includes the application of multiple technologies implemented in an effort to meet conservative Track 1 clean-up objectives and avoid the requirements of engineering and administrative controls that will affect the future valuation of the asset. This alternative does not include an evaluation with respect to budget/assumes no budget constraints.

*Discussion*

This alternative proposes primarily the timely and permanent effect of excavation and containment of accessible contaminated soil at an approved landfill complimented by a pump-and-treat system. Excavation and disposal will proceed concurrently with dewatering via a pump and treat system with the objective of lowering the water table to access contaminated soil in the saturated zone for excavation and containment as well as collect dissolved contamination suspended in the aquifer for surface treatment and disposal to the county owned POTW for final treatment and disposal.

This program includes secondary treatment via the backfilling of the contaminated zone below the static water table with highly permeable crushed stone and the installation of an aeration/vapor extraction system. If end point sampling indicates start-up of the aeration/vacuum extraction system is required to meet SCOs, this system will introduce oxygen into the formation which will accelerate degradation of the organics and extract contaminants stripped from the formation by the aeration process. The extraction plumbing could also be used to thoroughly distribute oxidizer (i.e. ORC, HRC, permanganate, etc.) through the formation, should post remedial monitoring indicate distribution of the product into the open excavation prior to backfilling is required. Finally, the extraction plumbing will also reduce the potential for soil vapor intrusion in future site developments.

Finally the program includes tertiary treatment in the form of "enhanced natural attenuation (ENA)" which will insure oxidizing conditions persist throughout the residual plume which will polish the formation. The ENA will include quarterly monitoring to insure the SCGs applicable to a track 1 program are being attained. This track includes temporary groundwater remedial efforts as permitted by the Brownfield program. This alternative is detailed further below.

#### *2.2.1.1 Dewatering – Pump and Treat*

The excavation work will proceed subsequent to installation and start-up of a network of interconnected 2" monitoring wells installed around the perimeter of the plume. The dewatering will lower the water table and permit excavation of contaminated soil at the heart of the groundwater plume to bedrock can effectively be removed. The dewatering will also permit the removal of contaminated groundwater from the Site for on-site treatment and discharge to the county owned POTW. Finally, dewatering will help contain the plume by slowing its' migration.

#### *2.2.1.2 Excavation and Disposal at a Licensed Landfill*

As required by the program, this phase of the remedial action includes excavating, hauling, and placing all soil contaminated above the following "Unrestricted" Soil Clean-up Objectives (not all inclusive) provided in Table 375 6.8(a).

| **Contaminant** | **Clean-up Objective** |
|---|---|
| PCE - | 1,300 |
| TCE – | 470 |
| cDCE (all) – | 250 |
| tDCE (all) – | 190 |
| VC – | 20 |
| Lead – | 63,000* |
| Chromium – | 30,000 * |

In accordance with the requirements of this AAR, excavation and containment at a landfill provides permanence and the ultimate protection to human health and the environment. Groundwater dewatering and disposition to the POTW provides both permanence and cost effectiveness by collecting and removing the contamination from the Site and disposing it via a permitted water treatment facility at no additional cost.

*Because lead and chromium were identified at concentrations exceeding applicable SCOs during recent soil characterization activities, soil remedial efforts proposed herein will require mitigation of lead and chromium identified to meet the SCO listed.

#### *2.2.1.3 Aeration / Vapor Extraction*

This alternative includes the installation of aeration plumbing beneath the static water table and vacuum plumbing above the static water table that could be used to compliment the oxidation process discussed above, if needed. If end point sampling indicates start-up of the aeration/vapor extraction system is not required, the plumbing can be still be used as an effective means of introducing oxidizer into the formation, if needed.

This alternative presumes the existing structure is demolished as planned in order to access contaminated media beneath the existing structure. Excavation and containment efforts would begin after the existing structure is demolished and prior to construction of a new facility. Tertiary treatment could proceed concurrently with site redevelopment. The plan does not include any engineering controls but does include the application of a 2' thick layer of certified clean top soil in all unpaved landscaped areas to minimize potential access to underlying soils that may remain impacted with residual contaminants in accordance with the program requirements.

Backfill will be suitable for supporting the proposed redevelopment and also provide for the permeability best suitable to aeration/vapor extraction. If there is an existing tank beneath the building, the tank will be removed during the excavation/disposal phase of the process.

The goal is to remove all of the soil above bedrock contaminated above applicable SCGs such that the site can operate unrestricted and without the need of administrative and/or engineering controls while complying with Track 1 objectives of the Brownfield Program.

1. *Overall Protection of Public Health and the Environment.*
   This alternative provides protection of public health and the environment because the bulk of the contaminant load is physically removed from the environment and containerized in a landfill designed to contain, collect and treat leachate before it reenters the environment or transported to a treatment facility for polishing. It includes a 2' layer of certified clean soil across landscaped areas of the site to minimize access to underlying indigenous soils that may remain impacted with residual levels of contamination.
2. *Compliance with Standards, Criteria, and Guidance (SCGs).*
   This alternative provides compliance with SCGs because the contaminant "source" is removed from the environment as required by the program to prevent future spread through the environment.
3. *Long-term Effectiveness and Permanence*
   This alternative provides permanence because it physically removes the bulk of the contaminant load from the Site/environment or breaks it down into unregulated compounds.
4. *Reduction of Toxicity, Mobility or Volume with Treatment.*
   This alternative provides for a reduction of toxicity because the magnitude of the contaminant load is physically reduced by contaminant removal or oxidation into unregulated compounds. It reduces mobility by reversing the flow of groundwater towards the recovery pumps.
5. *Short-term Effectiveness.*
   Excavation and disposal provides the greatest short term effectiveness of all remedial technologies.
6. *Implementability.*
   This alternative is practical only if implemented as part of the redevelopment planned for this Site. If the development plans were to change and the existing structure was to remain, this alternative may become infeasible because the contaminated soil is beneath the building and would require interior excavation activities, resulting in the use of miniature equipment reducing the efficiency of the work and access to contaminated soil beneath buried support structures.
7. *Cost Effectiveness*
   This alternative assumes no budget constraints and is estimated to cost between $400,000 and $500,000 depending on several factors that cannot be determined until the remedial process begins (i.e. quantity of wastes, characteristics of wastes, disposal facilities acceptance, etc.).
8. *Community Acceptance.*
   Because this alternative reestablishes compliance with applicable SCGs and does not require any significant off-site activities other then transportation to and from the Site, it is expected to be accepted by the community. Transportation activities will be managed via well-maintained state roads through predominantly commercial corridors using properly equipped flagman directing trucks into and out of two site gates.

The entire site will be protected from inadvertent access by pedestrians by a semi-permanent construction fence fitted with screening to minimize fugitive dust/odors which will be monitored in accordance with environmental program requirements provided in DER-10. Areas outside operating gates will be swept clean at the end of every work day.

9. *Land Use.*
   This remedial effort should provide for unrestricted land use. Certified clean structural backfill will be provided in accordance with the program requirements. Any exposed soil areas will include the placement of a minimum of 1’ of certified clean top soil as required.

### 2.2.2 Alternative 2 – “Track 4” Remedial Program

Notwithstanding the purpose of the AAR, the Volunteer has already adopted and approved a Remedial Plan that will exceed the objectives of a Track 4 clean-up and includes activities similar to those described in our Track 1 analysis above. As such, the variance between the two remedial programs discussed herein is minimal. To that end, the Volunteer reserves the right to alter this plan mid-stream and increase the level of effort, should during the course of the mitigation process it becomes apparent that Track 1 objectives may be attainable.

The following “Alternative 2” analysis, discusses the same technologies applied above, with the following discrepancies:

1. The application of each proposed effort will likely be limited relative to the Track 1 due to the lower clean-up standards being applied;
2. The work provides for a budget that focuses on capital costs, and only limited expenditures associated with post remedial efforts/monitoring
3. This proposal takes advantage of the Track 4 SCOs from a post remedial stand point and includes no more than 2-3 qtrs of monitoring to show stabilization or reduction in residual contamination (as opposed to increasing concentrations):

*Description*
This alternative includes the application of multiple technologies implemented in an effort to meet Track 4 clean-up objectives with the use of engineering and administrative controls as required to avoid the need of long term groundwater monitoring.

*Discussion*
This alternative proposes primarily the timely and permanent effects of excavation and containment during dewatering via a pump-and-treat system in order to lower the water table and access and remove contaminated soil in the saturated zone. The objective of the dewatering system is further to remove groundwater containing dissolved contamination suspended in the aquifer for surface treatment and disposal via the county owned POTW for final treatment and disposal.

This program includes possible secondary treatment via the backfilling of the contaminated zone with highly permeable crushed stone and the installation of an aeration/vapor extraction system. If end point sampling indicates start-up of the aeration/vacuum extraction system is required, this system will introduce oxygen into the formation which will accelerate degradation of the organics and extract contaminants by stripping them from the aquifer and collecting them for atmospheric discharge via the extraction system. Due to the low levels of VOCs expected no treatment before discharge is anticipated. The extraction plumbing could also be used to thoroughly distribute oxidizer (i.e. ORC, HRC, permanganate, etc.) through the formation, should post remedial monitoring indicate applications of the product in addition to the open excavation application proposed below are required. Finally, the extraction plumbing will also reduce the potential for soil vapor intrusion in future site developments.

This program does not include any extensive tertiary treatment other than 2-3 quarters of monitoring to insure residual contaminant concentrations drop as opposed to rise post remediation. This track includes engineering/administrative controls as permitted by the Brownfield program in order to disregard residual contamination and avoid long term monitoring to protect public human health and the environment. This alternative is detailed further below

#### *2.2.2.1 Dewatering – Pump and Treat*

The excavation work will proceed subsequent to installation and start-up of a network of interconnected 2" monitoring wells installed around the perimeter of the plume. The dewatering will lower the water table and permit excavation of contaminated soil at the heart of the groundwater plume so that all soil above the bedrock contaminated in excess of applicable SCOs can effectively be removed. The dewatering will also permit the removal of contaminated groundwater from the Site for on-site treatment and discharge to the county owned POTW. Finally, dewatering will help contain the plume and slow its' migration.

#### *2.2.2.2 Excavation and Disposal at a Licensed Landfill*

As required by the program, this phase of the remedial action includes excavating, hauling, and placing all soil contaminated above the following "Unrestricted" Soil Clean-up Objectives provided in Table 375 6.8(b).

| | **Clean-up Objective (ppb)** | **Clean-up Objective (ppb)** |
|---|---|---|
| **Contaminant** | **Protection of Health/Env** | **Protection of Groundwater** |
| PCE - | 150,000 | 1,300 |
| TCE – | 200,000 | 470 |
| cDCE (all) – | 500,000 | 11,000 |
| tDCE (all) – | 500,000 | 5,900 |
| VC – | 13,000 | 20 |

In accordance with the requirements of this AAR, excavation and containment at a landfill provides permanence and the ultimate protection to human health and the environment. Groundwater dewatering and disposition to the POTW provides both permanence and cost effectiveness by collecting and removing the contamination from the Site and disposing via a permitted water treatment facility at no additional cost.

*Because lead and chromium were identified at concentrations exceeding applicable SCOs during recent soil characterization activities, soil remedial efforts proposed herein will require mitigation of lead and chromium identified to meet the SCO listed.

#### *2.2.2.3 Aeration / Vapor Extraction*

This alternative includes the installation of aeration plumbing beneath the static water table and vacuum plumbing above the static water table that could be used to compliment the oxidation process discussed above if needed. If end point sampling indicates start-up of the aeration/vapor extraction system is not required, the plumbing can be still be used as an effective means of reintroducing oxidizer into the formation, if needed.

#### *2.2.2.4 Engineering/Administrative Controls – Site Management Plan*

Since the remedy results in contamination above unrestricted levels remaining at the site, a site management plan (SMP) will be developed and implemented. The SMP will include the institutional controls and engineering controls to: (a) address residual contaminated soils that may be excavated from the site during future redevelopment. The plan would require soil characterization and, where applicable, disposal/reuse in accordance with NYSDEC regulations; (b) evaluate the potential for vapor intrusion for any future buildings developed on the site, including provision for mitigation of any impacts identified; (c) provide for the operation and maintenance of the components of the remedy; (d) monitor the groundwater and (e) identify any use restrictions on site development or groundwater use.

The SMP will require the property owner to provide a periodic Institutional Control/Engineering Control (IC/EC) certification, prepared and submitted by a professional engineer or environmental professional acceptable to the Department, which would certify that the institutional controls and engineering controls put in place, are unchanged from the previous certification and nothing has occurred that would impair the ability of the control to protect public health or the environment or constitute a violation or failure to comply with any operation and maintenance or soil management plan.

Imposition of an institutional control in form of an environmental easement that would: (a) require compliance with the approved site management plan, (b) limit the use and development of the property to commercial use; (c) restrict use of groundwater as a source of potable or process water without necessary water quality treatment as determined by the Westchester County Department of Health; and, (d) require the property owner to complete and submit to the NYSDEC a periodic IC/EC certification.

This alternative presumes the existing structure is demolished as planned in order to access contaminated media beneath the existing structure. Excavation and containment efforts would begin after the existing structure is demolished and prior to construction of a new facility. Any tertiary treatment could proceed concurrently with site redevelopment. The plan includes engineering and administrative controls in the form of barriers, depression systems and easements as needed to protect future occupants.

Backfill will be suitable for supporting the proposed redevelopment and also provide for the permeability best suitable to aeration/vapor extraction. If there is an existing tank beneath the building, the tank will be removed during the excavation/disposal phase of the process.

1. *Overall Protection of Public Health and the Environment.*
   This alternative provides protection of public health and the environment because the bulk of the contaminant load is physically removed from the environment and containerized in a landfill. It also includes engineering and administrative controls to protect future occupants from any residual contamination left behind by the remedial process.
2. *Compliance with Standards, Criteria, and Guidance (SCGs).*
   This alternative provides compliance with SCGs because the contaminant "source" is removed from the environment as required by the program to prevent future spread through the environment.
3. *Long-term Effectiveness and Permanence*
   This alternative provides permanence because it physically removes the bulk of the contaminant load from the Site/environment or breaks it down into unregulated compounds.
4. *Reduction of Toxicity, Mobility or Volume with Treatment.*
   This alternative provides for a reduction of toxicity because the magnitude of the contaminant load is physically reduced by contaminant removal or oxidation into unregulated compounds. It reduces mobility by reversing the flow of groundwater towards the recovery pumps.
5. *Short-term Effectiveness.*
   Excavation and disposal provides the greatest short term effectiveness of all remedial technologies.
6. *Implementability.*
   This alternative is practical only if implemented as part of the redevelopment planned for this Site. If the development plans were to change and the existing structure was to remain, this alternative may become infeasible because the contaminated soil is beneath the building and would require interior excavation activities, resulting in the use of miniature equipment reducing the efficiency of the work and access to contaminated soil beneath buried support structures.
7. *Cost Effectiveness*
   This alternative assumes limited remedial efforts and almost no post remedial efforts and therefore a budget between $350,000 and $450,000 depending on several factors that cannot be determined until the remedial process begins (i.e. quantity of wastes, characteristics of wastes, disposal facilities acceptance, etc.).
8. *Community Acceptance.*
   Because this alternative reestablishes compliance with applicable SCGs and does not require any significant off-site activities other then transportation to and from the Site, it is expected to be accepted by the community. Transportation activities will be managed via well-maintained state roads through predominantly commercial corridors using properly equipped flagman directing trucks into and out of two site gates. The entire site will be protected from inadvertent access by pedestrians by a semi-permanent construction fence fitted with screening to minimize fugitive dust/odors which will be monitored in accordance with environmental program requirements provided in DER-10. Areas outside operating gates will be swept clean at the end of every work day.
9. *Land Use.*
   This remedial effort should provide for unrestricted land use. Certified clean structural backfill will be provided in accordance with the program requirements. Any exposed soil areas will include the placement of a minimum of 1' of certified clean top soil as required.

## 3.0 COMPARISON OF ALTERNATIVES / PREFERRED ALTERNATIVE

Alternative 1 proposed a remedial process without budget constraints and is considered the Cadillac of remedial programs. It has the greatest short term effectiveness and permanence and will result in the ultimate protection to human health and the environment because of the physical removal of the contamination to very low levels and either destruction or containment of same at permitted landfills and/or POTWs. This alternative requires post remedial groundwater monitoring as part of enhanced natural attenuation proposed to polish groundwater of residual contamination. Most importantly, this alternative provides the highest potential for meeting Brownfield Track 1 clean-up objectives provided in 375 6.8(a) and is discussed as required by the Brownfield Program. It does not require any engineering or administrative controls and allows for unrestricted site use post remediation. This track leaves the Site unstained as a result of the release as indicted by its "unrestricted use" designation.

Although Alternative 2 is similar in nature to Alternative 1 as it has already been approved by the Volunteer. It is considered a cost effective alternative to Alt 1 as the Volunteer has approved only minimal post remedial efforts. It has similar short term effectiveness and permanence to Alternative 1 and will result in similar protection to human health and the environment because it meets Track 4 – "Restricted-Commercial", "Protection of Groundwater" criteria which is similar if not identical to Track 1 clean-up objectives. It also includes the physical removal of the bulk of the contaminant load and containment of same at permitted landfills and/or POTW, however, it also includes the application of engineering and administrative controls to prevent future access to any residual contamination tat may persist after clean-up is complete. This alternative requires only minimal post remedial groundwater monitoring (i.e. 2-3 quarters) to insure stabilization and/or degradation of residual contaminant (as opposed to increasing concentration indicative of a missed "source" somewhere in the vicinity).

Based on this comparison, the Volunteer as chosen to follow Alternative 2 in order to take advantage of:

1. The costs effective goals of meeting lower SCGs.
2. Bypass any long term operations and maintenance costs associated with long term post remedial polishing/monitoring efforts.

However, the Volunteer reserves the right to revise the remedial plans mid-stream if it is determined during the course of the clean-up that Track 1 objectives will be attainable without much additional effort or cost, thus removing the need for engineering/administrative controls that will devalue to asset.

# APPENDIX E

# Soil Vapor Intrusion Investigation Report

**JADE ENVIRONMENTAL, INC.** jadeenv@alum.rpi.edu
59 Circle Dr., Suite 100, Hopewell Junction, New York 12533 (845) 897-2188 tel. (845) 897-2189 fax

April 12, 2010

Mr. Bob Mehlich
Mehlich Associates.
8 Depot Square
Tuckahoe, New York 10707

**Re: Soil Vapor Survey Report**
**Clinton Terrace Shopping Center, 74-82 Croton Avenue, Ossining, New York 10562-4201**
**NYSDEC SPILL No.: 08-08577, BCP No: C360110**

Dear Bob:

Jade Environmental, Inc. is pleased to provide the following data collected during our recent soil gas survey at the above referenced site. The testing was conducted on behalf of the NYSDEC in accordance with the requirements of the sites Brownsfield application.

## Field Work

Over the course of three days February 17, 18 and 19 Jade investigated, installed vapor collection points and collected the following air samples:

- Soil vapor – basement Morra dwelling (24 hour)
- Indoor air – basement Morra dwelling (24 hour)
- Outdoor Ambient - outside Morra (2 hour)
- Soil Vapor – Parking lot Clinton Terrace Shopping Center (2 hour)
- Soil Vapor – Parking lot Clinton Terrace Shopping Center (2 hour)

### *Day 1 – Inspection/Interior Sample Point Construction*

The work was initiated with an inspection of the basement of the Morra Residence, the only adjacent property tested. The inspection did not identify any chemicals or other materials suspected to be emitting any chemicals that could bias the sample results other than a half dozen one gallon paint cans. The cans appeared to be tightly sealed. According to Ms Morra, she really only goes into the basement to do laundry.

The soil vapor collection probe in the Morra basement was installed by coring through the basement floor slab and then advancing a LargeBore Sampler through the formation to a depth of 6’. After the probe was removed, a stainless steel vapor sample screen connected to polyethylene tubing was dropped into the open bore hole and the annulus filled with #2 filter sand. At grade a three inch (same as floor slab) hydrated bentonite plug was compacted in one inch lifts. After construction, the poly tubing was connected to the tip of a photo-ionization detector and the sample point was purged of existing air/vapor. After purging, the tubing was plugged and the bore hole allowed to stabilize.

### *Day 2 – Start 24 Sampling Morra Residence*

On the second day, the cap was removed from the poly tubing and the Summa canister connected as instructed by the lab. The canister was opened and allowed to begin drawing sample. After that connection, a second Summa canister was set on a basement table and it too was opened. Opening times and environmental conditions were noted. Because of concerns with leaving the remaining samplers unsecured outdoors overnight, Jade returned to the lab and had the remaining sampler regulators changed from 24 hour to 2 hour.

*Day 3 – Install Exterior Vapor Probes/ Complete Sampling*
The two final sample points were installed the morning of the third day along the down gradient border of the property by mechanically advancing a MacroCore sampler through the formation to a depth of 8' below grade. Again, after retrieving the tooling, a stainless steel vapor sampler connected to polyethylene tubing was dropped to within a few inches of the bottom of the boring and the annulus filled to grade with #2 silica sand. Again the surface was sealed with hydrated bentonite compacted one inch at a time to insure a tight seal and the probe hole purged with a PID for several minutes.

After completing these sample points, 2 hr Summa canisters were connected to both test probes and opened. Additionally, the ambient air sample was collected by placing the summa canister on the ground in front of the Morra house and opened. After all three test points were opened, Jade returned to the basement of the Morra residence and closed the indoor air summa canister and flooded the soil vapor test canister with helium. After flooding the probe and canister and helium for 5 minutes, the canister was closed. Both canisters were labeled as to their location and test duration and placed in a large cooler. Two hours after opening, Jade returned closed the ambient air canister and labeled and placed it too in the cooler. Finally about ten minutes before closing the final two canisters, Jade flooded the area around both canisters and probe holes with helium. The test probes remain on-site for resampling, if needed.

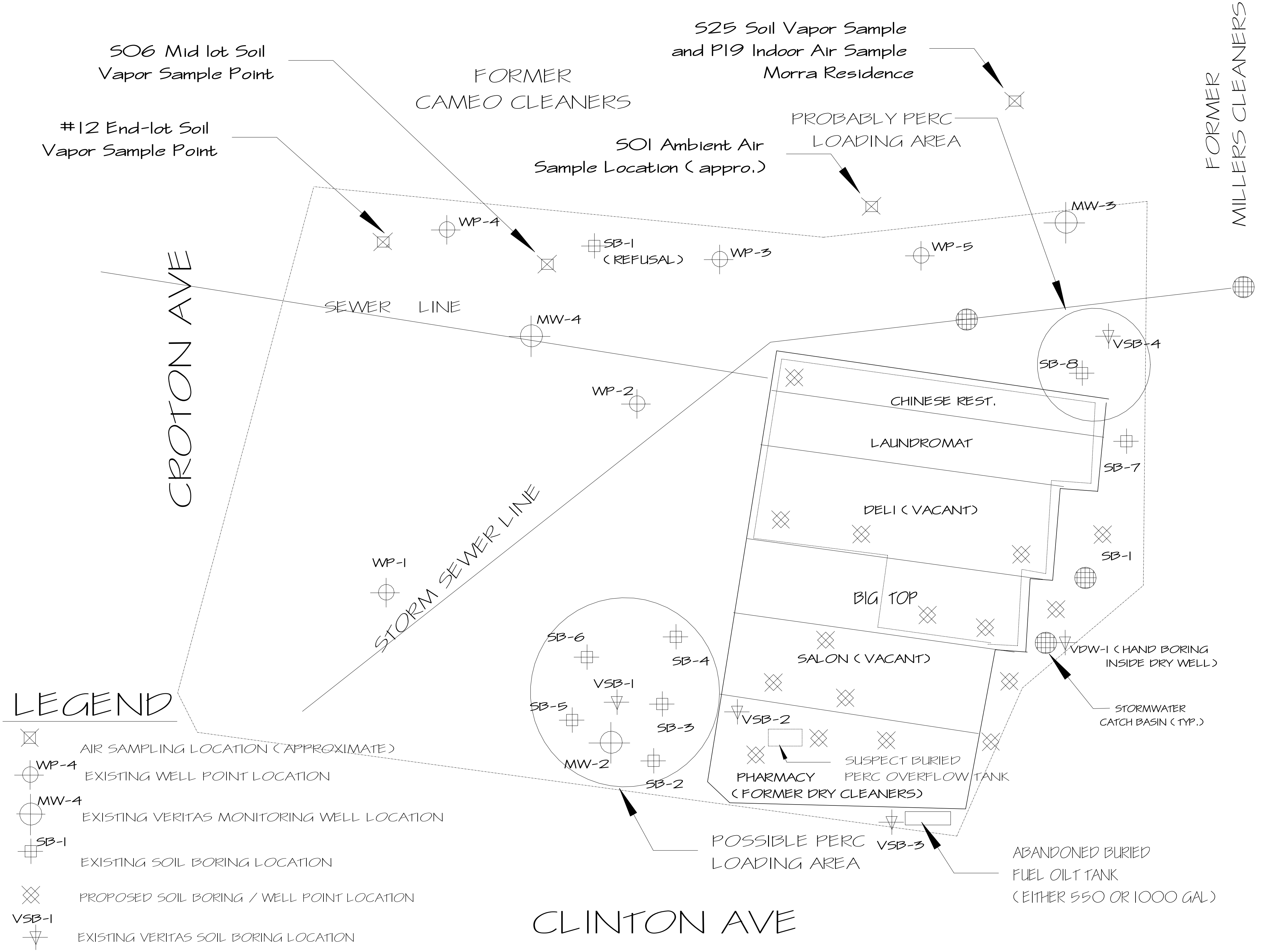
All five canisters were labeled and shipped same day to York Analytical lab for whole analysis via TO-15. The results of the analysis are appended hereto. As the testing was done on behalf of the New York State Department of Environmental Conservation at the request of the New York State Department of Health, no data evaluation is provided. However, based on our review of the data it does not appear the testing was compromised as a result of seal failure (i.e. helium detected in analysis) and the trace concentrations of volatiles identified do not appear to require any further investigation or mitigation.

Its been a pleasure working with you on this project and as always, if you have any questions, please do not hesitate to call.

Sincerely,

Jade Environmental, Inc.

Dave Pelletier, P. E.
Project Engineer


S25 Soil Vapor Sample
and P19 Indoor Air Sample
Morra Residence
S06 Mid lot Soil
Vapor Sample Point
FORMER
CAMEO CLEANERS
FORMER
MILLERS CLEANERS
#12 End-lot Soil
Vapor Sample Point
PROBABLY PERC
LOADING AREA
S01 Ambient Air
Sample Location ( appro.)
MW-3
WP-4
SB-1
( REFUSAL )
WP-3
WP-5
CROTON AVE
SEWER LINE
MW-4
VSB-4
SB-8
WP-2
CHINESE REST.
LAUNDROMAT
SB-7
DELI ( VACANT)
SB-1
STORM SEWER LINE
WP-1
BIG TOP
SB-6
SB-4
VSB-1
SALON ( VACANT)
VDW-1 ( HAND BORING
INSIDE DRY WELL)
STORMWATER
CATCH BASIN ( TYP.)
SB-5
SB-3
VSB-2
MW-2
SB-2
SUSPECT BURIED
PERC OVERFLOW TANK
PHARMACY
( FORMER DRY CLEANERS)
VSB-3
POSSIBLE PERC
LOADING AREA
ABANDONED BURIED
FUEL OILT TANK
( EITHER 550 OR 1000 GAL)
CLINTON AVE
LEGEND
AIR SAMPLING LOCATION ( APPROXIMATE)
WP-4
EXISTING WELL POINT LOCATION
MW-4
EXISTING VERITAS MONITORING WELL LOCATION
SB-1
EXISTING SOIL BORING LOCATION
PROPOSED SOIL BORING / WELL POINT LOCATION
VSB-1
EXISTING VERITAS SOIL BORING LOCATION

YORK
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for:

**Jade Environmental, Inc.**
59 Circle Drive
Hopewell Junction NY, 12533
**Attention: Mr. Dave Pelletier**

Report Date: 03/15/2010
**Client Project ID: 80 Croton Ave**
York Project (SDG) No.: 10C0296

CT License No. PH-0723 New Jersey License No. CT-005 New York License No. 10854 PA Reg. 68-04440

Report Date: 03/15/2010
Client Project ID: 80 Croton Ave
York Project (SDG) No.: 10C0296

**Jade Environmental, Inc.**
59 Circle Drive
Hopewell Junction NY, 12533
Attention: Mr. Dave Pelletier

---

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on March 08, 2010 and listed below. The project was identified as your project **80 Croton Ave**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

| York Sample ID | Client Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| 10C0296-01 | S01 Palmer | Air | 03/04/2010 | 03/08/2010 |
| 10C0296-02 | S25 MORRA | Air | 03/04/2010 | 03/08/2010 |
| 10C0296-03 | P-19 MORRA | Air | 03/05/2010 | 03/08/2010 |
| 10C0296-04 | S06 MID LOT | Air | 03/05/2010 | 03/08/2010 |
| 10C0296-05 | #12 END LOT | Air | 03/05/2010 | 03/08/2010 |

# Notes for York Project (SDG) No.: 10C0296

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Notes section for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.

**Approved By:** Robert Q. Bradley **Date:** 03/15/2010

Robert Q. Bradley
Managing Director

YORK

Sample ID: **S01 Palmer** Sampled: 03/04/2010

York ID: **10C0296-01 (Air)**

## Volatile Organic Compounds by EPA Compendium TO14A/TO15

| | ppbv | | | | ug/m$^3$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| 1,1,1-Trichloroethane | ND | 0.82 | 0.4 | ppbv | ND | 4.6 | 2.4 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,1,2,2-Tetrachloroethane | ND | 0.82 | 0.4 | ppbv | ND | 5.8 | 2.6 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.82 | 0.4 | ppbv | ND | 6.4 | 3.2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,1,2-Trichloroethane | ND | 0.82 | 0.5 | ppbv | ND | 4.6 | 2.6 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,1,2-Trichlorotrifluoroethane (Freon 11) | ND | 0.82 | 0.4 | ppbv | ND | 6.4 | 3.2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,1-Dichloroethane | ND | 0.82 | 0.4 | ppbv | ND | 3.4 | 1.6 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,1-Dichloroethylene | ND | 0.82 | 0.3 | ppbv | ND | 3.3 | 1.1 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,2,4-Trichlorobenzene | ND | 0.82 | 0.3 | ppbv | ND | 6.2 | 2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,2,4-Trimethylbenzene | ND | 0.82 | 0.5 | ppbv | ND | 4.1 | 2.3 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,2-Dichlorobenzene | ND | 0.82 | 0.3 | ppbv | ND | 5 | 2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,2-Dichloroethane | ND | 0.82 | 0.3 | ppbv | ND | 3.4 | 1.2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,2-Dichloropropane | ND | 0.82 | 0.6 | ppbv | ND | 3.9 | 2.9 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,2-Dichlorotetrafluoroethane | ND | 0.82 | 0.4 | ppbv | ND | 5.9 | 3.2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,3,5-Trimethylbenzene | ND | 0.82 | 0.4 | ppbv | ND | 4.1 | 1.9 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,3-Butadiene | ND | 0.82 | 0.7 | ppbv | ND | 3.6 | 3.1 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,3-Dichlorobenzene | ND | 0.82 | 0.4 | ppbv | ND | 5 | 2.3 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,4-Dichlorobenzene | ND | 0.82 | 0.6 | ppbv | ND | 5 | 3.4 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 1,4-Dioxane | ND | 3.3 | 1.5 | ppbv | ND | 12 | 5.6 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| **2,2,4-Trimethylpentane** | **0.51** | 0.82 | 0.3 | ppbv | **2.4** | 3.9 | 1.6 | ug/m$^3$ | 1.65 | **J** | 03/11/2010 | TD |
| 2-Butanone | ND | 0.82 | 0.4 | ppbv | ND | 2.5 | 1.2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 2-Chloro-1,3-Butadiene | ND | 0.82 | 0.5 | ppbv | ND | 0 | 0 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 2-Hexanone | ND | 1.6 | 0.8 | ppbv | ND | 6.9 | 3.5 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| 3-Chloropropene | ND | 0.82 | 0.2 | ppbv | ND | 2.6 | 0.58 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| **Acetone** | **5.7** | 0.82 | 0.3 | ppbv | **14** | 2 | 0.84 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Benzene | ND | 0.82 | 0.6 | ppbv | ND | 2.7 | 2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Benzyl chloride | ND | 1.6 | 0.7 | ppbv | ND | 8.7 | 3.8 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Bromodichloromethane | ND | 0.82 | 0.3 | ppbv | ND | 5.2 | 1.9 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Bromoform | ND | 0.82 | 0.4 | ppbv | ND | 8.7 | 3.8 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Bromomethane | ND | 0.82 | 0.4 | ppbv | ND | 3.3 | 1.6 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Carbon disulfide | ND | 0.82 | 0.2 | ppbv | ND | 2.6 | 0.57 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Carbon tetrachloride | ND | 0.82 | 0.3 | ppbv | ND | 5.3 | 2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Chlorobenzene | ND | 0.82 | 0.5 | ppbv | ND | 3.9 | 2.5 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Chloroethane | ND | 0.82 | 0.8 | ppbv | ND | 2.2 | 2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Chloroform | ND | 0.82 | 0.3 | ppbv | ND | 4.1 | 1.7 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Chloromethane | ND | 0.82 | 0.5 | ppbv | ND | 1.7 | 1 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| cis-1,2-Dichloroethylene | ND | 0.82 | 0.4 | ppbv | ND | 3.3 | 1.7 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| cis-1,3-Dichloropropylene | ND | 0.82 | 0.4 | ppbv | ND | 3.8 | 2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Cyclohexane | ND | 0.82 | 0.3 | ppbv | ND | 2.9 | 1 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Ethyl acetate | ND | 0.82 | 0.4 | ppbv | ND | 3 | 1.3 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| **Ethyl Benzene** | **0.76** | 0.82 | 0.5 | ppbv | **3.4** | 3.6 | 2.2 | ug/m$^3$ | 1.65 | **J** | 03/11/2010 | TD |
| Hexachlorobutadiene | ND | 0.82 | 0.5 | ppbv | ND | 8.9 | 5 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Isopropanol | ND | 1.6 | 0.8 | ppbv | ND | 4.1 | 1.9 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Methyl isobutyl ketone | ND | 1.6 | 0.8 | ppbv | ND | 6.9 | 3.4 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Methyl tert-butyl ether (MTBE) | ND | 0.82 | 0.4 | ppbv | ND | 3 | 1.5 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| **Methylene chloride** | **2.5** | 0.82 | 0.5 | ppbv | **8.7** | 2.9 | 1.8 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| **n-Heptane** | **0.50** | 0.82 | 0.3 | ppbv | **2.1** | 3.4 | 1.4 | ug/m$^3$ | 1.65 | **J** | 03/11/2010 | TD |
| **n-Hexane** | **0.56** | 0.82 | 0.5 | ppbv | **2** | 3 | 1.9 | ug/m$^3$ | 1.65 | **J** | 03/11/2010 | TD |

Sample ID: **S01 Palmer** Sampled: 03/04/2010

York ID: **10C0296-01 (Air)**

### Volatile Organic Compounds by EPA Compendium TO14A/TO15

| | ppbv | | | | ug/m$^3$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| **o-Xylene** | **0.64** | 0.82 | 0.6 | ppbv | **2.8** | 3.6 | 2.6 | ug/m$^3$ | 1.65 | **J** | 03/11/2010 | TD |
| **p- & m- Xylenes** | **2.0** | 1.6 | 1.3 | ppbv | **9** | 7.3 | 5.8 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| p-Ethyltoluene | ND | 0.82 | 0.1 | ppbv | ND | 4.1 | 0.74 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Propylene | ND | 1.6 | 1.0 | ppbv | ND | 2.9 | 1.8 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Styrene | ND | 0.82 | 0.5 | ppbv | ND | 3.6 | 2.1 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Tetrachloroethylene | ND | 0.82 | 0.3 | ppbv | ND | 5.7 | 2.4 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Tetrahydrofuran | ND | 1.6 | 0.7 | ppbv | ND | 4.9 | 2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| **Toluene** | **2.6** | 0.82 | 0.4 | ppbv | **10** | 3.2 | 1.7 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| trans-1,2-Dichloroethylene | ND | 0.82 | 0.5 | ppbv | ND | 3.3 | 2.1 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| trans-1,3-Dichloropropylene | ND | 0.82 | 0.2 | ppbv | ND | 3.8 | 1.1 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Trichloroethylene | ND | 0.82 | 0.4 | ppbv | ND | 4.5 | 2.2 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Vinyl acetate | ND | 0.82 | 0.2 | ppbv | ND | 3 | 0.77 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Vinyl bromide | ND | 0.82 | 0.4 | ppbv | ND | 3.7 | 1.6 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| Vinyl Chloride | ND | 0.82 | 0.5 | ppbv | ND | 2.1 | 1.4 | ug/m$^3$ | 1.65 | | 03/11/2010 | TD |
| *Surrogate Recovery* | *Result* | *Acceptance Range* | | | | | | | | | | |
| *Surrogate: p-Bromofluorobenzene* | *101 %* | *70-130* | | | | | | | | | *03/11/2010* | TD |

| | ppbv | | | | ug/m$^3$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| Helium | ND | 0.50 | 0.5 | % | ND | 0 | 0 | ug/m$^3$ | 1 | | 03/11/2010 | JW |

Sample ID: **S25 MORRA** Sampled: 03/04/2010

York ID: **10C0296-02 (Air)**

### Volatile Organic Compounds by EPA Compendium TO14A/TO15

| | ppbv | | | | ug/m$^3$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| 1,1,1-Trichloroethane | ND | 0.90 | 0.5 | ppbv | ND | 5 | 2.6 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,1,2,2-Tetrachloroethane | ND | 0.90 | 0.4 | ppbv | ND | 6.2 | 2.9 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.90 | 0.4 | ppbv | ND | 7 | 3.5 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,1,2-Trichloroethane | ND | 0.90 | 0.5 | ppbv | ND | 5 | 2.8 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,1,2-Trichlorotrifluoroethane (Freon 11) | ND | 0.90 | 0.4 | ppbv | ND | 7 | 3.5 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,1-Dichloroethane | ND | 0.90 | 0.4 | ppbv | ND | 3.7 | 1.8 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,1-Dichloroethylene | ND | 0.90 | 0.3 | ppbv | ND | 3.6 | 1.2 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,2,4-Trichlorobenzene | ND | 0.90 | 0.3 | ppbv | ND | 6.8 | 2.2 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,2,4-Trimethylbenzene | ND | 0.90 | 0.5 | ppbv | ND | 4.5 | 2.5 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,2-Dichlorobenzene | ND | 0.90 | 0.4 | ppbv | ND | 5.5 | 2.2 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,2-Dichloroethane | ND | 0.90 | 0.3 | ppbv | ND | 3.7 | 1.3 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,2-Dichloropropane | ND | 0.90 | 0.7 | ppbv | ND | 4.2 | 3.1 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,2-Dichlorotetrafluoroethane | ND | 0.90 | 0.5 | ppbv | ND | 6.4 | 3.4 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,3,5-Trimethylbenzene | ND | 0.90 | 0.4 | ppbv | ND | 4.5 | 2.1 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,3-Butadiene | ND | 0.90 | 0.8 | ppbv | ND | 3.9 | 3.3 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,3-Dichlorobenzene | ND | 0.90 | 0.4 | ppbv | ND | 5.5 | 2.5 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,4-Dichlorobenzene | ND | 0.90 | 0.6 | ppbv | ND | 5.5 | 3.7 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 1,4-Dioxane | ND | 3.6 | 1.6 | ppbv | ND | 13 | 6 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 2,2,4-Trimethylpentane | ND | 0.90 | 0.4 | ppbv | ND | 4.3 | 1.7 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |
| 2-Butanone | ND | 0.90 | 0.4 | ppbv | ND | 2.7 | 1.3 | ug/m$^3$ | 1.79 | | 03/11/2010 | TD |

Sample ID: **S25 MORRA** Sampled: 03/04/2010

York ID: **10C0296-02 (Air)**

### Volatile Organic Compounds by EPA Compendium TO14A/TO15

| | ppbv | | | | ug/m³ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| 2-Chloro-1,3-Butadiene | ND | 0.90 | 0.6 | ppbv | ND | 0 | 0 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| 2-Hexanone | ND | 1.8 | 0.9 | ppbv | ND | 7.5 | 3.8 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| 3-Chloropropene | ND | 0.90 | 0.2 | ppbv | ND | 2.8 | 0.63 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| **Acetone** | **2.9** | 0.90 | 0.4 | ppbv | **7.1** | 2.2 | 0.91 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Benzene | ND | 0.90 | 0.7 | ppbv | ND | 2.9 | 2.2 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Benzyl chloride | ND | 1.8 | 0.8 | ppbv | ND | 9.4 | 4.1 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Bromodichloromethane | ND | 0.90 | 0.3 | ppbv | ND | 5.7 | 2 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Bromoform | ND | 0.90 | 0.4 | ppbv | ND | 9.4 | 4.1 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Bromomethane | ND | 0.90 | 0.4 | ppbv | ND | 3.5 | 1.8 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Carbon disulfide | ND | 0.90 | 0.2 | ppbv | ND | 2.8 | 0.62 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Carbon tetrachloride | ND | 0.90 | 0.3 | ppbv | ND | 5.7 | 2.2 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Chlorobenzene | ND | 0.90 | 0.6 | ppbv | ND | 4.2 | 2.8 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Chloroethane | ND | 0.90 | 0.8 | ppbv | ND | 2.4 | 2.2 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Chloroform | ND | 0.90 | 0.4 | ppbv | ND | 4.4 | 1.9 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Chloromethane | ND | 0.90 | 0.5 | ppbv | ND | 1.9 | 1.1 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| cis-1,2-Dichloroethylene | ND | 0.90 | 0.4 | ppbv | ND | 3.6 | 1.8 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| cis-1,3-Dichloropropylene | ND | 0.90 | 0.5 | ppbv | ND | 4.1 | 2.1 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Cyclohexane | ND | 0.90 | 0.3 | ppbv | ND | 3.1 | 1.1 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Ethyl acetate | ND | 0.90 | 0.4 | ppbv | ND | 3.3 | 1.4 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Ethyl Benzene | ND | 0.90 | 0.5 | ppbv | ND | 4 | 2.4 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Hexachlorobutadiene | ND | 0.90 | 0.5 | ppbv | ND | 9.7 | 5.4 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Isopropanol | ND | 1.8 | 0.8 | ppbv | ND | 4.5 | 2.1 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Methyl isobutyl ketone | ND | 1.8 | 0.9 | ppbv | ND | 7.5 | 3.7 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Methyl tert-butyl ether (MTBE) | ND | 0.90 | 0.4 | ppbv | ND | 3.3 | 1.6 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Methylene chloride | ND | 0.90 | 0.6 | ppbv | ND | 3.2 | 2 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| n-Heptane | ND | 0.90 | 0.4 | ppbv | ND | 3.7 | 1.5 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| n-Hexane | ND | 0.90 | 0.6 | ppbv | ND | 3.2 | 2.1 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| o-Xylene | ND | 0.90 | 0.6 | ppbv | ND | 4 | 2.8 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| p- & m- Xylenes | ND | 1.8 | 1.4 | ppbv | 6.4 | 7.9 | 6.2 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| p-Ethyltoluene | ND | 0.90 | 0.2 | ppbv | ND | 4.5 | 0.81 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Propylene | ND | 1.8 | 1.1 | ppbv | ND | 3.1 | 2 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Styrene | ND | 0.90 | 0.5 | ppbv | ND | 3.9 | 2.2 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Tetrachloroethylene | ND | 0.90 | 0.4 | ppbv | ND | 6.2 | 2.6 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Tetrahydrofuran | ND | 1.8 | 0.7 | ppbv | ND | 5.4 | 2.2 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| **Toluene** | **0.61** | 0.90 | 0.5 | ppbv | **2.3** | 3.4 | 1.9 | ug/m³ | 1.79 | **J** | 03/11/2010 | TD |
| trans-1,2-Dichloroethylene | ND | 0.90 | 0.6 | ppbv | ND | 3.6 | 2.3 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| trans-1,3-Dichloropropylene | ND | 0.90 | 0.3 | ppbv | ND | 4.1 | 1.2 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Trichloroethylene | ND | 0.90 | 0.4 | ppbv | ND | 4.9 | 2.3 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Vinyl acetate | ND | 0.90 | 0.2 | ppbv | ND | 3.2 | 0.83 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Vinyl bromide | ND | 0.90 | 0.4 | ppbv | ND | 4 | 1.8 | ug/m³ | 1.79 | | 03/11/2010 | TD |
| Vinyl Chloride | ND | 0.90 | 0.6 | ppbv | ND | 2.3 | 1.5 | ug/m³ | 1.79 | | 03/11/2010 | TD |

| *Surrogate Recovery* | *Result* | *Acceptance Range* | | |
|---|---|---|---|---|
| *Surrogate: p-Bromofluorobenzene* | *103 %* | *70-130* | *03/11/2010* | TD |

Sample ID: **S25 MORRA** Sampled: 03/04/2010

York ID: **10C0296-02 (Air)**

### Gas Chromatography/Thermal Conductivity Determination

| | ppbv | | | | ug/m$^3$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| Helium | ND | 0.50 | 0.5 | % | ND | 0 | 0 | ug/m$^3$ | 1 | | 03/11/2010 | JW |

Sample ID: **P-19 MORRA** Sampled: 03/05/2010

York ID: **10C0296-03 (Air)**

### Volatile Organic Compounds by EPA Compendium TO14A/TO15

| | ppbv | | | | ug/m$^3$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| 1,1,1-Trichloroethane | ND | 1.2 | 0.6 | ppbv | ND | 6.4 | 3.3 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,1,2,2-Tetrachloroethane | ND | 1.2 | 0.5 | ppbv | ND | 8.1 | 3.7 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 1.2 | 0.6 | ppbv | ND | 9 | 4.5 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,1,2-Trichloroethane | ND | 1.2 | 0.6 | ppbv | ND | 6.4 | 3.6 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,1,2-Trichlorotrifluoroethane (Freon 11) | ND | 1.2 | 0.6 | ppbv | ND | 9 | 4.5 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,1-Dichloroethane | ND | 1.2 | 0.6 | ppbv | ND | 4.8 | 2.3 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,1-Dichloroethylene | ND | 1.2 | 0.4 | ppbv | ND | 4.7 | 1.6 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,2,4-Trichlorobenzene | ND | 1.2 | 0.4 | ppbv | ND | 8.7 | 2.8 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **1,2,4-Trimethylbenzene** | **3.6** | 1.2 | 0.6 | ppbv | **18** | 5.8 | 3.2 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,2-Dichlorobenzene | ND | 1.2 | 0.5 | ppbv | ND | 7.1 | 2.8 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,2-Dichloroethane | ND | 1.2 | 0.4 | ppbv | ND | 4.8 | 1.7 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,2-Dichloropropane | ND | 1.2 | 0.9 | ppbv | ND | 5.4 | 4 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,2-Dichlorotetrafluoroethane | ND | 1.2 | 0.6 | ppbv | ND | 8.2 | 4.4 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **1,3,5-Trimethylbenzene** | **0.88** | 1.2 | 0.5 | ppbv | **4.4** | 5.8 | 2.7 | ug/m$^3$ | 2.31 | **J** | 03/12/2010 | TD |
| 1,3-Butadiene | ND | 1.2 | 1.0 | ppbv | ND | 5.1 | 4.3 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,3-Dichlorobenzene | ND | 1.2 | 0.5 | ppbv | ND | 7.1 | 3.2 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,4-Dichlorobenzene | ND | 1.2 | 0.8 | ppbv | ND | 7.1 | 4.8 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 1,4-Dioxane | ND | 4.6 | 2.1 | ppbv | ND | 17 | 7.8 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 2,2,4-Trimethylpentane | ND | 1.2 | 0.5 | ppbv | ND | 5.5 | 2.2 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 2-Butanone | ND | 1.2 | 0.6 | ppbv | ND | 3.5 | 1.7 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 2-Chloro-1,3-Butadiene | ND | 1.2 | 0.7 | ppbv | ND | 0 | 0 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| 2-Hexanone | ND | 2.3 | 1.2 | ppbv | ND | 9.6 | 4.9 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **3-Chloropropene** | **1.5** | 1.2 | 0.3 | ppbv | **4.9** | 3.7 | 0.81 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Acetone | ND | 1.2 | 0.5 | ppbv | ND | 2.8 | 1.2 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **Benzene** | **3.0** | 1.2 | 0.9 | ppbv | **9.7** | 3.8 | 2.8 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Benzyl chloride | ND | 2.3 | 1.0 | ppbv | ND | 12 | 5.4 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Bromodichloromethane | ND | 1.2 | 0.4 | ppbv | ND | 7.3 | 2.6 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Bromoform | ND | 1.2 | 0.5 | ppbv | ND | 12 | 5.3 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Bromomethane | ND | 1.2 | 0.6 | ppbv | ND | 4.6 | 2.3 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **Carbon disulfide** | **2.5** | 1.2 | 0.3 | ppbv | **8** | 3.7 | 0.8 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Carbon tetrachloride | ND | 1.2 | 0.4 | ppbv | ND | 7.4 | 2.8 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Chlorobenzene | ND | 1.2 | 0.8 | ppbv | ND | 5.4 | 3.6 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Chloroethane | ND | 1.2 | 1.1 | ppbv | ND | 3.1 | 2.9 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Chloroform | ND | 1.2 | 0.5 | ppbv | ND | 5.7 | 2.4 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Chloromethane | ND | 1.2 | 0.7 | ppbv | ND | 2.4 | 1.4 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| cis-1,2-Dichloroethylene | ND | 1.2 | 0.6 | ppbv | ND | 4.7 | 2.3 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| cis-1,3-Dichloropropylene | ND | 1.2 | 0.6 | ppbv | ND | 5.3 | 2.8 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Cyclohexane | ND | 1.2 | 0.4 | ppbv | ND | 4 | 1.5 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |

Sample ID: **P-19 MORRA** Sampled: 03/05/2010

York ID: **10C0296-03 (Air)**

### Volatile Organic Compounds by EPA Compendium TO14A/TO15

| | ppbv | | | | ug/m$^3$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| Ethyl acetate | ND | 1.2 | 0.5 | ppbv | ND | 4.2 | 1.9 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **Ethyl Benzene** | **4.9** | 1.2 | 0.7 | ppbv | **22** | 5.1 | 3.1 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Hexachlorobutadiene | ND | 1.2 | 0.6 | ppbv | ND | 13 | 7 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Isopropanol | ND | 2.3 | 1.1 | ppbv | ND | 5.8 | 2.7 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **Methyl isobutyl ketone** | **2.0** | 2.3 | 1.2 | ppbv | **8.3** | 9.6 | 4.8 | ug/m$^3$ | 2.31 | **J** | 03/12/2010 | TD |
| Methyl tert-butyl ether (MTBE) | ND | 1.2 | 0.6 | ppbv | ND | 4.2 | 2.1 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **Methylene chloride** | **4.7** | 1.2 | 0.7 | ppbv | **17** | 4.1 | 2.5 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **n-Heptane** | **1.4** | 1.2 | 0.5 | ppbv | **6** | 4.8 | 1.9 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **n-Hexane** | **5.8** | 1.2 | 0.7 | ppbv | **21** | 4.1 | 2.6 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **o-Xylene** | **3.7** | 1.2 | 0.8 | ppbv | **17** | 5.1 | 3.6 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **p- & m- Xylenes** | **19** | 2.3 | 1.8 | ppbv | **84** | 10 | 8.1 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **p-Ethyltoluene** | **4.3** | 1.2 | 0.2 | ppbv | **22** | 5.8 | 1 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Propylene | ND | 2.3 | 1.5 | ppbv | ND | 4 | 2.5 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Styrene | ND | 1.2 | 0.7 | ppbv | ND | 5 | 2.9 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **Tetrachloroethylene** | **8.1** | 1.2 | 0.5 | ppbv | **56** | 8 | 3.3 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Tetrahydrofuran | ND | 2.3 | 0.9 | ppbv | ND | 6.9 | 2.8 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| **Toluene** | **44** | 1.2 | 0.6 | ppbv | **170** | 4.4 | 2.4 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| trans-1,2-Dichloroethylene | ND | 1.2 | 0.7 | ppbv | ND | 4.7 | 3 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| trans-1,3-Dichloropropylene | ND | 1.2 | 0.3 | ppbv | ND | 5.3 | 1.6 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Trichloroethylene | ND | 1.2 | 0.6 | ppbv | ND | 6.3 | 3 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Vinyl acetate | ND | 1.2 | 0.3 | ppbv | ND | 4.1 | 1.1 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Vinyl bromide | ND | 1.2 | 0.5 | ppbv | ND | 5.1 | 2.3 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |
| Vinyl Chloride | ND | 1.2 | 0.8 | ppbv | ND | 3 | 2 | ug/m$^3$ | 2.31 | | 03/12/2010 | TD |

| *Surrogate Recovery* | *Result* | *Acceptance Range* | | |
|---|---|---|---|---|
| *Surrogate: p-Bromofluorobenzene* | *110 %* | *70-130* | *03/12/2010* | TD |

Sample ID: **P-19 MORRA** Sampled: 03/05/2010

York ID: **10C0296-03 (Air)**

### Gas Chromatography/Thermal Conductivity Determination

| | ppbv | | | | ug/m³ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| Helium | ND | 0.50 | 0.5 | % | ND | 0 | 0 | ug/m³ | 1 | | 03/11/2010 | JW |

Sample ID: **S06 MID LOT** Sampled: 03/05/2010

York ID: **10C0296-04 (Air)**

### Volatile Organic Compounds by EPA Compendium TO14A/TO15

| | ppbv | | | | ug/m³ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| 1,1,1-Trichloroethane | ND | 5.6 | 2.9 | ppbv | ND | 31 | 16 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,1,2,2-Tetrachloroethane | ND | 5.6 | 2.6 | ppbv | ND | 39 | 18 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 5.6 | 2.8 | ppbv | ND | 44 | 22 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,1,2-Trichloroethane | ND | 5.6 | 3.1 | ppbv | ND | 31 | 17 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,1,2-Trichlorotrifluoroethane (Freon 11) | ND | 5.6 | 2.8 | ppbv | ND | 44 | 22 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,1-Dichloroethane | ND | 5.6 | 2.7 | ppbv | ND | 23 | 11 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,1-Dichloroethylene | ND | 5.6 | 1.9 | ppbv | ND | 23 | 7.7 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,2,4-Trichlorobenzene | ND | 5.6 | 1.8 | ppbv | ND | 42 | 14 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **1,2,4-Trimethylbenzene** | **3.9** | 5.6 | 3.1 | ppbv | **20** | 28 | 16 | ug/m³ | 11.2 | **J** | 03/11/2010 | TD |
| 1,2-Dichlorobenzene | ND | 5.6 | 2.2 | ppbv | ND | 34 | 14 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,2-Dichloroethane | ND | 5.6 | 2.0 | ppbv | ND | 23 | 8.3 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,2-Dichloropropane | ND | 5.6 | 4.1 | ppbv | ND | 26 | 19 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,2-Dichlorotetrafluoroethane | ND | 5.6 | 3.0 | ppbv | ND | 40 | 22 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,3,5-Trimethylbenzene | ND | 5.6 | 2.6 | ppbv | 13 | 28 | 13 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,3-Butadiene | ND | 5.6 | 4.7 | ppbv | ND | 25 | 21 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,3-Dichlorobenzene | ND | 5.6 | 2.6 | ppbv | ND | 34 | 16 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,4-Dichlorobenzene | ND | 5.6 | 3.8 | ppbv | ND | 34 | 23 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 1,4-Dioxane | ND | 22 | 10.3 | ppbv | ND | 82 | 38 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **2,2,4-Trimethylpentane** | **7.8** | 5.6 | 2.2 | ppbv | **37** | 27 | 11 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **2-Butanone** | **32** | 5.6 | 2.7 | ppbv | **95** | 17 | 8.1 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 2-Chloro-1,3-Butadiene | ND | 5.6 | 3.5 | ppbv | ND | 0 | 0 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **2-Hexanone** | **24** | 11 | 5.7 | ppbv | **99** | 47 | 24 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| 3-Chloropropene | ND | 5.6 | 1.2 | ppbv | ND | 18 | 3.9 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Acetone | ND | 5.6 | 2.4 | ppbv | ND | 14 | 5.7 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **Benzene** | **4.8** | 5.6 | 4.1 | ppbv | **16** | 18 | 13 | ug/m³ | 11.2 | **J** | 03/11/2010 | TD |
| Benzyl chloride | ND | 11 | 4.9 | ppbv | ND | 59 | 26 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Bromodichloromethane | ND | 5.6 | 2.0 | ppbv | ND | 35 | 13 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Bromoform | ND | 5.6 | 2.5 | ppbv | ND | 59 | 26 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Bromomethane | ND | 5.6 | 2.8 | ppbv | ND | 22 | 11 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Carbon disulfide | ND | 5.6 | 1.2 | ppbv | ND | 18 | 3.9 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Carbon tetrachloride | ND | 5.6 | 2.1 | ppbv | ND | 36 | 14 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Chlorobenzene | ND | 5.6 | 3.7 | ppbv | ND | 26 | 17 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Chloroethane | ND | 5.6 | 5.2 | ppbv | ND | 15 | 14 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Chloroform | ND | 5.6 | 2.4 | ppbv | ND | 28 | 12 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Chloromethane | ND | 5.6 | 3.2 | ppbv | ND | 12 | 6.8 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| cis-1,2-Dichloroethylene | ND | 5.6 | 2.8 | ppbv | ND | 23 | 11 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| cis-1,3-Dichloropropylene | ND | 5.6 | 2.9 | ppbv | ND | 26 | 13 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **Cyclohexane** | **2.7** | 5.6 | 2.0 | ppbv | **9.4** | 20 | 7.1 | ug/m³ | 11.2 | **J** | 03/11/2010 | TD |
| Ethyl acetate | ND | 5.6 | 2.5 | ppbv | ND | 21 | 9 | ug/m³ | 11.2 | | 03/11/2010 | TD |

Sample ID: **S06 MID LOT** Sampled: 03/05/2010

York ID: **10C0296-04 (Air)**

### Volatile Organic Compounds by EPA Compendium TO14A/TO15

| | ppbv | | | | ug/m³ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| **Ethyl Benzene** | **9.0** | 5.6 | 3.4 | ppbv | **40** | 25 | 15 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Hexachlorobutadiene | ND | 5.6 | 3.1 | ppbv | ND | 61 | 34 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Isopropanol | ND | 11 | 5.3 | ppbv | ND | 28 | 13 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Methyl isobutyl ketone | ND | 11 | 5.6 | ppbv | ND | 47 | 23 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Methyl tert-butyl ether (MTBE) | ND | 5.6 | 2.8 | ppbv | ND | 20 | 10 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **Methylene chloride** | **20** | 5.6 | 3.5 | ppbv | **72** | 20 | 12 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **n-Heptane** | **2.5** | 5.6 | 2.2 | ppbv | **10** | 23 | 9.3 | ug/m³ | 11.2 | **J** | 03/11/2010 | TD |
| **n-Hexane** | **35** | 5.6 | 3.6 | ppbv | **130** | 20 | 13 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **o-Xylene** | **12** | 5.6 | 3.9 | ppbv | **53** | 25 | 17 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **p- & m- Xylenes** | **32** | 11 | 8.8 | ppbv | **140** | 49 | 39 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **p-Ethyltoluene** | **5.6** | 5.6 | 1.0 | ppbv | **28** | 28 | 5 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Propylene | ND | 11 | 7.1 | ppbv | ND | 20 | 12 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Styrene | ND | 5.6 | 3.2 | ppbv | ND | 24 | 14 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **Tetrachloroethylene** | **2.6** | 5.6 | 2.4 | ppbv | **18** | 39 | 16 | ug/m³ | 11.2 | **J** | 03/11/2010 | TD |
| Tetrahydrofuran | ND | 11 | 4.6 | ppbv | ND | 34 | 14 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| **Toluene** | **42** | 5.6 | 3.0 | ppbv | **160** | 21 | 12 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| trans-1,2-Dichloroethylene | ND | 5.6 | 3.6 | ppbv | ND | 23 | 14 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| trans-1,3-Dichloropropylene | ND | 5.6 | 1.7 | ppbv | ND | 26 | 7.8 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Trichloroethylene | ND | 5.6 | 2.7 | ppbv | ND | 31 | 15 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Vinyl acetate | ND | 5.6 | 1.5 | ppbv | ND | 20 | 5.2 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Vinyl bromide | ND | 5.6 | 2.5 | ppbv | ND | 25 | 11 | ug/m³ | 11.2 | | 03/11/2010 | TD |
| Vinyl Chloride | ND | 5.6 | 3.7 | ppbv | ND | 15 | 9.6 | ug/m³ | 11.2 | | 03/11/2010 | TD |

| *Surrogate Recovery* | *Result* | *Acceptance Range* | | |
|---|---|---|---|---|
| *Surrogate: p-Bromofluorobenzene* | *114 %* | *70-130* | *03/11/2010* | TD |

| | ppbv | | | | ug/m³ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| Helium | ND | 0.50 | 0.5 | % | ND | 0 | 0 | ug/m³ | 1 | | 03/11/2010 | JW |

Sample ID: **#12 END LOT** Sampled: 03/05/2010

York ID: **10C0296-05 (Air)**

### Volatile Organic Compounds by EPA Compendium TO14A/TO15

| | ppbv | | | | ug/m³ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| 1,1,1-Trichloroethane | ND | 0.84 | 0.4 | ppbv | ND | 4.7 | 2.4 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| 1,1,2,2-Tetrachloroethane | ND | 0.84 | 0.4 | ppbv | ND | 5.9 | 2.7 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| **1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)** | **1.8** | 0.84 | 0.4 | ppbv | **14** | 6.5 | 3.3 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| 1,1,2-Trichloroethane | ND | 0.84 | 0.5 | ppbv | ND | 4.7 | 2.6 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| 1,1,2-Trichlorotrifluoroethane (Freon 11) | ND | 0.84 | 0.4 | ppbv | ND | 6.5 | 3.3 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| 1,1-Dichloroethane | ND | 0.84 | 0.4 | ppbv | ND | 3.5 | 1.7 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| 1,1-Dichloroethylene | ND | 0.84 | 0.3 | ppbv | ND | 3.4 | 1.2 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| 1,2,4-Trichlorobenzene | ND | 0.84 | 0.3 | ppbv | ND | 6.3 | 2 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| **1,2,4-Trimethylbenzene** | **0.89** | 0.84 | 0.5 | ppbv | **4.5** | 4.2 | 2.4 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| 1,2-Dichlorobenzene | ND | 0.84 | 0.3 | ppbv | ND | 5.1 | 2.1 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| 1,2-Dichloroethane | ND | 0.84 | 0.3 | ppbv | ND | 3.5 | 1.2 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| 1,2-Dichloropropane | ND | 0.84 | 0.6 | ppbv | ND | 3.9 | 2.9 | ug/m³ | 1.68 | | 03/12/2010 | TD |
| 1,2-Dichlorotetrafluoroethane | ND | 0.84 | 0.5 | ppbv | ND | 6 | 3.2 | ug/m³ | 1.68 | | 03/12/2010 | TD |

Sample ID: **#12 END LOT** Sampled: 03/05/2010

York ID: **10C0296-05 (Air)**

**Volatile Organic Compounds by EPA Compendium TO14A/TO15**

| | ppbv | | | | ug/m$^3$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| 1,3,5-Trimethylbenzene | ND | 0.84 | 0.4 | ppbv | ND | 4.2 | 1.9 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| 1,3-Butadiene | ND | 0.84 | 0.7 | ppbv | ND | 3.7 | 3.1 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| 1,3-Dichlorobenzene | ND | 0.84 | 0.4 | ppbv | ND | 5.1 | 2.4 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| 1,4-Dichlorobenzene | ND | 0.84 | 0.6 | ppbv | ND | 5.1 | 3.5 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| 1,4-Dioxane | ND | 3.4 | 1.5 | ppbv | ND | 12 | 5.7 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| **2,2,4-Trimethylpentane** | **0.96** | 0.84 | 0.3 | ppbv | **4.6** | 4 | 1.6 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| **2-Butanone** | **1.4** | 0.84 | 0.4 | ppbv | **4.1** | 2.5 | 1.2 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| 2-Chloro-1,3-Butadiene | ND | 0.84 | 0.5 | ppbv | ND | 0 | 0 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| 2-Hexanone | ND | 1.7 | 0.9 | ppbv | ND | 7 | 3.6 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| 3-Chloropropene | ND | 0.84 | 0.2 | ppbv | ND | 2.7 | 0.59 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Acetone | ND | 0.84 | 0.4 | ppbv | ND | 2 | 0.85 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Benzene | ND | 0.84 | 0.6 | ppbv | 2 | 2.7 | 2 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Benzyl chloride | ND | 1.7 | 0.7 | ppbv | ND | 8.8 | 3.9 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Bromodichloromethane | ND | 0.84 | 0.3 | ppbv | ND | 5.3 | 1.9 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Bromoform | ND | 0.84 | 0.4 | ppbv | ND | 8.8 | 3.9 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Bromomethane | ND | 0.84 | 0.4 | ppbv | ND | 3.3 | 1.7 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Carbon disulfide | ND | 0.84 | 0.2 | ppbv | ND | 2.7 | 0.59 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Carbon tetrachloride | ND | 0.84 | 0.3 | ppbv | ND | 5.4 | 2 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Chlorobenzene | ND | 0.84 | 0.6 | ppbv | ND | 3.9 | 2.6 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Chloroethane | ND | 0.84 | 0.8 | ppbv | ND | 2.3 | 2.1 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Chloroform | ND | 0.84 | 0.4 | ppbv | ND | 4.2 | 1.8 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Chloromethane | ND | 0.84 | 0.5 | ppbv | ND | 1.8 | 1 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| cis-1,2-Dichloroethylene | ND | 0.84 | 0.4 | ppbv | ND | 3.4 | 1.7 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| cis-1,3-Dichloropropylene | ND | 0.84 | 0.4 | ppbv | ND | 3.9 | 2 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Cyclohexane | ND | 0.84 | 0.3 | ppbv | ND | 2.9 | 1.1 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Ethyl acetate | ND | 0.84 | 0.4 | ppbv | ND | 3.1 | 1.4 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| **Ethyl Benzene** | **0.92** | 0.84 | 0.5 | ppbv | **4.1** | 3.7 | 2.2 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Hexachlorobutadiene | ND | 0.84 | 0.5 | ppbv | ND | 9.1 | 5.1 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Isopropanol | ND | 1.7 | 0.8 | ppbv | ND | 4.2 | 2 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Methyl isobutyl ketone | ND | 1.7 | 0.8 | ppbv | ND | 7 | 3.5 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Methyl tert-butyl ether (MTBE) | ND | 0.84 | 0.4 | ppbv | ND | 3.1 | 1.5 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| **Methylene chloride** | **23** | 0.84 | 0.5 | ppbv | **80** | 3 | 1.8 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| **n-Heptane** | **0.94** | 0.84 | 0.3 | ppbv | **3.9** | 3.5 | 1.4 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| **n-Hexane** | **3.0** | 0.84 | 0.5 | ppbv | **11** | 3 | 1.9 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| **o-Xylene** | **1.1** | 0.84 | 0.6 | ppbv | **4.9** | 3.7 | 2.6 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| **p- & m- Xylenes** | **3.0** | 1.7 | 1.3 | ppbv | **13** | 7.4 | 5.9 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| **p-Ethyltoluene** | **0.77** | 0.84 | 0.2 | ppbv | **3.9** | 4.2 | 0.76 | ug/m$^3$ | 1.68 | **J** | 03/12/2010 | TD |
| Propylene | ND | 1.7 | 1.1 | ppbv | ND | 2.9 | 1.9 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Styrene | ND | 0.84 | 0.5 | ppbv | ND | 3.6 | 2.1 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Tetrachloroethylene | ND | 0.84 | 0.4 | ppbv | ND | 5.8 | 2.4 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Tetrahydrofuran | ND | 1.7 | 0.7 | ppbv | ND | 5 | 2.1 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| **Toluene** | **3.8** | 0.84 | 0.5 | ppbv | **15** | 3.2 | 1.7 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| trans-1,2-Dichloroethylene | ND | 0.84 | 0.5 | ppbv | ND | 3.4 | 2.2 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| trans-1,3-Dichloropropylene | ND | 0.84 | 0.3 | ppbv | ND | 3.9 | 1.2 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Trichloroethylene | ND | 0.84 | 0.4 | ppbv | ND | 4.6 | 2.2 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Vinyl acetate | ND | 0.84 | 0.2 | ppbv | ND | 3 | 0.78 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Vinyl bromide | ND | 0.84 | 0.4 | ppbv | ND | 3.7 | 1.6 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |
| Vinyl Chloride | ND | 0.84 | 0.6 | ppbv | ND | 2.2 | 1.4 | ug/m$^3$ | 1.68 | | 03/12/2010 | TD |

Sample ID: **#12 END LOT** Sampled: 03/05/2010

York ID: **10C0296-05 (Air)**

### Volatile Organic Compounds by EPA Compendium TO14A/TO15

| | **ppbv** | | | | **ug/m$^3$** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| *Surrogate Recovery* | *Result* | *Acceptance Range* | | | | | | | | | | |
| *Surrogate: p-Bromofluorobenzene* | *102 %* | *70-130* | | | | | | | | | *03/12/2010* | TD |

| | **ppbv** | | | | **ug/m$^3$** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Result | RL | MDL | Units | Result | RL | MDL | Units | Dilution | Qualifiers | Analyzed | Analyst |
| Helium | ND | 0.50 | 0.5 | % | ND | 0 | 0 | ug/m$^3$ | 1 | | 03/11/2010 | JW |

# Notes and Definitions

| | |
|---|---|
| J | Detected but below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration. |
| ND | Analyte NOT DETECTED at or above the Reporting Limit |
| RL | Reporting Limit-the minimum reportable value based upon the lowest point in the analyte calibration curve. |
| MDL | Method Detection Limit- The minimum concentration that can be measured and reported with 99 percent confidence that the concentration is greater than zero. If requested or required, a value reported below the RL and above the MDL is considered estimated and is noted with a "J"Flag. |
| NR | Not reported |
| RPD | Relative Percent Difference |
| Wet | The data has been reported on an as-received (wet weight) basis |
| Low Bias | Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias. |
| High Bias | High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias. |
| Non-Dir. | Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons. |

Page 1 of 1

**YORK**
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DR. STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

**NOTE:** York's Std. Terms & Conditions are listed on the back side of this document. This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions unless superseded by written contract.

York Project No. 10C0296

## YOUR Information

Company: JADE ENV
Address: 54 Castle Dr
Hopewell Jct NY
Phone No. (914) 882-6074
Contact Person: D. Pelletier
E-Mail Address:

## Report To:

Company: SAME
Address:
Phone No.
Attention:
E-Mail Address:

## Invoice To:

Company: SAME
Address:
Phone No.
Attention:
E-Mail Address:

## YOUR Project ID

80 Croton Ave

## Purchase Order No.

Samples from: CT ___ NY ✓ NJ ___

## Turn-Around Time

RUSH - Same Day ☐
RUSH - Next Day ☐
RUSH - Two Day ☐
RUSH - Three Day ☐
RUSH - Four Day ☐
Standard(5-7 Days) ☑

## Report Type/Deliverbles

Summary Report ✓
Summary w/ QA Summary ___
CT RCP Package ___
NY ASP A Package ___
NY ASP B Package ___
*Electronic Deliverables:*
EDD (Specify Type) ___
Excel ___

***Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.***

Samples Collected/Authorized By (Signature)

DAVE PELLETIER
Name (printed)

Matrix Codes
S - soil
Other - specify(oil, etc.)
WW - wastewater
GW - groundwater
DW - drinking water
Air-A - ambient air
Air-SV - soil vapor

| Volatiles | | Semi-Vols. | Pest/PCB/Herb | Metals | Misc. Org. | Full Lists | Common Miscellaneous Parameters | | |
|---|---|---|---|---|---|---|---|---|---|
| 8260 full | TICs | 8270 or 625 | 8082PCB | RCRA8 | TPH GRO | Pri.Poll. | Corrosivity | Nitrate | Color |
| 624 | Site Spec. | STARS list | 8081Pest | PP13 list | TPH DRO | TCL Organics | Reactivity | Nitrite | Phenols |
| STARS list | Nassau Co. | BN Only | 8151Herb | TAL | CT ETPH | TAL Met/CN | Ignitability | TKN | Cyanide-T |
| BTEX | Suffolk Co. | Acids Only | CT RCP | CT15 list | NY 310-13 | Full TCLP | Flash Point | Tot. Nitrogen | Cyanide-A |
| MTBE | Ketones | PAH list | App. IX | TAGM list | TPH 1664 | Full App. IX | Sieve Anal. | Ammonia-N | BOD5 |
| TCL list | Oxygenates | TAGM list | Site Spec. | NJDEP list | Air TO14A | Part 360-Routine | Heterotrophs | Chloride | CBOD5 |
| TAGM list | TCLP list | CT RCP list | SPLP or TCLP | Total | [✓ Air TO15] | Part 360-Baseline | TOX | Phosphate | BOD28 |
| CT RCP list | 524.2 | TCL list | TCLP Pest | Dissolved | Air STARS | Part 360-Expanded No Dioxins/Furans | BTU/lb. | Tot. Phos. | COD |
| Arom. only | 502.2 | NJDEP list | TCLP Herb | SPLP or TCLP | Air VPH | Part 360-Expanded Full List | Aquatic Tox. | Oil&Grease | TSS |
| Halog.only | NJDEP list | App. IX | Chlordane | Indiv. Metals | Air TICs | NYCDEP Sewer | TOC | F.O.G. | Total Solids |
| App.IX list | SPLP or TCLP | TCLP BNA | 608 Pest | LIST Below | Methane | NYSDEC Sewer | Asbestos | pH | TDS |
| 8021B list | | SPLP or TCLP | 608 PCB | | Helium | TAGM | Silica | MBAS | TPH-1664 |

## Special Instructions

Field Filtered ☐
Lab to Filter ☐

| Sample Identification | | Date Sampled | Sample Matrix | Choose Analyses Needed from the Menu Above and Enter Below | Container Description(s) |
|---|---|---|---|---|---|
| S01 | Palmer | 3-4-10 | Air-A | Air TO-15 | Summa |
| S25 | Moore | 3-4-10 | Air-A | ↓ | ↓ |
| P-19 | Moore | 3-4-10 | Air-SV | ↓ | ↓ |
| S06 | Mid lot | 3-5-10 | Air-SV | ↓ | ↓ |
| #12 | End lot | 3-5-10 | Air-SV | ↓ | ↓ |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Comments

Preservation
Check those Applicable

4°C ✓ Frozen ___ HCl ___ MeOH ___ HNO$_3$ ___ H$_2$SO$_4$ ___ NaOH ___
ZnAc ___ Ascorbic Acid ___ Other ___

Samples Relinquished By ___ Date/Time 3-8-10

Samples Relinquished By ___ Date/Time

Chris C 3-8-10 11:00
Samples Received By ___ Date/Time

P Grace 3/8/10 1530
Samples Received in LAB by ___ Date/Time

Temperature on Receipt
~~3.8~~ °C

OSR – 3

# NEW YORK STATE DEPARTMENT OF HEALTH
# INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
# CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Dave Pelletier, PE Date/Time Prepared June 1, 2010

Preparer's Affiliation Jade Environmental Phone No. (914) 882-6074

Purpose of Investigation Brownfield Site #C360110
Adjacent property Soil Vapor Intrusion Study

**1. OCCUPANT:**

**Interviewed:** Y / [✓ N]

Last Name: Motta First Name: Diane

Address: 6 Palmer Place

County: Westchester

Home Phone: (914) 941-8371 Office Phone: ____________

Number of Occupants/persons at this location 2 Age of Occupants 65+

**2. OWNER OR LANDLORD:** (Check if same as occupant ✓ )

**Interviewed:** Y / N

Last Name: ____________ First Name: ____________

Address: ____________

County: ____________

Home Phone: ____________ Office Phone: ____________

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

[✓ Residential] School Commercial/Multi-use
Industrial Church Other: ____________

**If the property is residential, type?** (Circle appropriate response)

| | | |
|---|---|---|
| Ranch | 2-Family | 3-Family |
| Raised Ranch ✓ | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other:_______________ |

**If multiple units, how many?** ________

**If the property is commercial, type?**

Business Type(s) NA

Does it include residences (i.e., multi-use)? Y / N If yes, how many? ______

**Other characteristics:**

Number of floors 2 + B

Building age +50 Yrs

Is the building insulated? [✓ Y] / N

How air tight? Tight / [✓ Average] / Not Tight

## 4. AIRFLOW

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

NA

Airflow near source

NA

Outdoor air infiltration

NA

Infiltration into air ducts

NA

## 5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

**a. Above grade construction:** [✓ wood frame] concrete stone brick

**b. Basement type:** [✓ full] crawlspace slab other ________

**c. Basement floor:** [✓ concrete] dirt stone other ________

**d. Basement floor:** uncovered covered covered with Concrete

**e. Concrete floor:** [✓ unsealed] sealed sealed with ____________

**f. Foundation walls:** poured block [✓ stone] other ________

**g. Foundation walls:** [✓ unsealed] sealed sealed with ____________

**h. The basement is:** wet [✓ damp] dry moldy

**i. The basement is:** finished [✓ unfinished] partially finished

**j. Sump present?** Y / [✓ N]

**k. Water in sump?** Y / [✓ N] / not applicable

**Basement/Lowest level depth below grade:** ±6' (feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

Crack in concrete slab,

## 6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

Hot air circulation
Space Heaters
Electric baseboard
Heat pump
Stream radiation
Wood stove
[✓ Hot water baseboard]
Radiant floor
Outdoor wood boiler
Other ________

**The primary type of fuel used is:**

Natural Gas ✓
* Electric
Wood
Fuel Oil
Propane
Coal
Kerosene
Solar

**Domestic hot water tank fueled by:** NG

**Boiler/furnace located in:** [✓ Basement] Outdoors Main Floor Other________

**Air conditioning:** Central Air Window units Open Windows [✓ None]

**Are there air distribution ducts present?** Y / [✓ N]

**Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.**

## 7. OCCUPANCY

**Is basement/lowest level occupied?** Full-time Occasionally [✓ Seldom] Almost Never

| **Level** | **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** |
|---|---|
| Basement | Washer, Dryer, Storage |
| 1st Floor | Living Space, Kitchen, LR, DR |
| 2nd Floor | Bedroom |
| 3rd Floor | NA |
| 4th Floor | NA |

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

**a. Is there an attached garage?** Y / [✓ N]

**b. Does the garage have a separate heating unit?** Y / N / NA

**c. Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) Y / [✓ N] / NA Please specify__________

* **d. Has the building ever had a fire?** Y / [✓ N] When?__________

**e. Is a kerosene or unvented gas space heater present?** Y / [✓ N] Where?__________

**f. Is there a workshop or hobby/craft area?** Y / [✓ N] Where & Type?__________

* **g. Is there smoking in the building?** Y / N How frequently?__________

**h. Have cleaning products been used recently?** Y / [✓ N] When & Type?__________

**i. Have cosmetic products been used recently?** Y / [✓ N] When & Type?__________

* **j. Has painting/staining been done in the last 6 months?** Y / [✓ N] Where & When? ______________

**k. Is there new carpet, drapes or other textiles?** Y / [✓ N] Where & When? ______________

**l. Have air fresheners been used recently?** Y / [✓ N] When & Type? ______________

**m. Is there a kitchen exhaust fan?** Y / [✓ N] If yes, where vented?____________

* **n. Is there a bathroom exhaust fan?** Y / [✓ N] If yes, where vented?____________

**o. Is there a clothes dryer?** [✓ Y] / N If yes, is it vented outside? [✓ Y] / N

**p. Has there been a pesticide application?** Y / [✓ N] When & Type?______________

**Are there odors in the building?** Y / [✓ N]
If yes, please describe: ____________________________________________

**Do any of the building occupants use solvents at work?** Y / [✓ N]
(c.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ____________ NA ____________

If yes, are their clothes washed at work? Y / [✓ N]

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) [✓ No]
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y / [✓ N] Date of Installation: ___________
**Is the system active or passive?** Active/Passive

**9. WATER AND SEWAGE**

**Water Supply:** [✓ Public Water] Drilled Well Driven Well Dug Well Other: _______

**Sewage Disposal:** [✓ Public Sewer] Septic Tank Leach Field Dry Well Other: _______

**10. RELOCATION INFORMATION (for oil spill residential emergency)**

NA

**a. Provide reasons why relocation is recommended:** ________________________________

**b. Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

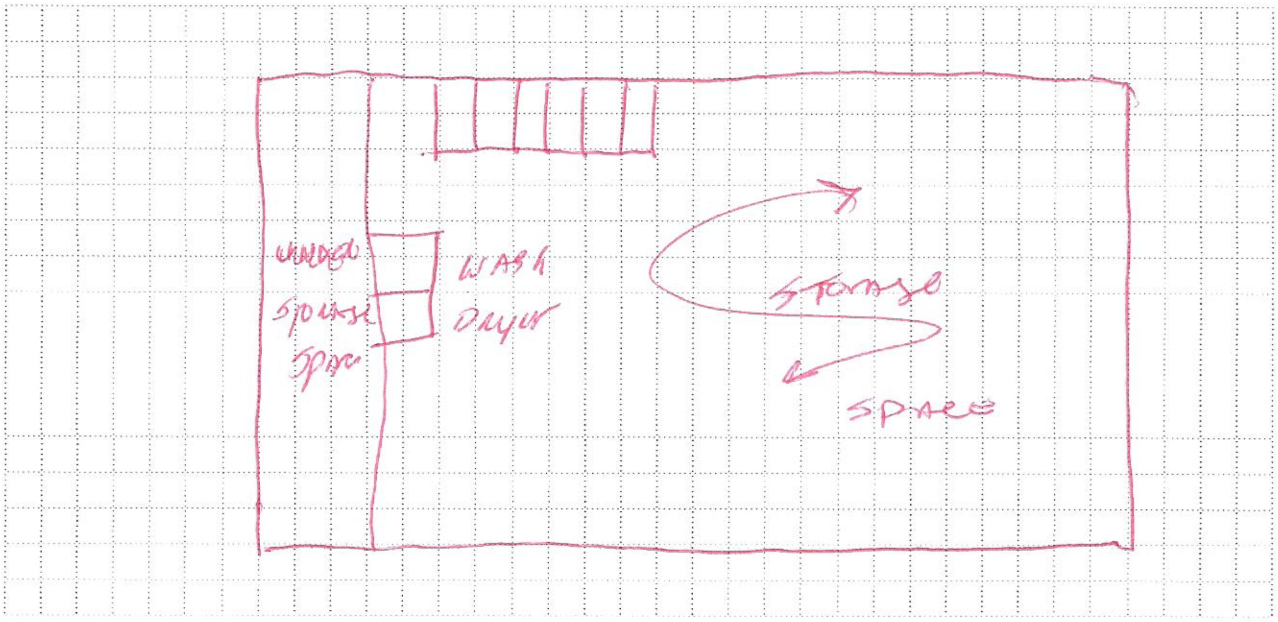
**c. Responsibility for costs associated with reimbursement explained?** Y / N

**d. Relocation package provided and explained to residents?** Y / N

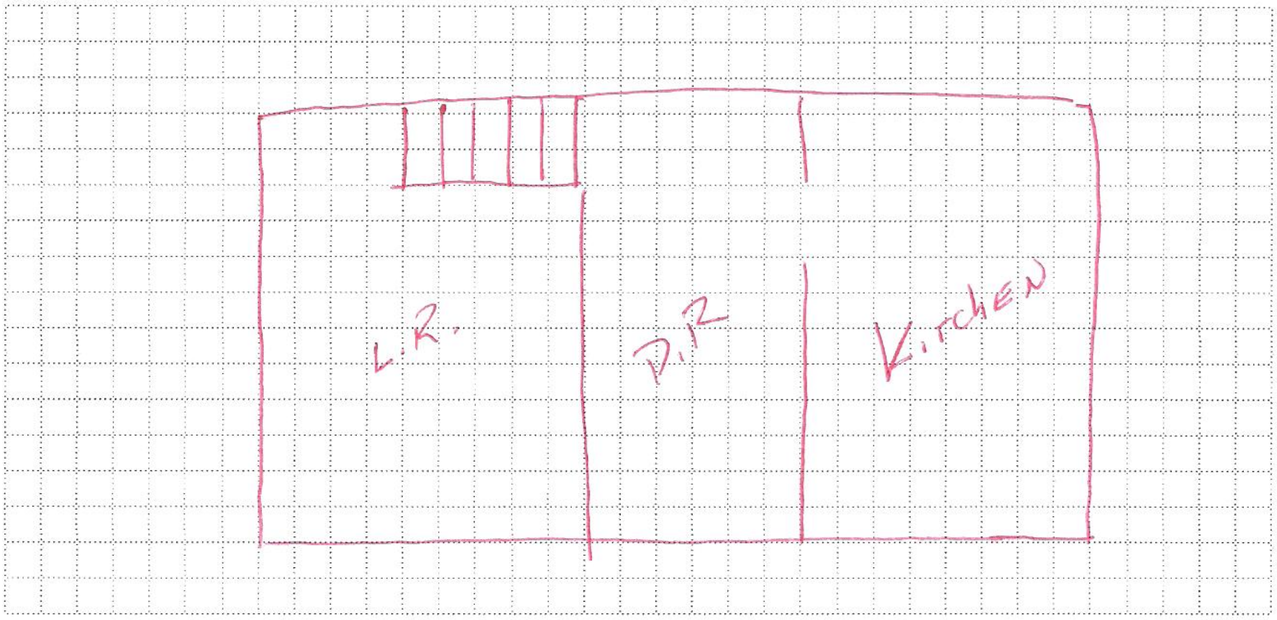
## 11. FLOOR PLANS

**Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.**

**Basement:**



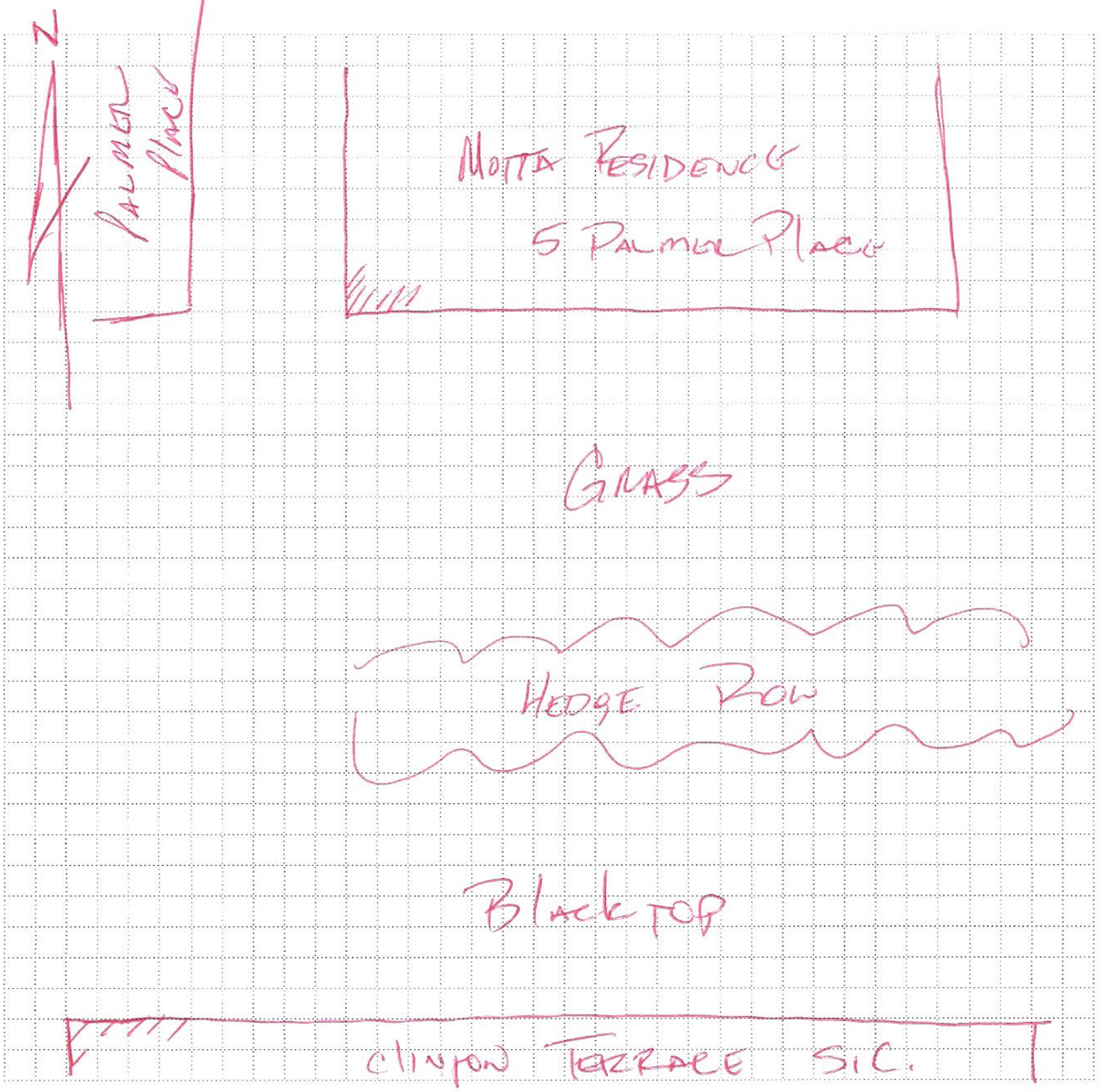
**First Floor:**



## 12. OUTDOOR PLOT

**Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.**

**Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.**



## 13. PRODUCT INVENTORY FORM

**Make & Model of field instrument used:** ProRae. 2000 PID

**List specific products found in the residence that have the potential to affect indoor air quality.**

| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo** Y / N |
|---|---|---|---|---|---|---|
| Basem | Paint | 1G | G | Sealed Tight | 0 | N |
| " | Lacquer | 1Q | ↓ | ↓ | 0 | ↓ |
| " | Stain | 1Q | ↓ | ↓ | 0 | ↓ |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

*Mrs. Moppa was asked to remove before sampling but, ignored request.
D.P.

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.