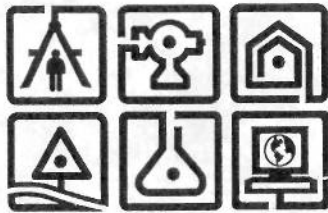


March 31, 2005  
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Environmental Restoration Program  
(ERP No. E-447034)

Interim Remedial Measures  
Work Plan  
714 Broadway Site  
NYSDEC Spill No. 04-00440

714 Broadway  
City of Schenectady  
Schenectady County, New York

*Prepared for:*

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**ENVIRONMENTAL RESTORATION PROGRAM  
INTERIM REMEDIAL MEASURES WORK PLAN  
714 BROADWAY SITE  
CITY OF SCHENECTADY  
SCHENECTADY COUNTY, NEW YORK**

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Report prepared by C.T. Male Associates, P.C., dated June 4, 2004

## **1.0 INTRODUCTION AND PURPOSE**

### **1.1 General and Work Plan Organization**

This report is presented to provide both the justification for the completion of an Interim Remedial Measure (IRM) at the Site, as well as to provide the plan of work to be conducted as a function of the IRM activity. This IRM Work Plan has been developed in general accordance with New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation, Draft DER-10, Technical Guidance for Site Investigation and Remediation (December 2002). The proposed IRM activity for the Site includes 1) the closure, by removal, of four underground storage tanks (USTs) and one aboveground storage tank (AST) at the Site, 2) the excavation and disposal of petroleum impacted soils affiliated with the USTs, and 3) a determination of potential petroleum impacts to groundwater in conjunction with the existence of the USTs.

This work plan consists of five main sections. Section 1 of this work plan is the introduction and purpose which discusses project justification, site description, site history, previous investigations and summary of environmental conditions. Section 2 discusses the objectives of the IRM, the work tasks to be performed under the IRM and the procedures for implementing the tasks including decontamination procedures, disposal of remediation and investigation-derived waste and quality assurance/quality control protocols. Section 3 discusses report preparation and submissions, and the proposed schedule of project work tasks. Section 4 discusses the Site Specific Health and Safety Plan, which is appended as Attachment A. Section 5 addresses the objectives of the Citizen Participation Plan, which is appended as Attachment B.

### **1.2 Project Justification**

As defined within DER-10, Section 1.11, IRM actions are taken to mitigate environmental or human exposures before the completion of the remedial investigation and appropriate remedial alternative selection. IRMs may include, but are not limited to the removal of wastes and contaminated materials including environmental media. IRMs can be either emergency or non-emergency actions. A non-emergency IRM is an action that can be undertaken at any time during the course of the investigation. The use of a non-time critical IRM is encouraged when a source of contamination or exposure pathway can be effectively addressed before completion of the on-going

investigation and remedy selection process. Non-emergency IRMs are required to be planned in accordance with DER-10, specifically Sections 5.2 or 5.3, and implemented in accordance with Section 5.4. Non-emergency IRMs involving underground storage tanks are required to conform to the requirements of Section 5.5.

### **1.3 Site Description**

The site, which is the subject of the New York State Environmental Restoration Program (ERP), consists of a rectangular parcel of land (30 feet by 86 feet) addressed as 714 Broadway located at the northeast corner of Broadway and Weaver Street in the City of Schenectady, Schenectady County, New York. The Site number, as established by the NYSDEC under this ERP, is E-447034.

As discussed, the site lies at the northeast intersection of Broadway and Weaver Street. The site is rectangular in shape and has approximately 86 feet of frontage along the east side of Weaver Street and approximately 30 feet of frontage along the north side of Broadway. An approximate 1,100 square foot abandoned two-story building is located on the northern portion of the site while asphalt paved areas make up southern portions of the site. Underground storage tank (UST) fill ports are located at grade on eastern portions of the asphalt pavement. An assumed vertical UST vent pipe serving the USTs is located along the southeast exterior wall of the structure. A Site Location Map showing the Site and surrounding properties is presented as Figure 1. The Site, as depicted on the City of Schenectady Tax Map, is presented as Figure 2. A Site Plan Sketch depicting existing conditions is presented as Figure 3.

The City of Schenectady (City) currently owns the Site. The City acquired the Site by tax foreclosure proceedings sometime after approximately 2000. Prior to the City taking possession, the Site was reportedly used as a gasoline and service station, and thereafter for storage and as a residence.

The City intends to convert the Site to commercial use consistent with the surrounding area, which would increase the local economy's tax base as well as provide employment for residents of the surrounding area. Based on the Site's past usage and intended future use, the Site was approved for inclusion into the ERP, as denoted by execution of the State Assistance Contract (SAC) for the Site by the State Comptroller on February 25, 2005.

#### **1.4 Site History**

The City reportedly acquired possession of the Site by tax foreclosure proceedings sometime after the year 2000. According to City assessment records, the site used to be a gasoline and service station, and then was used for storage and residential purposes. According to the previous property owner, four USTs (one 1,000 gallons and three 3,000 gallons) are present at the Site. The previous owner further indicated that there were no gasoline pumps present when he purchased the Site in approximately 1978. The time period that the Site operated as a gasoline station is currently unknown.

In 2003, the City was issued a Notice of Violation (NOV) by NYSDEC regarding the Site's compliance with the NYS Petroleum Bulk Storage (PBS) regulations pertaining to unregistered tanks and out of service tanks on the Site. The City contracted with C.T. Male Associates, P.C. (C.T. Male) in 2004 to investigate the site for petroleum bulk storage tanks and for evidence of a release from the tanks. On March 24, 2004 and April 1, 2004, C.T. Male on behalf of the City submitted a PBS application to register the known petroleum bulk storage tanks at the site and to register the additional tanks identified during the tank investigations on March 30, 2004, respectively. The site was assigned PBS Number 4-600945.

#### **1.5 Previous Investigations**

C.T. Male was retained by the City in 2004 to investigate the site for the presence of petroleum bulk storage tanks and for evidence of a release from the tanks. C.T. Male conducted its investigation and submitted the results in a June 4, 2004 report entitled "Petroleum Storage Tanks And Geoprobe Subsurface Investigations Report." Per discussion with NYSDEC personnel, C.T. Male's 2004 investigative report will form the Site Investigation portion of this ERP. The report is presented in its entirety as Exhibit 1 and includes the Text and Tables; Site Location Map; Tax Map of the Site; Sampling Locations Map; Tank Investigation and Subsurface Investigation Laboratory Analysis Reports and Chain of Custody Records; Geoprobe Subsurface Logs; and Organic Vapor Headspace Analysis Logs. Pursuant to the foregoing investigation, the Site was issued NYSDEC Spill Number 04-00440.

The purpose of C.T. Male's 2004 investigation of the site included the determination, to the extent feasible, of the number of tanks present on the Site, their potential size and

contents, and to conduct a tank assessment in accordance with 40 CFR Part 280.72 for evidence of a release of petroleum onto the Site. The scope of the investigation involved the identification and investigation of four (4) underground storage tanks (USTs) located beneath an asphalt paved section of the Site and one aboveground storage tank (AST) located within the Site building. The investigation also included a Geoprobe subsurface investigation to facilitate soil and groundwater sampling to determine if a release of petroleum had occurred, and/or to determine the quality of soil and groundwater in the area of the four abandoned USTs.

Results of the investigation revealed the following information regarding the Site:

- Four USTs (referenced as Tanks 001, 002, 004 and 005) and one AST (referenced as Tank 003) are located on the Site. The USTs are located beneath asphalt pavement on the southern portion of the Site, as defined by the existence of four fill ports in this area. Field measurements of the UST widths and depths and consultation with the previous Site owner suggests one UST to be approximately 1,000 gallons in size and the three remaining USTs to each be approximately 3,000 gallons in size. The AST is located within the Site building and is 275 gallons in size based on field observations. Refer to Figure 3 for approximate tank locations and orientations.
- Three of the four USTs, notably Tanks 001, 002 and 005, contained water within them, while Tank 004 was dry. The AST within the Site building contained a minimal amount of heating oil. Bottom sludge was not identified within the tanks.
- Laboratory analytical results for VOCs from water sampled within Tank 005 depicted the water as impacted by petroleum. An extrapolation of the analytical results for Tank 005 was used to conclude that water within Tank 001 and Tank 002 was probably also impacted by petroleum.
- The Geoprobe subsurface investigation depicted soils beneath the site to be made up primarily of fill material consisting of fine sands and silts with varying amounts of gravel and occurrences of brick. The fill material was underlain by native soils consisting of varying percentages of silts and fine to medium sands.

Groundwater was encountered at depths that ranged from 8 to 10 feet below the ground surface (bgs).

- Field screening results (PID meter headspace analysis and organoleptic perception) of select subsurface soil samples from the Geoprobe investigation did not show evidence of petroleum impacts to soils extracted from Geoprobe locations GP-1, GP-4 and GP-5, which were located adjacent to the north/northwest, east and north, respectively, of the USTs. Field screening results of soil samples collected from Geoprobe locations GP-2, GP-3 and GP-6 showed low to elevated PID meter readings and evidence of petroleum staining, sheens and odors, with the greatest severity of the impacts being localized to GP-6. The latter Geoprobe bore hole locations are situated to the west, south and southwest, respectively, of the UST locations.
- Laboratory analytical results for VOCs from soil samples submitted from select depth intervals below ground surface from Geoprobe bore hole locations GP-2, GP-3, GP-4 and GP-6 showed several compounds at detections above the laboratory detection limit including at GP-4 (one compound) and GP-6 (four compounds), but at concentrations below NYSDEC TAGM recommended soil cleanup values. Compounds were not detected above the laboratory detection limit for soil samples submitted from bore hole locations GP-2 and GP-3.
- Laboratory analytical results for VOCs from groundwater sampled from GP-1 to GP-4 and GP-6 using a Geoprobe Screen Point 15 groundwater sampler showed concentrations of VOCs to be non-detect. The temporary wells were sampled to determine if groundwater had been impacted by the PID screening contamination detected in some of the soil samples.

## 1.6 Summary of Environmental Conditions

Based on the Site specific investigation conducted by C.T. Male in 2004, the following environmental conditions are proposed to be addressed by the Interim Remedial Measures:

- The four (4) USTs and associated piping located beneath asphalt pavement on southern portions of the Site,

- Petroleum impacted water present within Tank 001, Tank 002 and Tank 005,
- Petroleum impacted soils in the vicinity of the USTs,
- The AST and associated piping located within the Site building. A minimal amount of heating fuel oil remains within the tank, and
- Potential impacts to groundwater relative to the historical existence of the USTs.

## **2.0 PROPOSED INTERIM REMEDIAL MEASURE ACTIONS**

### **2.1 Interim Remedial Measure Objectives**

The goal of the IRM process is to contain and/or stabilize contaminants in all media to reduce or eliminate, to the extent possible, receptor exposure to contaminants or to contain further movement of contaminants through any pathway.

The objective of the proposed IRMs for this ERP project will be to eliminate and contain potential exposures to environmental contaminants affiliated with the existence of Site USTs and the AST, petroleum impacted water within the USTs, petroleum impacted soil, and potentially petroleum impacted groundwater adjacent to the USTs. Based on the intended use of the Site, the proposed IRMs include the closure by removal of existing USTs and associated piping located on southern portions of the Site; the excavation and proper disposal off-site of petroleum impacted soils in the vicinity of the UST locations; a determination of impacts to groundwater, if applicable, from the existence of USTs; and the removal of the AST and associated piping from within the Site building.

### **2.2 Property Boundary Survey**

C.T. Male will perform a planimetric and boundary survey of the Site in accordance with the existing Code of Practice of the New York State Association of Professional Land Surveyors. The planimetric survey will be conducted to aid in the location of Site utilities. The survey will show all above ground visible structures on the Site and structures on adjoining parcels within three feet of the Site boundary lines. As per DER-10, Section 5.8, the survey will also show the locations of the removed USTs along with the limits of the excavation of petroleum impacted soils and the location of installed monitoring wells. The horizontal location of the monitoring wells will be surveyed and the vertical elevation of the top of the PVC monitoring well riser pipes will be surveyed by differential leveling methods (with a level and rod) to the nearest 0.01 feet. An assumed benchmark elevation of 100.00 feet will be established on-site at a permanent structure to use as the site benchmark.

### **2.3 Removal of Above Ground Storage Tank and Monitoring of Interior of Building**

One above ground storage tank (AST) and ancillary piping and equipment is planned to be closed on Site by removal. The approximate AST location is presented in Figure 3.

The tank removal activities will be performed by a subcontractor (Contractor) selected by C.T. Male and approved by the City and NYSDEC, as applicable, through a competitive bidding process in accordance with Section 10.3 of the NYSDEC Municipal Assistance For Environmental Restoration Projects Procedures Handbook. The Contractor will be supervised by a representative of C.T. Male during all tank removal and ancillary activities.

The 275-gallon fuel oil AST and associated piping will be removed from the Site building interior in accordance with the NYSDEC Petroleum Bulk Storage regulations 6 NYCRR Part 613.9, Closure of Out of Service Tanks; New York State Fire Code; and NFPA 30 and will involve the following general procedures:

The contents of the AST will be removed and the AST will be cleaned in accordance with the referenced regulations. A hole will be cut in the top or side (depending on product levels) of the tank to allow access for the removal of the tank contents and cleaning. Polyethylene will be placed on the floor beneath the tank opening to prevent contamination of the floor surface when cleaning the tank. Liquids within the tank will be removed employing manual methods and/or equal method. The liquids, along with any bottom sludge, will be temporarily stored in a labeled DOT 55-gallon drum pending disposal at an approved facility. Any personal protective equipment, clothing and polyethylene (i.e., PPE) will also be containerized for off-site disposal. Upon completion of cleaning, the AST will be dismantled and recycled off-site as scrap metal.

Because the AST is located atop concrete flooring, confirmatory samples for laboratory analyses will not need to be collected. Photographs will be taken of the cleaned tank for inclusion in the report. The tank and piping, tank wastes and PPE will be properly disposed of off-site as discussed in Section 2.9.

After the AST has been removed, the interior of the building will be monitored with a photoionization detector (PID) meter or equivalent for total VOC vapors and checked

for odors. The interior of the building will also be checked for floor drains and other potential environmental conditions.

## **2.4 Removal of Underground Storage Tanks**

Four underground storage tanks and ancillary piping and equipment are planned to be closed on Site by removal. The arrived upon number and location of the USTs is based on 1) C.T. Male's 2004 investigation of the Site, 2) the existence of four fill ports within asphalt paved sections on the southern portions of the Site, and 3) consultation with the previous Site owner. The approximate UST locations and orientations are presented in Figure 3.

As noted in Section 2.3, the tank removal activities will be performed by a subcontractor (Contractor) selected by C.T. Male and approved by the City and NYSDEC, as applicable, through a competitive bidding process in accordance with Section 10.3 of the NYSDEC Municipal Assistance For Environmental Restoration Projects Procedures Handbook. The Contractor will be supervised by a representative of C.T. Male during all tank removal and ancillary activities. The Contractor will be responsible for the demarcation and clearance of all Site utilities prior to commencement of work at the Site.

Closure of the USTs and associated appurtenances (product, fill and vent piping, underground electric, etc.) will conform to DER-10 Sections 5.5 and 7.6; the NYSDEC Petroleum Bulk Storage regulations 6 NYCRR Part 613.9, Closure of Out of Service Tanks; 40 CFR Part 280.71, Out of Service UST Systems and Closures; New York State Fire Code; and NFPA 30 and will involve the following general procedures:

- The asphalt pavement overlying the USTs will be saw cut and removed to expose underlying soils. The soils will then be excavated to expose the tops of the USTs. Any UST and/or former pump island related piping uncovered during the excavation will be removed from the excavation, segregated atop clean 6-mil polyethylene, cleaned and purged of any petroleum residues and vapors, and then recycled off-site as scrap metal. Any UST related piping extending beyond the limits of the excavation will also be removed and handled in the same manner as the latter piping. Any liquid present in the piping will be

containerized in a labeled DOT 55-gallon drum to be disposed of off-site with the contents of the tanks.

- During excavation, clean soil, as determined by the on-site C.T. Male representative using a photoionization detector (PID) meter or equivalent, above the tanks being removed, will be excavated and stockpiled where directed by the C.T. Male representative for reuse as backfill material. The soil will generally be considered clean if it doesn't exhibit any petroleum odors, if there is no visual evidence of staining, and if headspace analysis readings on the PID meter or equivalent do not exceed approximately 5 to 10 parts per million (ppm) above background levels.
- The USTs will be accessed either through tank manholes (if present) or a hole will be cut in the tops of the tanks to allow access for removal of the tank contents and cleaning. Polyethylene will be placed on the ground adjacent to the tank openings to prevent contamination of the ground surface when accessing the tank interior.
- The contents of the USTs will be removed and the USTs cleaned in accordance with the referenced regulations. Depending on the volume of liquids within the tanks, the liquids will be removed by either employing a vacuum truck or manual methods. The liquids will be temporarily stored in the vacuum truck or labeled DOT 55-gallon drums pending disposal at an approved treatment, storage and/or disposal facility (TSDF). Any remaining liquids and/or sludge present within the tanks or appurtenances will be manually removed and placed in labeled DOT 55-gallon drums. Any personal protective equipment, clothing and polyethylene (i.e., PPE) will also be placed in a labeled DOT 55-gallon drum pending off-site disposal.
- The tanks will either be cleaned in place or removed from the excavation and then cleaned above grade. The removed tanks will be temporarily stored atop clean 6-mil polyethylene sheeting. Prior to entering the tanks for cleaning, an environmental meter will be lowered into each of the tanks to ensure an adequate presence of oxygen and to ensure that vapors within the tanks are not at such a concentration as to create an explosive atmosphere. The Contractor will

follow confined space entry procedures per 29 CFR Part 1910.146 upon entry into the tanks for cleaning.

- The tanks will either be cut up on-site or rendered unusable on-site by cutting a hole in them. The tanks, product and vent piping, and equipment will be properly salvaged off-site as scrap metal.
- The tanks and piping, tank wastes and PPE will be properly disposed of off-site as discussed in Section 2.9. The integrity of the tanks will be observed and photographs will be taken of the excavation and cleaned tanks for inclusion in the report.
- The excavation will be dewatered, as necessary, to facilitate the tank removals and excavation of petroleum impacted soil (Section 2.5). If dewatering is necessary, the dewatered groundwater will be temporarily pumped into a frac tank for subsequent testing and proper disposal depending on the laboratory analyses results as discussed in Section 2.9.
- The excavation will be backfilled as discussed in Section 2.5 after excavation of petroleum impacted soil.

## **2.5 Excavation of Petroleum Impacted Soils**

Petroleum impacted subsurface soils were encountered in the vicinity of the USTs based on PID meter headspace analysis screening results and organoleptic perception, and laboratory analyses results during C.T. Male's 2004 site investigation. The following procedures will be followed to address petroleum impacted soils within the tank excavation.

The extent of petroleum impacted soils to be excavated will be defined employing subjective methods of PID meter headspace analysis screening and organoleptic perception. The PID meter will be calibrated daily according to the manufacturer's specifications prior to use. Excavated petroleum impacted soils will be placed atop clean 6-mil polyethylene sheeting on the Site pending characterization and off-site disposal. The polyethylene sheeting will extend out at least 3 feet from the edge of the soil. The pile will be covered by pulling the excess sheeting up over the top of the soil and then covering the pile with 6-mil polyethylene sheeting. The sheeting will be

secured at the base and along its slope to hold the sheeting in place. These procedures will be followed to preclude soil erosion; soil contaminants from leaching and subsequently migrating to non-impacted areas of the Site and/or off-site; to preclude the accumulation of water (precipitation) within the soil pile; and to prevent the soils from being wind blown to other parts of the Site and/or off-site. Clean soil, as described in Section 2.4, above petroleum impacted soil will be segregated for reuse as backfill material. The staged petroleum impacted soils will be properly disposed of off-site as discussed in Section 2.9.

Once the petroleum impacted soil has been excavated and confirmatory soil sampling has been conducted as discussed in Section 2.6, the excavation will be backfilled with clean soil previously removed during the tank excavations, and run of bank sand and/or gravel and compacted to 95% Standard Proctor Density. The surface will be restored with 6-inches of NYSDOT Type 2 stone subbase compacted to 95% Standard Proctor Density, and asphalt pavement. Representative sample(s) of the clean soil previously removed from the tank excavation will be collected and analyzed in the laboratory as described in Section 2.6 prior to utilizing the soil as backfill material. The number of soil samples to be collected will depend on the quantity of clean soil excavated, and will be reviewed with NYSDEC for concurrence. In addition, a representative sample of the backfill and subbase materials will be submitted to an approved soils testing laboratory for gradation analysis and Standard Proctor Density compaction analysis. The asphalt pavement will be replaced in-kind.

## **2.6 Post UST Removal and Contaminated Soil Excavation Sampling and Laboratory Analyses**

Upon removal of the USTs and petroleum impacted soils, an assessment of the excavation will be made to determine the presence of any remaining petroleum impacted media. The assessment will include subjecting select soil samples taken from the excavation bottom and sidewalls to subjective analysis employing PID meter headspace analysis screening and organoleptic perception. A representative number of soil samples will be collected along field defined transects so that sampling for laboratory analysis may be biased to the suspected location of greatest residual contamination, if present. The soil sampling will be facilitated with the use of the excavation equipment and operator. The collected soil samples will be placed in new, clean Ziploc bags employing clean, nitrile gloves. The bags will be filled approximately

half full to allow space for the accumulation of organic vapors that may emit from the soils. The soil will be allowed to attain an ambient temperature prior to field screening analysis. The analysis will consist of shaking the bags, allowing the sample to equilibrate, and then inserting the micro tip of the PID meter into the bag within the space above the soils to measure for organic vapors. The PID headspace analysis readings, along with organoleptic perceptions will be recorded on Organic Vapor Headspace Analysis Logs. Results of the field screening will aid in differentiating between petroleum impacted and non-petroleum impacted soils within the excavation, will aid in determining whether additional petroleum impacted soil needs to be excavated, and will aid in the selection of sampling locations for laboratory analyses.

The analytical sampling format of the UST excavation will conform to Section 5.5(b)4(iv) of the NYSDEC Draft Division of Environmental Remediation - 10 Technical Guidance for Site Investigation and Remediation (DER-10) and Section 5.4(a)2(vi) of which the latter refers to Section 5.4(a)2(ii) if the tank excavation is enlarged horizontally beyond the immediate tank removal area and encompasses excavations 20 to 300 feet in perimeter, which state the following:

*Section 5.5(b)4(iv) - If there is evidence of a discharge: "A minimum of 5 soil samples should be taken, consisting of 4 side wall and 1 bottom sample for each 15 linear feet of trench".*

*Section 5.4(a)2(ii) - For excavations 20 to 300 feet in perimeter: "For subsurface spills, one sample from the bottom of each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area".*

The soil samples for laboratory analyses will be collected using new, clean sampling gloves, clean stainless steel trowel or equal method, and placed in laboratory provided glass jars with Teflon cap and sealed. Sampling personnel will wear a new, clean pair of disposable gloves for each sample location. At completion of the soil excavation, if groundwater is present within the excavation and there is a sheen or odor, a groundwater sample may be collected. If monitoring wells are installed, a groundwater sample from the tank excavation will not be collected. The groundwater sample(s), if necessary, will be collected from the tank excavation employing a clean, factory sealed disposable bailer with attached new, polypropylene rope. The sampling technician will don new, clean nitrile gloves when collecting the sample(s). The groundwater sample(s) for volatile organic compounds (VOCs) analysis will be collected in

laboratory-supplied pre-cleaned 40-milliliter (ml) glass vials with Teflon septum and screw-on cap and preserved with hydrochloric acid. The groundwater sample(s) collected for base/neutral semi-volatile organic compounds (SVOCs) analysis will be collected in laboratory-supplied pre-cleaned 1-litre amber glass sampling bottles with Teflon screw-on cap.

The sample container labels will be completed at the time of sampling along with an environmental services field log and chain of custody record to track sample collection until delivery to the analytical laboratory. The samples will be placed in a cooler with bagged ice and transport blank supplied by the laboratory. The samples will be analyzed on a total basis for NYSDEC STARS VOCs by EPA Method 8260 and for NYSDEC STARS base/neutral SVOCs by EPA Method 8270. The laboratory analyses will be performed by a NYSDOH ELAP certified laboratory. The quality assurance/quality control sampling to be performed is discussed within Section 2.10.

The soil sampling laboratory analyses results will be evaluated against the NYSDEC criteria presented in TAGM 4046, Determination of Soil Cleanup Objectives and Cleanup Levels.

## **2.7 Installation of Micro Monitoring Wells and Groundwater Sampling**

Depending on the findings during the removal of the USTs and petroleum impacted soils, a total of three (3) monitoring wells will be installed on the Site to aid in the collection of groundwater samples for laboratory analyses to determine potential impacts to groundwater, to determine the post UST and contaminated soil excavation quality of groundwater, and for the development of a groundwater contour map of the Site. Depending on whether potential environmental conditions are encountered in the interior of the building, an additional bore hole/monitoring well may be installed in the interior of the building.

One monitoring well each will be installed in an upgradient and down gradient location of the UST and contaminated soil excavation, while the third monitoring well will be installed within the excavation itself upon it being filled-in with appropriate backfill material. Installation of monitoring wells in these areas will serve to determine the quality of groundwater within and down gradient of the excavation and in a location

upgradient to the excavation to determine both the background quality of groundwater and to determine if there are potential impacts to the Site originating from off-site.

The wells will be installed utilizing a Geoprobe unit to a depth of approximately 15 to 17 feet depending on the depth of the excavation and the depth that groundwater is encountered. The wells will be installed approximately five to seven feet into the water table to allow for groundwater fluctuations. The micro wells will be constructed of one-inch diameter, flush-threaded joint, Schedule 40 PVC riser pipe, screen, bottom plug, and surface cap. The screen will be 0.010-inch slotted and generally ten feet in length. The annulus around the screen will be packed with filter sand (Filpro #0 or equal) to approximately one foot above the screen. A minimum one foot seal of hydrated bentonite will be placed in the annulus above the sand pack to a depth approximately one to two feet below grade and a cement bentonite grout installed above the seal to grade. A protective enclosure (i.e., flush mounted curb box with gasket and bolt down cover) will be installed over the well riser pipe and concreted in place.

Groundwater samples will be collected for laboratory analyses from the installed micro monitoring wells after the wells are developed and purged. The wells will be developed by surging the well using a peristaltic pump and new clean disposable tubing by oscillating the tubing up and down within the screened portion of the well and removing the fines with the peristaltic pump. After the monitoring wells have been developed, checked for free-product and a round of water levels collected, the monitoring wells will be purged a minimum of 3 well volumes or dry, allowed to recover to 90% of the initial depth to water and then a groundwater sample collected. For monitoring wells that recover slowly, the groundwater samples will be collected within three hours of purging the well, even if the well has not recovered to 90% of the initial depth to water. The wells will be purged either with a peristaltic pump using new clean tubing or with a new clean disposable bailer and new clean rope. The groundwater from developing and purging the wells will be collected in a labeled DOT 55-gallon drum and properly disposed of based on the laboratory analyses results of the sampled groundwater as discussed within Section 2.9.

After each well has recovered or within three hours of purging, a groundwater sample will be collected for the field parameters pH, specific conductivity and turbidity, and for volatile organic compounds (VOCs) and base/neutral semi-volatile organic compounds (SVOCs). The field parameters equipment will be calibrated prior to use in accordance

with the manufacturer's instructions. The groundwater sample(s) will be collected employing a clean, factory sealed disposable bailer with attached new, polypropylene rope. The sampling technician will don new, clean nitrile gloves when collecting the sample(s). The sample(s) for VOCs analysis will be collected in laboratory-supplied pre-cleaned 40-milliliter (ml) glass vials with Teflon septum and screw-on cap and preserved with hydrochloric acid. The sample(s) collected for SVOCs analysis will be collected in laboratory-supplied pre-cleaned 1-litre amber glass sampling bottles with Teflon screw-on cap. The sample container labels will be completed at the time of sampling along with a groundwater services field log and chain of custody record. The sample(s) will be placed in a cooler with bagged ice and transport blank supplied by the laboratory. The sample(s) and transport blank will be relinquished to the analytical laboratory. The sample(s) will be analyzed on a total basis for NYSDEC STARS VOCs by EPA Method 8260 and for NYSDEC STARS base/neutral SVOCs by EPA Method 8270. The laboratory analyses will be performed by a NYSDOH ELAP certified laboratory. The quality assurance/quality control sampling to be performed is discussed within Section 2.10.

The groundwater sampling laboratory analyses results will be evaluated against the regulatory standards and guidance values presented in 6 NYCRR Part 703.5 and TOGS (Technical and Operational Guidance Series) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

## **2.8 Decontamination Procedures**

The following decontamination procedures will be followed during the course of the field portion of the work:

- The bucket of the backhoe excavator will be decontaminated prior to the commencement of excavation activities, at the completion of excavation activities, and prior to and upon completion of the collection of discrete excavation soil samples. The excavator bucket will be decontaminated by first removing gross soil/debris that may have adhered to the bucket. The soil/debris will be placed within the staged petroleum impacted soil pile for disposal. The bucket will then be cleaned with a high-temperature high-pressure washer, or with non-phosphate (alconox) soap and tap water wash and rinsed with copious amounts of tap water. The bucket will be cleaned over the

contaminated soil pile and the rinse and wash water allowed to infiltrate the soils of the petroleum impacted soil pile. If the latter is not feasible, a temporary decontamination pad will be constructed and utilized for the collection of water generated as part of the decontamination effort. If a decontamination pad is utilized, the decontamination water will be collected and transferred to labeled DOT 55-gallon drum(s) for off-site disposal as discussed within Section 2.9.

- Manual soil sampling equipment including trowels, hand augers, etc. which come into contact with the Site's soils will be cleaned with a non-phosphate detergent/tap water wash, a tap water rinse and a deionized water rinse prior to sampling, in between each sample location and at completion of sampling.
- For the micro monitoring well installations, the Geoprobe equipment (tools, rods, macro-core sampler, etc.) will be cleaned with a non-phosphate detergent/tap water wash and tap water rinse prior to the start of the test bore holes, after each test bore hole/micro monitoring well installation, and at the completion of the micro monitoring well installations. Soil sampling equipment (i.e., macro-core sampler) will also be cleaned with a non-phosphate detergent/tap water wash and tap water rinse in between each soil sampling interval.
- The decontamination fluids will be allowed to infiltrate the soils of the petroleum impacted soil pile. If the latter is not feasible, the decontamination water will be collected in labeled DOT 55-gallon drum(s) for off-site disposal as discussed within Section 2.9.

## **2.9 Disposal of Remediation and Investigation-Derived Waste**

The remediation waste for this project will consist of the contents of the USTs and AST and associated tank cleaning wastes; the steel tanks and piping; petroleum impacted soil; potentially dewatered groundwater, if dewatering of the excavation is necessary; soil cuttings during the micro monitoring well installations; groundwater from the well development, purging and sampling; wash water from decontamination; and spent personal protective equipment.

The tank wastes and decontamination fluids (not released to the petroleum impacted soil pile) will be containerized and disposed of off-site based on the laboratory analyses results of the sample collected from Tank 005 during the 2004 investigations conducted

by C.T. Male. It is planned to recycle the steel tanks and piping off-site as scrap metal. The soil cuttings will be staged and disposed of with the petroleum impacted soil. Composite soil samples will be collected from within the petroleum impacted soil pile for laboratory analyses as required by the off-site disposal facility for waste characterization. The number of samples to be collected and the laboratory analyses to be performed will be dependant on the criteria of the disposal facility. The soil samples will be collected following the general sampling procedures discussed within Section 2.6. If dewatered groundwater is generated, representative samples of the groundwater from within the frac tank will be collected for laboratory analyses as required by the off-site disposal facility for waste characterization. The number of samples to be collected and the laboratory analyses to be performed will be dependant on the criteria of the disposal facility. The groundwater samples will be collected following the general sampling procedures discussed within Section 2.7.

The groundwater and decontamination fluids generated during groundwater sampling (well development and purging) will be containerized and disposed of off-site based on the laboratory analyses results of the groundwater samples collected. Additional waste characterization sampling and analyses (besides the results from the groundwater sampling) may be required depending on the disposal facility criteria. It is anticipated that the tank contents, which consists of petroleum contaminated water, the groundwater from development and purging of wells and the decontamination fluids will be able to be disposed of together.

Personal protective equipment (PPE) and expendable materials to be used during the completion of the field work tasks will likely include gloves, tyvek suits, disposable overboots, paper towels, plastic sheeting and disposable sampling equipment. These items that come into contact with soil and/or groundwater at the site will be temporarily placed in a labeled DOT 55-gallon drum pending disposal. It is planned to dispose of the PPE and expendable materials off-site with the petroleum impacted soil.

The containers of waste will be staged on-site until appropriate waste characterization and disposal. The containers will be labeled and secured with caution tape. Waste characterization profiles will be completed for the waste generated and submitted to the treatment, storage or disposal facility (TSDF), as applicable, for processing. A copy of the TSDFs operating permit, the scrap metal yards operating permit, and the transporters' 6 NYCRR Part 364 transporter permit will be obtained and reviewed prior

to any shipments of waste from the site to ensure the appropriate permits are in place prior to waste being removed from the site.

The wastes generated as part of this project will be removed from the site, transported by a 6 NYCRR Part 364 permitted waste transporter and disposed of at a treatment, storage or disposal facility permitted to accept the wastes being delivered. A waste manifest or bill of lading will be utilized for each shipment of waste. A bill of lading will also be utilized for the scrap metal transported off-site.

Manifests and bills of lading, as applicable, signed by the disposal facility and weight tickets for disposal of the scrap metal and petroleum impacted soil will be obtained and included in the report along with a copy of the TSDF operating permit and transporter permit.

## **2.10 Quality Assurance and Quality Control Protocols**

### **2.10.1 Project Organization and Responsibilities**

C.T. Male Associates, P.C. is responsible for the overall administration and the overall quality control/quality assurance of the IRM. These will include project management, coordination and scheduling of activities in-house and with qualified subcontractors. The work tasks that will be performed by subcontractors under C.T. Male's supervision include: 1) removal and proper disposal of four (4) USTs and one aboveground storage tank (AST) with affiliated appurtenances, excavation and proper disposal of petroleum impacted soils, and transportation and disposal of remediation derived wastes by the tank closure subcontractor; 2) installation of micro monitoring wells employing a Geoprobe unit by the Geoprobe subcontractor; 3) analytical laboratory testing by the laboratory services subcontractor; and 4) data validation of groundwater samples by the data validator subcontractor.

### **2.10.2 Quality Control Checks**

To monitor and document the integrity of such factors as sample variability, sampling equipment cleanliness, sampling technique, analytical reproducibility and sample handling which can affect data quality, several field quality control checks will be implemented. These will include taking equipment/field blanks after the sampling equipment has been decontaminated to check for cross contamination and equipment

cleanliness; taking replicate samples to monitor analytical precision/reproducibility and sampling technique; and preparing transport blanks to be transported with the sample containers for volatile analyses to monitor sample handling. For this project the field Quality Control (QC) checks will consist of one equipment/field blank, and one replicate sample, during sampling activities for every twenty (20) analytical samples per media type (i.e. soil, groundwater). A transport blank will be prepared for each sample set to be submitted for volatile analyses.

Laboratory quality control checks will be those specified in EPA Methods or in the NYSDEC ASP (Revised 2000) for the analytical method performed and could consist of some of the following:

- Blanks (method, preparation),
- initial and continuing calibrations,
- surrogate spikes,
- matrix spikes/matrix spike duplicates,
- duplicate samples, and
- control samples/matrix spike blanks.

The laboratory will be responsible for performing what is necessary for complying with appropriate standards and certifications of the selected EPA method and ASP requirements. The laboratory quality control acceptance criteria is method specific and will be the laboratory's responsibility to meet ASP (Revised 2000) criteria.

### 2.10.3 Sample Preparation and Analytical Procedures, and Reporting

The analytical parameters, sample preparation and analysis methods, acceptable holding times and required method detection limits are presented in Table 1. The analytical methods specified reflect the requirements of the NYSDEC ASP, Revised June 2000.

**Table 1  
Analytical Methods and Requirements**

Analytical Parameters	EPA Method	Holding Times <sup>(2)</sup>	Contract Required Quantitative Limits (as noted) <sup>(1)</sup>
Volatile Organic Compounds	8260	Soil: 10 Days Water: 7 Days	10-100 ug/kg (Soil) 1 to 10 ug/l (Water)
Base/Neutral Semi-Volatile Organic Compounds	8270	5 Days to Extraction, 40 Days to Analyze	330 to 800 ug/kg (Soil) 10-25 ug/l (Water)

**Note:**

- 1) The listed method detection limits are practical quantitation limits (PQLs). The method detection limit (MDL) is the best possible detection. Laboratories report PQLs which are typically 4 times the MDL for liquids and varies for solids depending on the quantity of contamination present. Efforts will be made to obtain the lowest possible detection limit. When the guidance value or standard value is below the detection limit, achieving the detection limit will be considered acceptable for meeting that guidance or standard value.
- 2) Holding times are relative to the verifiable time of receipt at the laboratory.

Where matrix interference is noted, analytical clean-ups will be required to be performed by the laboratory following the procedures specified in SW-846 or the NYSDEC ASP, as applicable. In general, samples shall not be diluted more than 1 to 5.

Because the locations of the proposed excavation soil samples and groundwater sampling locations will be determined upon removal of the tanks and petroleum impacted soils, the sampling locations have not been identified on the Site Plan Sketch of Existing Conditions, Figure 3.

A NYSDEC Analytical Services Protocol (ASP) Category A data deliverable package will be prepared for the laboratory analyses associated with the UST closures. An ASP Category B data deliverable package is not required for confirmatory samples associated with UST closure projects per DER-10 Section 2.1(f)(i), and therefore data validation by an independent third party is not required for these samples.

An ASP Category B data deliverable package will be prepared for the laboratory analyses associated with the groundwater sampling of the micro monitoring wells being installed. The ASP Category B data deliverable package will be subjected to data validation by an independent third party data validator. The data validation will be performed in accordance with the USEPA National and Regional Validation Guidelines/Procedures and the NYSDEC Guidance for the Development of Data

Usability Summary Reports to determine the applicable qualifications of the data. The data validator will then prepare a NYSDEC Data Usability Summary Report (DUSR) in accordance with NYSDEC guidelines.

Internal data validation will be performed by the laboratory QA officer for both ASP Category A and Category B data deliverable packages to ensure that the data package is complete and meets the criteria to the IRM work plan. Any problems encountered in performing the analyses by the laboratory such as out of limits surrogate recoveries, and comments on the quality and limitations of specific data and the validity of the data will be described in the case narrative of the laboratory report.

### 3.0 REPORTING AND SCHEDULE

Per DER-10 Sections 5.5 and 5.8, a Tank Closures and Remedial Actions Report (RAR) will be prepared for the work completed at the Site. The report will include a discussion of the IRM work completed including a summary of the work procedures, the number of tanks removed, the quantity of contaminated soil removed and site backfill and restoration activities; any changes to the work plan; a listing of the waste streams, quantity of materials disposed of and where they were disposed of; tabulated results of the post-excavation soil sampling and laboratory analyses compared to the TAGM 4046, Determination of Soil Cleanup Objectives and Cleanup Levels; tabulated groundwater results compared to NYSDEC groundwater standards and guidance values presented in 6 NYCRR Part 703.5 and TOGS 1.1.1; whether additional remedial actions are warranted; photographs of the UST/AST removal process; Site Location Map; As-Built Site Plan and Boundary Survey Map showing the tank locations, horizontal limits of contaminated soil removed, confirmatory soil sampling locations and benchmark; groundwater contour map; ASP Category A data deliverable package for the post-excavation soil sampling laboratory analyses; ASP Category B data deliverable package for the groundwater sampling laboratory analyses; chain of custody records; subsurface exploration logs and monitoring well construction logs; organic vapor headspace analysis logs; waste characterization profiles and TSDF approvals; TSDF operating permits; transporter permits; and waste manifests, bills of lading and weight tickets.

The planimetric and boundary survey is planned to be conducted in April 2005, after all the snow is gone. Upon NYSDEC approval of the IRM Work Plan, anticipated in April 2005, competitive bids from subcontractors will be obtained for the tank closure and soil remediation work, and laboratory analysis services. It is anticipated that site activities would commence in late May or June 2005 and be completed within 90 days including the waste transportation and disposal. Analytical results of sampled media will take approximately three weeks to complete. A Draft Tank Closures and Remedial Action Report will be prepared and submitted within 45 days of completion of the IRM activities (including waste transportation and disposal) and receipt of analytical laboratory data. The Final Tank Closures and Remedial Action Report will be completed within 2 to 4 weeks after receipt of NYSDEC final comments.

Prior to the start of the tank closure work, a PBS application notifying NYSDEC of the tank closures will be submitted to the NYSDEC in accordance with 6 NYCRR Part 613.9(c). The NYSDEC Department of Environmental Remediation (DER) will also be given 10 days notice prior to the start of the tank closure work in accordance with DER-10 Section 5.5(b)1.

Periodic progress reports will be submitted to NYSDEC and include a description of work completed during the reporting period, problems encountered and how resolved, results of sampling and tests, work anticipated during the next reporting period, description of projected changes to the scope of work and changes to the approved work plan, citizen participation activities, and schedule changes.

#### **4.0 SITE SPECIFIC HEALTH AND SAFETY PLAN**

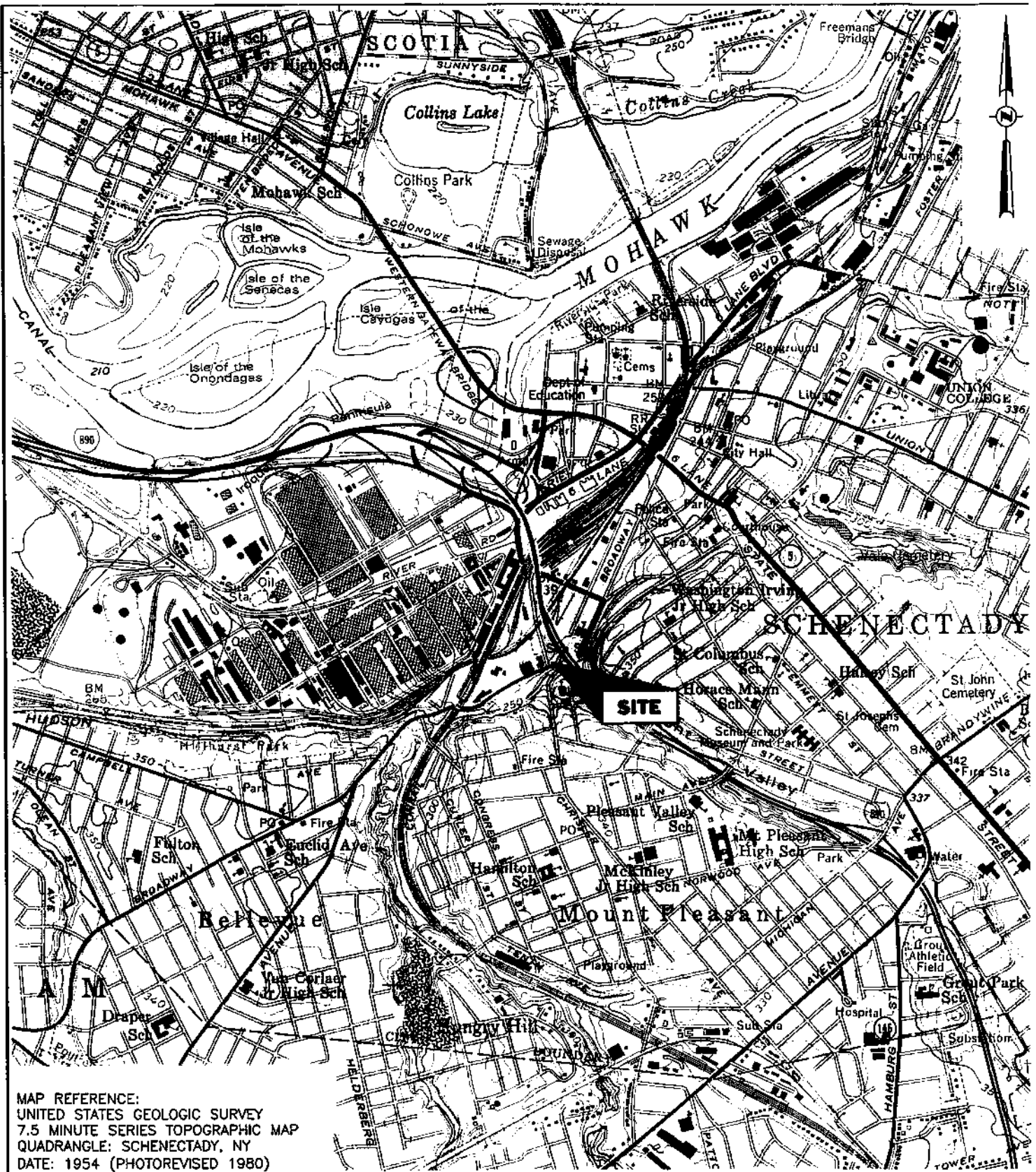
A Site Specific Health and Safety Plan (HASP) has been prepared for this project and is included as Attachment A. The HASP addresses site worker health and safety issues and includes a section on community health and safety and air monitoring. Although the plan addresses all of the site activities to be performed, the subcontractors to be utilized will be required to submit their HASP relative to work they will be performing in compliance with 29 CFR Part 1910.120. C.T. Male's on-site employees and the Contractor's on-site employees will have completed the OSHA 40-hour HAZWOPER training with all ensuing refresher courses.

There will be a designated Health and Safety Officer (HSO) for this project who will be involved in the daily field work activities. The HSO or designee will retain a copy of the HASP at the site during implementation of interim remedial measures and field investigations, if performed. The HSO will also control and maintain safe distances for protection of surrounding residences or innocent bystanders.

## 5.0 CITIZEN PARTICIPATION PLAN

A project specific Citizen Participation (CP) Plan has been developed for this project and is included as Attachment B. The objective of the CP Plan is to disseminate information to the public regarding various phases of the IRM program to involve the public in the decision making process. This is accomplished by keeping the public informed through direct mailing, periodic community meetings, as warranted, public notice in local newspapers and other publications, and by having project documents available for review at public accessible repository locations. The CP Plan should be considered an integral part of this Work Plan and may be modified as necessary throughout the completion of the project. The CP Plan relies on involvement from NYSDEC, where necessary, to assist in public involvement.

**FIGURE 1**  
**SITE LOCATION MAP**



MAP REFERENCE:  
 UNITED STATES GEOLOGIC SURVEY  
 7.5 MINUTE SERIES TOPOGRAPHIC MAP  
 QUADRANGLE: SCHENECTADY, NY  
 DATE: 1954 (PHOTOREVISED 1980)

Date	RECORD OF WORK	Appr.
Drafter: JAM	Checker:	
Appr. by:	Proj. No. 04.9133	

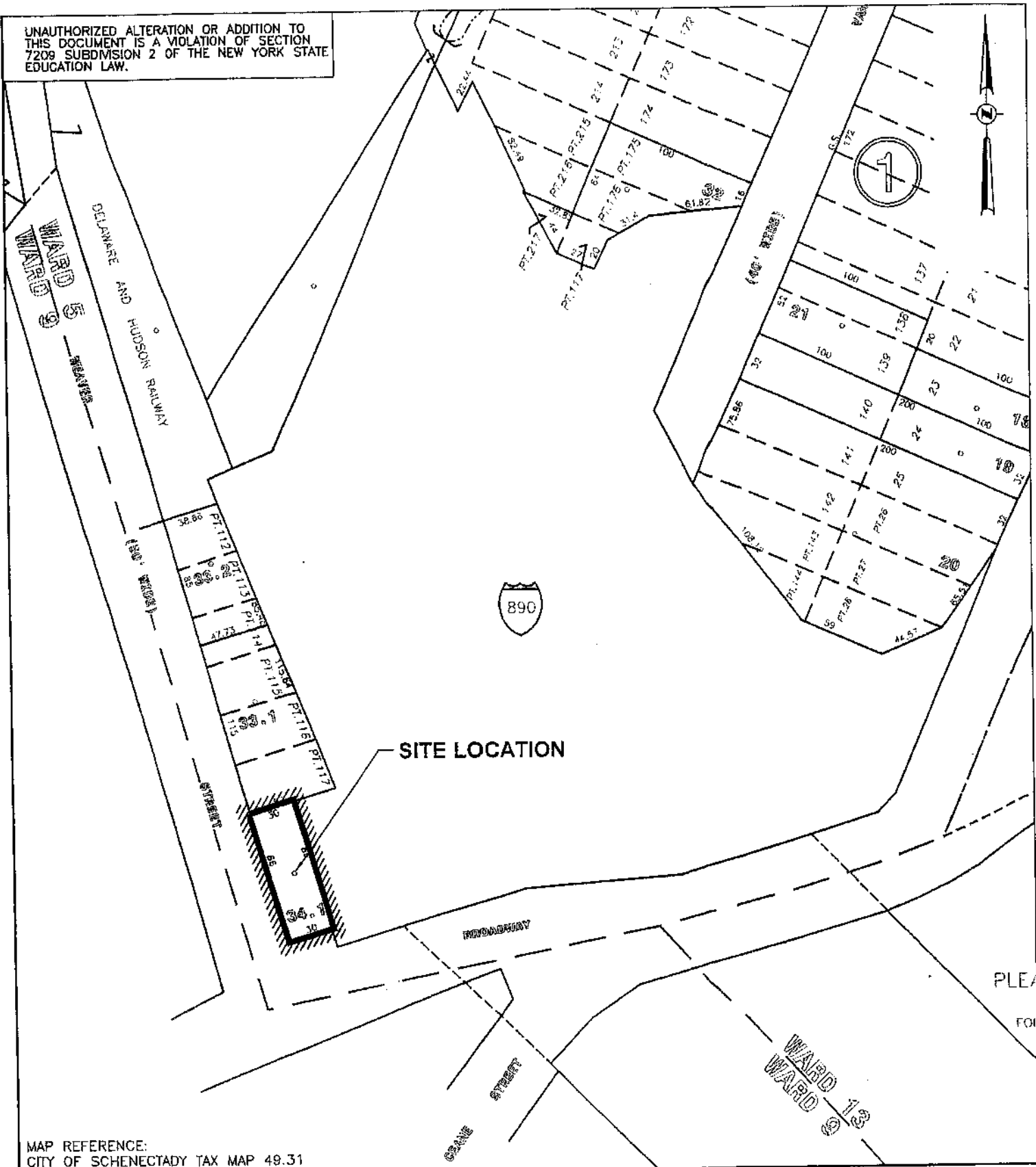
**FIGURE 1**  
**SITE LOCATION MAP**  
**714 BROADWAY SITE**

CITY OF SCHENECTADY	SCHENECTADY COUNTY, NY
<b>C.T. MALE ASSOCIATES, P.C.</b> 50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110 518.786.7400 * FAX 518.786.7299	
Architecture & Building Systems Engineering * Civil Engineering Environmental Services * Survey & Land Information Services	
SCALE: ±1"=2,000'	DATE: MARCH 2004

**FIGURE 2**  
**CITY TAX MAP**

NO XREFS

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SITE LOCATION

MAP REFERENCE:  
CITY OF SCHENECTADY TAX MAP 49.31

FIGURE 2  
CITY OF SCHENECTADY TAX MAP  
714 BROADWAY SITE

CAD DWG. FILE NAME: TAX MAP.DWG

Date	RECORD OF WORK	Appr.
Drafter: JAM	Checker:	
Appr. by:	Proj. No. 04.9133	

CITY OF SCHENECTADY      SCHENECTADY COUNTY, NY

**C.T. MALE ASSOCIATES, P.C.**

50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110  
518.786.7400 \* FAX 518.786.7299

Architecture & Building Systems Engineering \* Civil Engineering  
Environmental Services \* Survey & Land Information Services




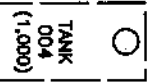
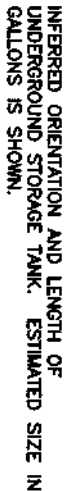
SCALE: NOT TO SCALE      DATE: MARCH 2004

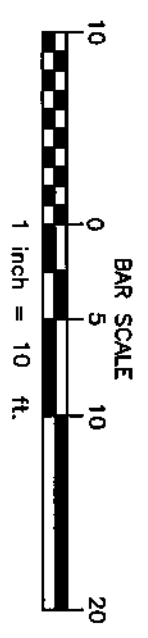


**FIGURE 3**

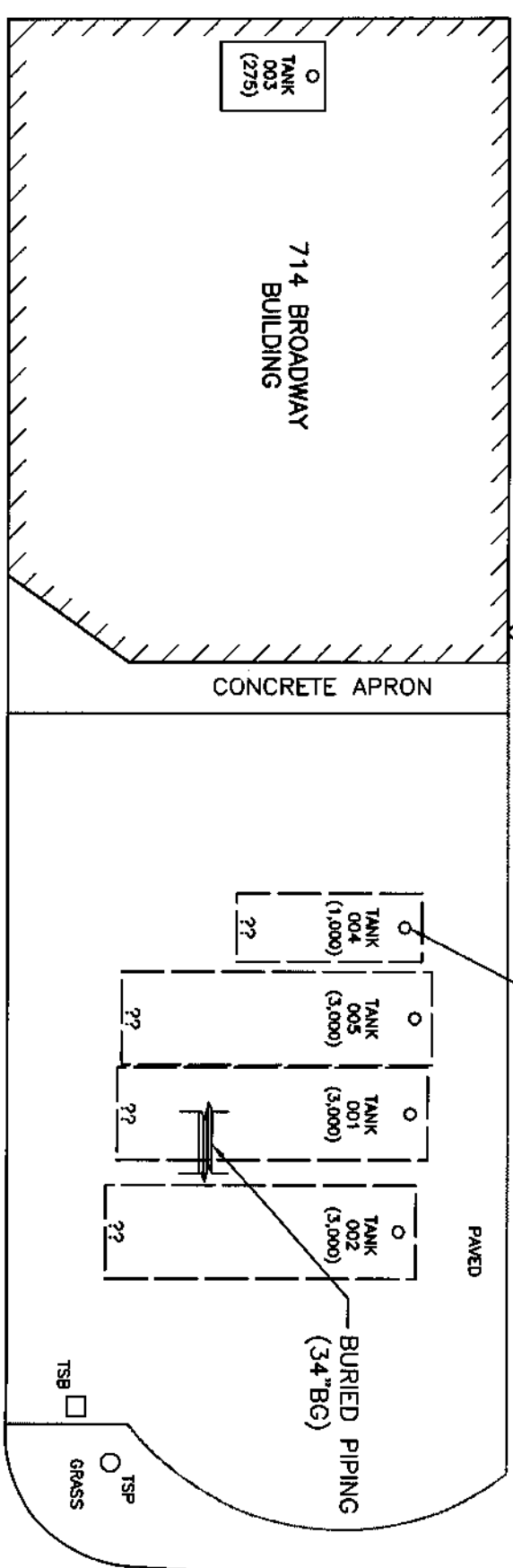
**SITE PLAN SKETCH OF EXISTING CONDITIONS**

LEGEND

-  APPROXIMATE LOCATION OF UTILITY POLE.
-  APPROXIMATE LOCATION OF TRAFFIC SIGNAL BOX.
-  APPROXIMATE LOCATION OF TRAFFIC SIGNAL POLE.
-  TANK 004 (1,000) 22
-  INFERRED ORIENTATION AND LENGTH OF UNDERGROUND STORAGE TANK. ESTIMATED SIZE IN GALLONS IS SHOWN.



WEAVER STREET



BROADWAY

NOTE:  
THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

DATE	REVISIONS RECORD/DESCRIPTION	DRAFTED	CHECK	APPR.
1				
2				
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DESIGNED :  
C.T. MALE ASSOCIATES P.C.  
2005

DRAFTED : J.MARX

CHECKED : EWR

PROJ. NO: 05.5086  
SCALE : 1"=10'±  
DATE : MAR. 30, 2005

**FIGURE 3  
SITE PLAN SKETCH OF EXISTING CONDITIONS**

**DEC ENVIRONMENTAL RESTORATION PROJECT  
714 BROADWAY SITE**

CITY OF SCHENECTADY

**C.T. MALE ASSOCIATES, P.C.**

50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110  
518.786.7400 \* FAX 518.786.7299  
ARCHITECTURE & BUILDING SYSTEMS ENGINEERING \* CIVIL ENGINEERING  
ENVIRONMENTAL SERVICES \* SURVEY & LAND INFORMATION SERVICES

SCHENECTADY COUNTY, NY

SHEET 1 OF 1  
DWG. NO:

**ATTACHMENT A**

**SITE SPECIFIC HEALTH AND SAFETY PLAN  
714 BROADWAY SITE  
CITY OF SCHENECTADY  
SCHENECTADY COUNTY, NEW YORK**

**SITE SPECIFIC HEALTH AND SAFETY PLAN  
714 BROADWAY SITE  
CITY OF SCHENECTADY  
SCHENECTADY COUNTY, NEW YORK**

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**SITE SPECIFIC HEALTH AND SAFETY PLAN  
714 BROADWAY SITE  
CITY OF SCHENECTADY  
SCHENECTADY COUNTY, NEW YORK**

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**FIGURES**

Figure 1:	Map Showing Route to Ellis Hospital With Directions
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**APPENDICES**

Appendix A:	Training Certificates and Medical Surveillance For Authorized Site Workers
Appendix B:	Medical Data Sheets Completed by Authorized Site Workers

## 1.0 GENERAL

### 1.1 Overview

This Health and Safety Plan (HASP) has been prepared for use during implementation of Interim Remedial Measures (IRMs) at the 714 Broadway site ("the Site") located at 714 Broadway in the City of Schenectady, Schenectady County, New York. This HASP has been developed by C.T. Male Associates, P.C. (C.T. Male) as an integral part of the IRM under the Environmental Restoration Program (ERP). The IRMs are being conducted for closure of underground storage tanks (USTs) and an aboveground storage tank (AST); for excavation of petroleum contaminated soils; and to define the potential for petroleum impacted groundwater.

A designated Health and Safety Officer (HSO) will be responsible for implementing this HASP during the completion of the field work. All C.T. Male persons or parties who enter the work area (support, decontamination, and exclusion zone) must review, sign and comply with this HASP. A list of individuals authorized to enter the exclusion zone at the Site is presented in Section 13.0 of this HASP. A copy of this HASP will be maintained at the work area throughout the duration of the project. A complete description of the proposed IRMs is presented in the ERP Interim Remedial Measures Work Plan. A brief description of the proposed scope of work is outlined below:

#### Interim Remedial Measures:

- Closure by removal of existing USTs and associated piping located on southern portions of the Site;
- Excavation and disposal of petroleum impacted soils in the vicinity of the UST locations;
- A determination of impacts to groundwater in affiliation with the historic existence of USTs; and
- Removal of an existing AST and associated piping located within the Site building.

**1.2 Contact Names and Numbers**

For this project, the following New York State Department of Environmental Conservation (NYSDEC), New York State Department of Health (NYSDOH), City of Schenectady, C.T. Male, and Emergency Response names and telephone numbers are presented below as Site contacts.

**NYSDEC CONTACTS:**

CENTRAL OFFICE PROJECT MANAGER: Lawrence J. Alden, P.E. (518) 402-9818  
Division of Environmental Remediation  
625 Broadway, 12<sup>th</sup> Floor  
Albany, New York 12233

SECTION CHIEF: Michael J. Komoroske, P.E. (518) 402-9818  
Division of Environmental Remediation  
625 Broadway, 12<sup>th</sup> Floor  
Albany, New York 12233

**CITY OF SCHENECTADY CONTACT:**

CITY ENGINEER: Bernard Sisson, P.E. (518) 382-5082  
City of Schenectady  
Dept. of Engineering and Public Works  
City Hall Room 205  
105 Jay Street  
Schenectady, New York 12305

**NYSDOH CONTACT:**

TECHNICAL LEAD: Tamara S. Girard (518) 402-7860  
NYS State Department of Health  
Bureau of Environmental Exposure Investigation  
Flanigan Square, 547 River Street  
Troy, New York 12180

BUREAU DIRECTOR: Gary Litwin (518) 402-7850  
NYS Department of Health  
Bureau of Environmental Exposure Investigation  
Flanigan Square, 547 River Street, Troy, New York 12180

**CONSULTANT CONTACTS:**

CONSULTING ENGINEER: C.T. Male Associates, P.C. (518) 786-7400  
50 Century Hill Drive  
Latham, New York 12110  
David Roecker, P.E, Project Principal (518) 786-7491  
Elizabeth Rovers, P.E., Project Manager (518) 786-7492  
Jeffrey Marx, P.E., Project Engineer and  
Health & Safety Coordinator (518) 786-7548  
Numeric Pager: (518) 437-2459

**EMERGENCY PHONE NUMBERS:**

EMERGENCY: Emergency 911  
PERSONAL INJURY Ellis Hospital (518) 243-4000  
NON-EMERGENCY: 1101 Nott Street  
Schenectady, New York 12308  
FIRE DEPARTMENT: Emergency 911  
Schenectady Fire Department (518) 372-0290  
Third Avenue  
Schenectady, New York 12303  
POLICE: Emergency 911  
Schenectady Police Department (518) 382-5264  
Liberty and Lafayette Streets  
Schenectady, New York 12305  
CENTRAL NEW YORK POISON CONTROL CENTER: Central New York Poison Control Center (800) 222-1222  
750 East Adams Street Admin # (315) 464-7078  
Syracuse, New York 13210  
NATIONAL RESPONSE CENTER: c/o United States Coast Guard (G-OPF) (800) 424-8802  
2100 2nd Street, Southwest - Room 2611  
Washington, DC 20593-0001

## **2.0 HEALTH AND SAFETY PERSONNEL**

The Health and Safety Officer (HSO) will be responsible for implementation of the HASP and the delegation of health and safety duties. The HSO will coordinate the resolution of safety issues, which arise during Site work. When field operations are Level D it will not be necessary for the HSO to be present on-Site at all times. When the HSO is not present on-site, a designee will be authorized to perform the duties of the HSO. The designee will be responsible for implementation of the HASP.

The HSO or designee has stop work authorization which the HSO or designee will execute upon the HSO or designee's determination of an eminent safety hazard, emergency situation or other potentially dangerous situations (e.g. weather conditions), when this action is deemed appropriate. Authorization to resume work will be issued by the HSO.

### **3.0 SITE LOCATION AND DESCRIPTION**

The Site is located at 714 Broadway in the City of Schenectady, Schenectady County, New York. The Site is rectangular in shape and has approximately 86 feet of frontage along the east side of Weaver Street and approximately 30 feet of frontage along the north side of Broadway. An approximate 1,100 square foot abandoned two-story building is located on northern portions of the site while asphalt paved areas make up southern portions of the site.

#### **4.0 POTENTIAL SITE CONTAMINANTS**

It is inferred that the site may have been impacted through its historical use and operation as a gasoline service station. A 2004 investigation of the Site revealed the presence of four USTs and one AST at the Site. Further investigation of the USTs depicted the presence of petroleum contaminated water within the interior of three of the USTs. A subsurface investigation revealed the presence of petroleum impacted soil in the vicinity of the USTs.

Based upon the history of the Site use and analytical data collected to date, the potential Site contaminants of concern are anticipated to be the following chemicals:

- Petroleum Products
- Volatile Organic Compounds

## **5.0 HAZARD ASSESSMENT**

### **5.1 General**

The hazard assessment, use of specific protective equipment, and monitoring associated with each field work task of the investigation work to be conducted at the subject Site are presented in following subsections.

For this project, C.T. Male will use subcontractors for the completion of the UST/AST removals, excavation of petroleum impacted soils, and installation of micro monitoring wells. Each subcontractor will be responsible for developing and implementing a Site specific health and safety plan for their activities, for protection of their employees, and use of personal protective equipment. The subcontractor will also be responsible for developing and following their own Respiratory Protection Program, as applicable.

### **5.2 Subsurface Work**

Soil excavation to access the USTs, removal of the USTs, excavation and removal of petroleum impacted soil, and a groundwater assessment (including the installation of monitoring wells) are planned activities at the site. The potential hazards to personnel during this work are dermal contact and a low potential for vapor inhalation of potential site contaminants. Level D protection (as defined in Section 8.0) should be sufficient to protect against dermal contact during excavation of and/or handling of the subsurface soils and groundwater. If organic vapors are present at the action levels described in Section 5.5, on the basis of organic vapor monitoring of the area during the work, it may be necessary to upgrade to Level C protection (as defined in Section 8.0) including respiratory protection.

### **5.3 Community Air Monitoring Plan**

A Community Air Monitoring Plan (CAMP) will be followed during ground intrusive field activities. The intent of the CAMP is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of

investigative and remedial work activities. The CAMP will monitor the air for potentially contaminated dust (particulate air monitoring, see Section 5.3.1) and volatile organic compound vapors (VOC Air Monitoring, see Section 5.3.2) at the downwind perimeter of each designated work area. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

### 5.3.1 Particulate Air Monitoring

C.T. Male will utilize two real-time particulate monitors capable of continuously measuring concentrations of particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less). The instruments will be placed at temporary monitoring stations based on the prevailing wind direction each day, one upwind and one downwind of the work area. The particulate monitoring instruments will be capable of displaying the short term exposure limit (STEL) or 15 minute averaging period, which will be field checked and recorded for comparison to the NYSDOH Generic Community Air Monitoring Plan action levels for PM-10, as listed below. The particulate readings will be manually monitored, but the instruments are programmed to alarm at preset action levels. Instantaneous readings will be recorded periodically throughout the work day. At the end of each day, the readings for each instrument will be downloaded to a PC and retained for future reference and reporting.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter ( $\text{mcg}/\text{m}^3$ ) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150  $\text{mcg}/\text{m}^3$  above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150  $\text{mcg}/\text{m}^3$  above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150  $\text{mcg}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

In the event of poor weather such as heavy snow or rain, particulate monitoring will not be performed for protection of instrumentation. These weather conditions would limit the effectiveness of the sensitive monitoring equipment and likely suppress particulate generation. Work activities will be halted if fugitive dust migration is visually observed for a sustained period of time.

### 5.3.2 VOC Air Monitoring

The potential contaminants for the subject site include petroleum products, which are volatile and semi-volatile organic compounds that have the potential to release to the environment when disturbed. Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area on a periodic basis. Upwind concentrations will also be measured at the start of the work day and periodically thereafter to evaluate the site's background conditions. A MiniRAE 2000 handheld VOC monitor will be used to perform the VOCs monitoring. This unit is capable of displaying the STEL (15 minute averaging period) which will be field checked and recorded for comparison to the NYSDOH Generic Community Air Monitoring Plan action levels for VOCs, as listed below. The VOC readings (STEL) will be manually recorded for future reference and reporting. Instantaneous readings will be recorded periodically throughout the work day.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

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

#### 5.4 Respiratory Protection

During the completion of excavation and test bore holes (micro monitoring wells), the ambient air in the work area will also be monitored with the MiniRAE 2000 PID prior to the start of work and periodically as conditions warrant. If a concentration (sustained for 5 minutes) of total volatile compounds is detected within the work area on the instrument, relative to an isobutylene standard, the level of personal protective equipment (PPE) protection will be upgraded as summarized in Table 5.4-1. If a concentration greater than 15 ppm, work will cease immediately and the situation will be evaluated prior to continuation of work.

<b>Action Level</b>	<b>Level of PPE</b>	<b>Type of Respiratory Protection</b>
0-10 parts per million	Level D	No respiratory protection
10-15 parts per million	Level C	Negative pressure half-face or full face respirator with combination organic vapor/particulate cartridge
15-50 parts per million	Cease Work	Evaluate work procedure
Greater than 100	Cease Work	Evaluate work procedures

-Facial hair is not permitted while wearing most respirators.

-Workers required to wear a respirator must have a minimum of OSHA 40 Hour training with current medical monitoring and fit test documentation.

#### 5.5 Groundwater Sampling

Groundwater sampling will consist of utilizing a low flow pump and tubing or bailer to extract a groundwater sample from proposed monitoring wells. The potential hazards to personnel during this work are dermal contact and a remote potential for vapor inhalation of potential Site contaminants. Level D protection should be sufficient to protect against dermal contact during handling of the groundwater. The protection should also include safety glasses to prevent the hazard of dermal contact to the eyes through incidental spillage or splashing of potentially contaminated groundwater.

### 5.6 UST Excavation Sampling

Soils and potentially groundwater will be sampled from the excavation upon removal of the USTs and petroleum contaminated soil. The potential hazards to personnel during this work are dermal contact and a remote potential for vapor inhalation of potential Site contaminants. Level D protection should be sufficient to protect against dermal contact during handling of the soils and groundwater. The protection should also include safety glasses to prevent the hazard of dermal contact to the eyes.

### 5.7 Hazard Identification and Control

Table 5.7-1 presents generalized hazards potentially involved with the tasks to be completed on this project. Table 5.7-1 also identifies general procedures to follow to prevent or reduce accident, injury or illness. Any worker on-site who identifies a potential hazard must report the condition to the HSO or designee, and initiate control of the hazardous condition.

<b>Table 5.7-1 Potential Hazards and Control</b>	
<b>Potential Hazard</b>	<b>Control</b>
Vehicular Traffic	<ol style="list-style-type: none"> <li>1. Wear safety vest when vehicular hazards exist.</li> <li>2. Use cones, flags, barricades, and caution tape to define work area.</li> <li>3. Use vehicle to block work area.</li> <li>4. Contact police for high traffic situations.</li> </ol>
Slip, Trip, and Fall Protection	<ol style="list-style-type: none"> <li>1. Assess work area to determine if there is a potential for falling.</li> <li>2. Make sure work area is neat and tools are staged in one general area.</li> <li>3. Wear steel-toe boots with adequate tread and always watch where the individual is walking. Carry flashlight when walking in poorly lighted areas.</li> </ol>
Inclement Weather	<ol style="list-style-type: none"> <li>1. Stop outdoor work during electrical storms and other extreme weather conditions such as extreme heat or cold temperatures.</li> <li>2. Take cover indoors or in vehicle.</li> <li>3. Listen to local forecasts for warnings about specific weather hazards such as tornadoes, hurricanes, and flash floods.</li> </ol>

<b>Table 5.7-1 Potential Hazards and Control</b>	
<b>Potential Hazard</b>	<b>Control</b>
Utility Lines Contact	<ol style="list-style-type: none"> <li>1. Contact UFPO to have utility lines marked prior to any underground excavation, trenching or drilling. UFPO must be contact at least 72 hours prior to work.</li> <li>2. Refer to Site drawings for utility locations.</li> <li>3. Manually dig 3 to 5 feet below grade and 5 feet on each side of utility marked to avoid breaking utility lines.</li> </ol>
Noise	<ol style="list-style-type: none"> <li>1. Wear hearing protection when heavy equipment is operating on-site.</li> <li>2. Wear hearing protection whenever you need to raise your voice above normal conversational speech due to a loud noise source; this much noise indicates the need for protection.</li> <li>3. Hearing protection is required when measured sound exceeds 85 decibels (dB) where employees stand or conduct work.</li> </ol>
Electrical Shock	<ol style="list-style-type: none"> <li>1. Maintain appropriate distance between heavy equipment and overhead utilities; 20 foot minimum clearance from power lines; and 10 foot minimum clearance from shielded power lines.</li> <li>2. Contact local underground utility locating service prior to penetrating the ground surface.</li> </ol>
Physical Injury	<ol style="list-style-type: none"> <li>1. Wear hard hats and safety glasses at all times when on-site.</li> <li>2. Maintain visual contact with equipment operators and wear orange safety vest when heavy equipment is operating on-site.</li> <li>3. Avoid loose clothing when working around rotary equipment.</li> <li>4. Keep hands and feet away from drilling augers and excavation equipment tracks/tires.</li> <li>5. Test emergency shut-off switches on drill rigs and excavation equipment regularly.</li> </ol>
Back Injury	<ol style="list-style-type: none"> <li>1. Use a mechanical lifting device or a lifting aid where appropriate.</li> <li>2. Make sure the route is free of obstructions.</li> <li>3. Bend at the knees and use leg muscles when lifting.</li> <li>4. Use the buddy system if lifting heavy or awkward objects.</li> <li>5. Do not twist or jerk your body when lifting.</li> </ol>

<b>Table 5.7-1 Potential Hazards and Control</b>	
<b>Potential Hazard</b>	<b>Control</b>
Fire Control	<ol style="list-style-type: none"> <li>1. Smoke only in designated areas.</li> <li>2. Keep flammable liquids in closed containers.</li> <li>3. Isolate flammable and combustible materials from ignition sources.</li> <li>4. Keep fire extinguisher nearby and use only if deemed safe.</li> </ol>
Heat Stress	<ol style="list-style-type: none"> <li>1. Increase water intake while working.</li> <li>2. Avoid excessive alcohol intake the night before working in heat stress situations.</li> <li>3. Increase number of rest breaks, as necessary and rest in a shaded area.</li> <li>4. Watch for signs and symptoms of heat exhaustion and fatigue.</li> <li>5. Rest in cool, dry areas.</li> <li>6. In the event of heat stress or heat stroke, bring the victim to a cool environment and call 911.</li> </ol>
Well Installation, Development, and Soil and Groundwater Sampling	<ol style="list-style-type: none"> <li>1. Wear appropriate PPE to avoid skin, eye, and inhalation contact with potentially contaminated soil and/or groundwater.</li> <li>2. Stand upwind to minimize possible inhalation exposure, especially when opening monitoring wells.</li> <li>3. Conduct air monitoring, whenever necessary to determine level of respiratory protection.</li> <li>4. If necessary, employ engineering controls to assist in controlling chemical vapors.</li> </ol>
Media Sampling (water and soil)	<ol style="list-style-type: none"> <li>1. Wear appropriate PPE to avoid skin, eye, and inhalation contact with contaminated media.</li> <li>2. Stand upwind to minimize possible inhalation exposure, especially when opening monitoring wells or closed containers/vessels.</li> <li>3. Conduct air monitoring, whenever necessary to determine level of respiratory protection.</li> <li>4. If necessary, employ engineering controls to assist in controlling chemical vapors.</li> </ol>

<b>Table 5.7-1 Potential Hazards and Control</b>	
<b>Potential Hazard</b>	<b>Control</b>
Cleaning Equipment	<ol style="list-style-type: none"><li>1. Wear appropriate PPE to avoid skin and eye contact with isopropyl alcohol, alconox, or other cleaning materials.</li><li>2. Stand upwind to minimize possible inhalation exposure.</li><li>3. Proper disposal of spent chemical cleaning solutions and rinse accordingly.</li></ol>

Note: A first aid kit and fire extinguisher will be located in the C.T. Male company vehicle.

Response actions to personal exposure from on-site contaminants include skin contact, eye contact, inhalation, ingestion, and puncture or laceration. The recommended response actions are presented in Section 11.2.

## 6.0 TRAINING

Site specific training of workers and personnel will be conducted and provided by the HSO or designee prior to any on-site activity. The training will specifically address the activities, procedures, monitoring and equipment for the Site operations. It will include area and facility layout, hazards, emergency services (police, hospital, fire, etc.), and review of this HASP. Questions by workers, field personnel, etc. will be addressed at this time.

Workers and personnel conducting and/or supervising the project must have attended and successfully completed a 40 Hour Health and Safety Training Course for Hazardous Waste Operations and an annual 8 hour Refresher Course. In addition, the individual must take part in an employer medical surveillance program in accordance with OSHA 1910.120 requirements, specifically, that the workers have had a medical physical within one (1) year prior to the date the work begins and that they are physically able to wear a respirator.

Documentation of training and medical surveillance will be submitted to the HSO or designee prior to the start of any on-site work. A copy of the training certificates and medical surveillance documentation shall be inserted into the pocket of this HASP in Appendix A.

## 7.0 SITE ACCESS

The Site is located within the City of Schenectady. The Site work will be generally performed on southern portions of the Site and within the Site building. It may be likely that the public or curious bystanders may be present at the time of the work since there are other businesses located in the Site vicinity. Therefore, access to the site will be limited by placement of orange construction fence, orange cones and flagging, and/or other type of barrier around the work area.

Due to the limited extent of the Site boundaries relative to the area where the IRMs will be taking place, the work area for this project will be considered the southern paved portion of the site. Only OSHA trained individuals which are qualified to do the work and have read and signed this Site specific HASP will be allowed within the 10 foot radius work zone. The work area may be secured with barricades, signs, cones, flagging or other similar method to prevent unauthorized entry. Otherwise, the HSO or designee will be responsible for limiting access to unauthorized individuals.

During completion of the IRM activities, the immediate work area will be considered the Exclusion Zone (contaminated area where investigation work is to be conducted). The Contamination Reduction Zone (decontamination area), and Support Zone (clean area, everywhere else) will be established outside the Exclusion Zone, as necessary. The exclusion, contamination reduction, and support zone during investigation/remediation work have been identified and designated as follows:

Exclusion Zone - The location of the exclusion zone will be determined in the field prior to the start of work and will vary in size shape and location depending on the area(s) the work is being conducted. The outside exclusion zones may be delineated with stakes and yellow caution tape or other similar method. Only authorized persons with proper training and protective gear will be allowed to enter the exclusion zone.

Contamination Reduction Zone - This zone, if required, will generally be a 10'± x 10'± area, containing the temporary decontamination pad, as applicable, and adequately marked. The location will be determined in the field prior to the start of work and will vary depending on the area(s) the work is being conducted. This zone is where decontamination of personnel and equipment will take place, as necessary, on the basis of the work being performed. It will be located upwind of the Exclusion Zone, if possible.

Support Zone - Area outside of contamination reduction zone and not including the exclusion zone. Unauthorized or untrained individuals must remain in this zone.

## **8.0 PERSONAL PROTECTION**

### **8.1 Level of Protection**

Based on evaluation of the potential hazards, the minimum level of protection to be worn by workers during implementation of the Site remediation activities is defined as Level D protection, and will be controlled by the HSO or designee.

The minimum level D protective equipment will consist of field clothes, disposable chemical resistant gloves, hard hat, safety glasses, safety boots (steel-toe) and disposable over-boots (optional). As appropriate, this level of protection may be modified to include poly laminated Tyvek suits, coveralls, leg chaps, or face shield for additional protection. A full-face and half-face air purifying respirators should be readily available. The appropriate respirator cartridges that will be available at the Site, to use if necessary with the air purifying respirators are a combination organic vapor and particulate cartridge filters.

If required, level C protective equipment will consist of the items listed for Level D protection with the added protection of a half face or full-face, air purifying (organic vapor and particulate) respirator, chemical resistant clothing, inner and outer chemically resistant gloves (i.e. solvent resistant nitrile, PVC/nitrile), and chemical resistant disposable boot coverings. When Site conditions warrant the need for level C protective equipment, work will cease and the project will be re-evaluated to determine the necessity for employing engineering controls to reduce or eliminate the potential contaminants of concern. Level C protective equipment is not expected to be necessary based on our knowledge of the Site conditions.

If required, level B protective equipment will consist of the items listed for Level D protection except a self-contained breathing apparatus (SCBA) will be worn which is dependent on the level of contaminants present in the work zone and poly laminated Tyvek suits will be required. When Site conditions warrant the need for level B protective equipment, work will cease and the project will be re-evaluated to determine the necessity for employing engineering controls to reduce or eliminate the potential contaminants of concern. Level B protective equipment is not expected to be necessary based on our knowledge of the Site conditions.

## **8.2 Safety Equipment**

Basic emergency and first aid equipment will be available at an area within the Support Zone clearly marked and available or within C.T. Male's company vehicle. This shall include a first aid kit, fire extinguisher, supply of potable water, soap and paper towels. The HSO or designee shall be equipped with a cellular phone in case of emergencies.

## 9.0 COMMUNICATIONS

The HSO or designee shall be equipped with a cellular phone in case of emergencies. If the cellular phone is not available, or is inoperable, a phone within one of the nearby businesses is going to be the closest available phone. The location of the nearest phone should be determined by field staff prior to start of work. The HSO or designee shall notify the C.T. Male project manager as soon as safely possible in the event of an accident, injury or emergency action.

## 10.0 DECONTAMINATION PROCEDURES

### 10.1 Personnel Decontamination Procedures

Decontamination procedures will be carried out by all personnel leaving the Exclusion Zone (except under emergency evacuation). The amount of decontamination performed will be dependent on the level of personal protection currently being worn within the exclusion zone and known level of contaminants present.

1. Do not remove respiratory protection until all of steps have been completed.
2. Clean outer protective gloves and outer boots, if worn, with water (preferably with a pressurized washer) over designated wash tubs in the exclusion zone to remove the gross amount of contamination.
3. Deposit equipment used (tools, sampling devices, and containers) at designated drop stations on plastic drop sheets or in plastic lined containers.
4. Rinse outer boots if worn and gloves with clean water in designated rinse tubs. Remove outer boots if worn and gloves and deposit in designated area to be determined in the field for use the next day or when necessary. If disposable outer boots are worn, remove and discard in designated container.
5. Remove hard hat & safety glasses, rinse with clean water as necessary and deposit in designated area for use the next day or when necessary.
6. Remove Tyvek suit, if worn, and discard in designated container. Remove respirator at this time, if used; wash and rinse with clean water. Organic vapor cartridges, when used, will be replaced daily. Used cartridges will be discarded in the designated waste container. Remove inner gloves and discard in designated container.

## 10.2 Equipment and Sample Containers Decontamination

All decontamination will be completed by personnel in protective gear appropriate for the level of protection determined by the Site HSO or designee.

Excavation equipment utilized to uncover and remove the USTs and to excavate petroleum impacted soil will likely include a track mounted excavator or equivalent. The bucket of the excavating equipment, which comes into contact with site soils and/or groundwater, will be cleaned with a high-temperature high-pressure washer, or with non-phosphate (alconox) soap and tap water wash and rinsed with copious amounts of tap water prior to start of excavation activities and at the completion of the excavation activities. The bucket will be cleaned over the contaminated soil pile. The rinse and wash water will be allowed to infiltrate the soils of the petroleum impacted soil pile. If the latter is not feasible, a temporary decontamination pad will be constructed and utilized for the collection of water generated as part of the decontamination effort. If a decontamination pad is utilized, the decontamination water will be collected and transferred to the appropriate labeled DOT 55-gallon drum(s) for off-site disposal.

Manual soil sampling equipment including trowels, hand augers, etc. which come into contact with the Site's soils, will be cleaned with a non-phosphate detergent/tap water wash, a tap water rinse and a deionized water rinse prior to sampling, in between each sample location and at completion of sampling.

During the micro monitoring well installations, the Geoprobe equipment (tools, rods, macro-core sampler, etc.) will be cleaned with a non-phosphate detergent/tap water wash and tap water rinse prior to the start of the test bore holes, after each test bore hole/micro monitoring well installation, and at the completion of the micro monitoring well installations. Soil sampling equipment (i.e., macro-core sampler) will also be cleaned with a non-phosphate detergent/tap water wash and tap water rinse in between each soil sampling interval.

The decontamination fluids will be allowed to infiltrate the soils of the petroleum impacted soil pile. If the latter is not feasible, the decontamination water will be collected in labeled DOT 55-gallon drum(s) for off-site disposal.

Exterior surfaces of sample containers will be wiped clean with disposable wipes in the decontamination zone and transferred to a clean cooler for transportation or shipment to the analytical laboratory. Sample identities will be noted and checked off against the chain-of-custody record. The disposable wipes will be placed in the designated disposal container for subsequent disposal.

## 11.0 EMERGENCY RESPONSE PROCEDURES

THE PROJECT EMERGENCY COORDINATOR IS:

Site Health and Safety Officer (HSO)

Jeffrey Marx, PE

On-site personnel will use the following standard emergency procedures. The Project Manager and HSO shall be notified of any on-site emergencies and be responsible for assuring that the appropriate procedures are followed.

### 11.1 Personal Injury

Emergency first aid shall be administered on-site as deemed necessary and only by a trained individual, if available at the Site. If a trained individual is not available on-site, decontaminate, if feasible, and transport individual to nearest medical facility (Ellis Hospital). The HSO will supply medical data sheets to appropriate medical personnel and be responsible for completing the incident report. If the HSO is injured or controlling the emergency situation, the medical data sheets are available in Appendix B of this Health and Safety Plan. A map showing the route to Ellis Hospital is presented as Figure 1. Directions to the hospital are included with the figure.

### 11.2 Personal Exposure

The recommended response to worker exposure from contaminants on-site includes the following:

**SKIN CONTACT:** Use generous amounts of soap and water. Wash/rinse affected area thoroughly, and then provide appropriate medical attention, as necessary.

**EYE CONTACT:** Wash eyes thoroughly with potable water supply provided on site. Eyes should be rinsed for at least 15 minutes subsequent to chemical contamination. Provide medical attention, as necessary.

**INHALATION:** Move worker to fresh air and outside of the work zone and/or, if necessary, decontaminate and transport to hospital (Ellis Hospital). If respirator use is implemented at the time of inhalation, worker must not remove respirator until completely away from the work zone.

**INGESTION:** Decontaminate, if feasible, and transport to hospital (Ellis Hospital) and as appropriate, contact Central New York Poison Control Center.

**PUNCTURE  
WOUND OR**

**LACERATION:** Provide first aid at the Site and if wound needs medical attention, decontaminate, if feasible, and transport to hospital (Ellis Hospital).

If the affected worker is exposed to contaminants on-site and the injury or accident prevents decontamination of the individual, the emergency responders must be notified of this condition and the exposure must be kept to a minimum.

### **11.3 Potential or Actual Fire or Explosion**

Immediately evacuate area in the event of potential or actual fire or explosion. Notify the local fire and police departments, and other appropriate emergency response groups, as listed in Section 1.2. Perform off-site decontamination and contain wastes for proper disposal. If a fire or explosion occurs, all on-site personnel must meet in the designated area of the Site (established by the HSO or designee) for an accurate head count.

### **11.4 Equipment Failure**

Should there be any equipment failure, breakdown, etc. the Project Manager and HSO shall be contacted immediately. The Project Manager or the HSO will make every effort to replace or repair the equipment in a timely manner.

## 11.5 Spill Response

The Site HSO or designee shall initiate a corrective action program with the subcontractors in the event of an accidental release of a hazardous material or suspected hazardous material. The HSO or designee will act as the Emergency Coordinator with the subcontractors for the purposes of: spill prevention; identifying releases; implementing clean up measures; and notification of appropriate personnel.

The corrective action program will be implemented by the HSO and subcontractor to effectively control and minimize any impact accidental releases may have to the environment.

Effective control measures will include:

- Preliminary assessment of the release
- Control of the release source
- Containment of the released material
- Effective clean-up of the released material

Potential sources of accidental releases may include, but are not expected at the project Site, may include hydraulic oil spills or petroleum leaks from heavy equipment. The HSO/Emergency Coordinator in conjunction with the subcontractor shall respond to an accidental release in the following manner:

- Identify the character, source, amount and area affected by the release.
- Have subcontractor take all reasonable steps to control the release.
- Notify the NYSDEC Spill Hotline at 1-800-457-7362. Notify the City of Schenectady City Engineer, Bernard Sisson, and the NYSDEC Project Manager, Lawrence Alden, at a minimum, as listed in Section 1.2.
- Contain the release with sorbent material which should include speedi-dry, spill socks and sorbent pads.
- Prevent the release from entering sensitive receptors (i.e., catch basins and surface water) using the specified sorbent material or sandbags.
- Coordinate cleanup of the release material.
- Oversee proper handling and storage of contaminated material for disposal.

At no time should personal health or safety be compromised or jeopardized in an attempt to control a release. All health and safety measures as outlined in this HASP should be adhered to.

## 12.0 ADDITIONAL WORK PRACTICES

Workers will be expected to adhere to the established safety practices. Work on the project will be conducted according to established protocol and guidelines for the safety and health of all involved. The following will be adhered to:

- Employ the buddy system when possible, and for those work tasks which require it. Establish and maintain communications.
- Minimize contact with potentially contaminated soil and water.
- Employ disposable items when possible to minimize risks during decontamination and possible cross-contamination during sample handling.
- Smoking, eating, or drinking after entering the work zone and before decontamination will not be allowed (to prevent oral ingestion of potential on-site contaminants).
- Avoid heat, cold and other work stress related to wearing personal protective equipment. Take breaks as necessary and drink plenty of fluids to prevent dehydration.
- Withdrawal from a suspected or actual hazardous situation to reassess procedures is the preferred course of action.
- The removal of facial hair (except mustaches) prior to working on-site will be required to allow for a proper respiratory face piece fit.
- The Project Manager, the HSO, and sampling personnel shall maintain records recording daily activities, meetings, facts, incidents, data, etc. relating to the project. These records will remain at the project Site during the full duration of the project so that replacement personnel may add information while maintaining continuity. These daily records will become part of the permanent project file.

**13.0 AUTHORIZATIONS**

Personnel authorized to enter the exclusion zone at the 714 Broadway Site in the City of Schenectady, Schenectady County, New York while operations are being conducted must be certified by the HSO. Authorization will involve completion of appropriate training courses and review and sign off of this HASP.

Personnel authorized to perform work on-site are as follows:

- |                            |                  |
|----------------------------|------------------|
| 1. <u>Elizabeth Rovers</u> | <u>C.T. Male</u> |
| 2. <u>Jeff Marx</u>        | <u>C.T. Male</u> |
| 3. <u>Stephen Bieber</u>   | <u>C.T. Male</u> |
| 4. <u>Nate Freeman</u>     | <u>C.T. Male</u> |
| 5. <u>Jennifer Kotch</u>   | <u>C.T. Male</u> |
| 6. _____                   |                  |
| 7. _____                   |                  |
| 8. _____                   |                  |
| 9. _____                   |                  |
| 10. _____                  |                  |
| 11. _____                  |                  |
| 12. _____                  |                  |
| 13. _____                  |                  |
| 14. _____                  |                  |
| 15. _____                  |                  |
| 16. _____                  |                  |

**14.0 MEDICAL DATA SHEET**

This medical data sheet will be completed by all on-site personnel and will be kept on-site during the duration of the project. This data sheet will accompany any personnel when medical assistance is needed or if transport to hospital facilities is required.

PROJECT: ERP Interim Remedial Measures to be conducted at the 714 Broadway Site located at 714 Broadway in the City of Schenectady, Schenectady County, New York.

Name \_\_\_\_\_ Home Telephone \_\_\_\_\_

Address \_\_\_\_\_

Emergency Contact \_\_\_\_\_

Drug or Other Allergies \_\_\_\_\_

Particular Sensitivities \_\_\_\_\_

Do You Wear Contact Lenses \_\_\_\_\_

Provide a Checklist of Previous Illness or Exposure to Hazardous Chemicals

\_\_\_\_\_

What Medications Are You Presently Using

\_\_\_\_\_

Do You Have Any Physical or Medical Restrictions

\_\_\_\_\_

Are You Qualified to Wear Respirator (Provide Fit Test Results) \_\_\_\_\_

Date of your last OSHA physical \_\_\_\_\_

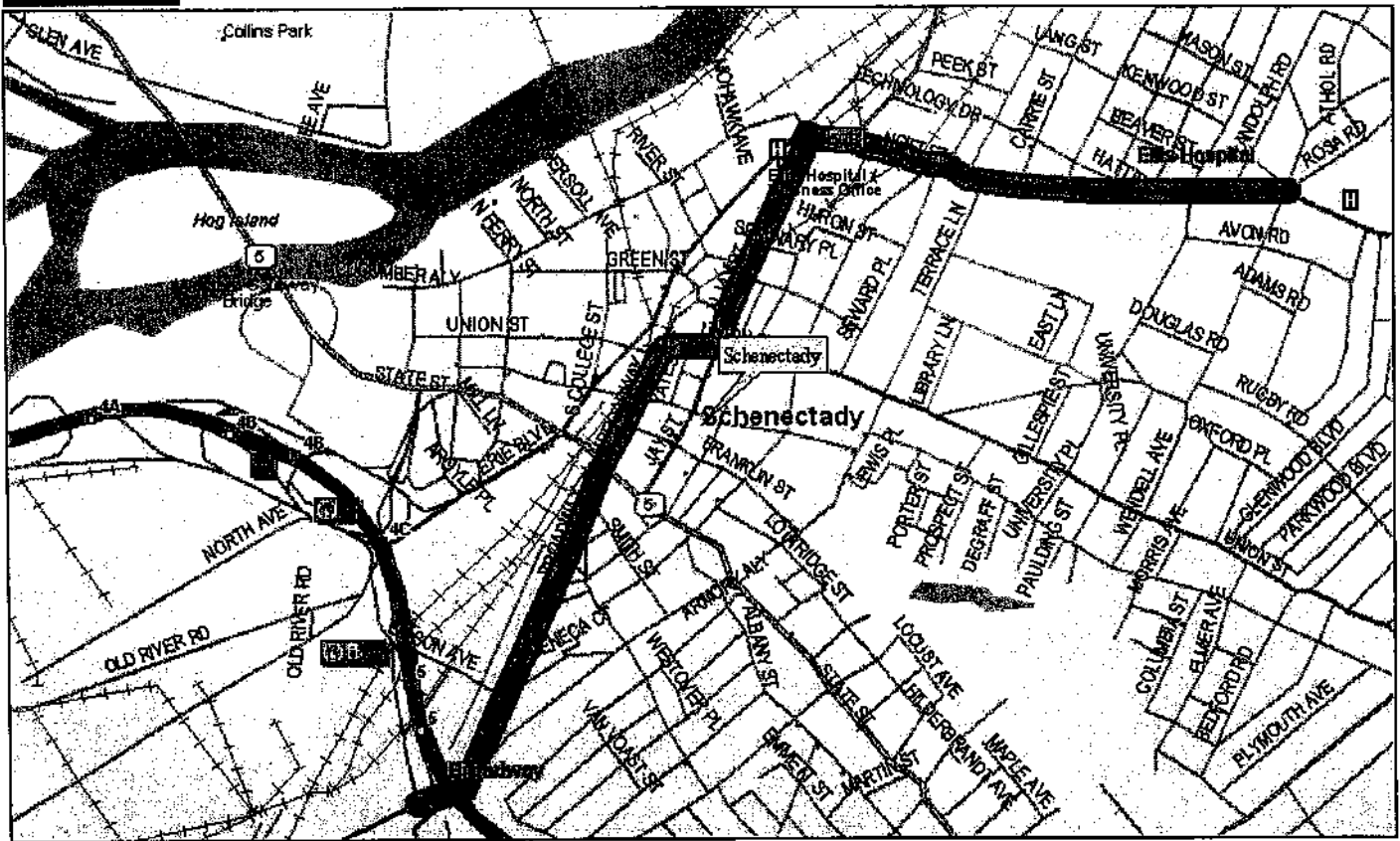
Name, Address, and Telephone Number of Personal Physician:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

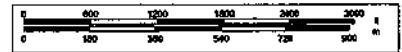
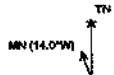


**FIGURE 1**

**MAP SHOWING ROUTE TO  
ELLIS HOSPITAL WITH DIRECTIONS**



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 www.delorme.com



Data Zoom 13-1

	Dist	Turn		Road	Exit	Finish Time	Finish Dist
●		Start	at	Broadway		00:06:06	2.26 mi
		Go straight (ENE)	on	Broadway		00:06:06	2.26 mi
	in 0.92 mi	Turn right (E)	on to	Union St		00:03:36	1.34 mi
	in 0.40 mi	Turn right (E)	on to	SR 50S (Nott St)		00:02:16	0.84 mi
	in 0.08 mi	Turn right (E)	on to	Nott St		00:02:07	0.77 mi
	in 0.76 mi	Go straight (ENE)	on to	Rosa Rd		00:00:01	0.01 mi
●	in 0.01 mi	Finish	at	Ellis Hospital		00:06:06	0.00 mi

Total Time: 00:06:06 Total Distance: 2.26 mi

**ATTACHMENT B**

**CITIZEN PARTICIPATION PLAN  
714 BROADWAY SITE  
714 BROADWAY  
CITY OF SCHENECTADY  
SCHENECTADY COUNTY, NEW YORK**

**CITIZEN PARTICIPATION PLAN  
714 BROADWAY SITE  
714 BROADWAY  
CITY OF SCHENECTADY  
SCHENECTADY COUNTY, NEW YORK**

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## 1.0 INTRODUCTION

This document presents the Citizen Participation (CP) plan for Interim Remedial Measures (IRMs) and Final Remedial Action to be implemented at 714 Broadway in the City of Schenectady, Schenectady County, New York. The objective of this plan is to disseminate information to the public regarding a) site investigation and remedial activities that will be performed at the site, b) the availability of project reports, and c) public involvement in the decision making process. This CP plan was prepared in a manner consistent with Citizen Participation in New York's Hazardous Waste Site Remediation Program: A Guidebook, a New York State Department of Environmental Conservation (NYSDEC) publication dated June 1998. It will be implemented with NYSDEC approval and involvement. The New York State Department of Health (NYSDOH) is also involved in the document review process and their comments and concerns are addressed and incorporated herein.

The City of Schenectady is participating in the NYSDEC-1996 Clean Water/Clean Air Bond Act, Environmental Restoration Projects (Brownfield), for 714 Broadway Street, which the City of Schenectady owns in Schenectady, New York. The City, through hired consultants, has performed a site investigation to determine if petroleum and chemical contamination exists, the extent of identified contamination and potential threats to public health and the environment. Using information obtained from the site investigation and findings of the Interim Remedial Measures, remedial alternatives for addressing the identified contamination will be evaluated, if additional actions are warranted. NYSDEC will then describe the preferred method of site remediation (cleanup) by issuing a Proposed Remedial Action Plan (PRAP). After a public comment period, NYSDEC addresses public concerns, if any, and selects a remedial alternative in a Record of Decision. The preferred remedial alternative is designed and implemented.

The Citizen Participation Program provides opportunities to gather the public's knowledge and information relative to the 714 Broadway Street site. This input is helpful in making informed decisions about the property's investigation and cleanup (as described in the work plan), the preparation of site reports, and the property's contemplated future use. Effective public input will help the NYSDEC develop and implement a plan for remedial work which is environmentally sound, enjoys wide public acceptance and has a high probability of timely implementation.

## **2.0 PROPERTY INFORMATION**

### **2.1 Project Location**

The site is located on the northeast quadrant of the intersection of Weaver Street and Broadway in the City of Schenectady, Schenectady County, New York. The site is identified on the City of Schenectady tax maps as being within the parcel with Section 49.31, Block 1, Lot 34.1. The subject site can be accessed from Weaver Street.

### **2.2 Site Description**

The site is currently unoccupied. The site is rectangular in shape and has approximately 86 feet of frontage along the east side of Weaver Street and approximately 30 feet of frontage along the north side of Broadway. The Interstate 890 exit ramp is located to the east of the site. An approximate 1,100 square foot abandoned two-story building is located on the northern portion of the site while asphalt paved areas make up southern portions of the site. Underground storage tank (UST) fill ports are located at grade on eastern portions of the asphalt pavement. An assumed vertical UST vent pipe serving the USTs is located along the southeast exterior wall of the structure

The site layout is depicted on the figures made part of the IRM Work Plan.

### **2.3 Site Background Summary**

A Petroleum Storage Tank and Geoprobe Subsurface Investigations has been conducted at 714 Broadway Street the City of Schenectady in relation to one above ground storage tank and four underground storage tanks (USTs) at the site. The purpose of the tanks and subsurface investigations was to determine the number of tanks present, potential size and contents, to conduct a tank assessment to determine if a release of petroleum had occurred, and/or to determine the quality of soil and groundwater in the area of four abandoned USTs.

Based on the work completed, there is one 275 gallon above ground heating oil tank (Tank 003) inside the building and four USTs (Tanks 001, 002, 004 and 005) in the paved area south of the building on-site. Three of the USTs contain petroleum contaminated water, the other UST appears to be empty, and the above ground heating oil tank

appears to contain a minimal amount of heating oil. Evidence of petroleum contamination was detected in the soil based on PID screening results and visual observations (staining and odor), and based on the laboratory analyses results. However, the levels of volatile organic compounds (VOCs) detected in two (GP-4 and GP-6) of the four soil samples analyzed in the laboratory were below the NYSDEC TAGM 4046, Determination of Soil Cleanup Objectives and Cleanup Levels criteria. The findings during the subsurface investigation were reported to the NYSDEC Spill Hotline and Spill Number 04-00440 was assigned to the incident.

The horizontal extent of the petroleum contamination detected at GP-6, southwest of the tank cluster was not able to be determined during the one day of Geoprobe subsurface investigation, as there was not sufficient time to conduct additional bore holes. The highest PID readings and strongest petroleum odor were detected at this location within the 8 to 10 foot sample interval (concentrated at 9.5 to 10 feet). Low PID readings and petroleum odor were obtained within the 8 to 10 foot sample interval (at the water table) at bore holes to the west (GP-2), east (GP-4) and south (GP-3) of the USTs.

No evidence of petroleum contamination was detected in the five groundwater samples collected and analyzed for VOCs.

### **3.0 PROJECT DESCRIPTION**

#### **3.1 Objectives of the Interim Remedial Measures**

Based on findings of the tank and Geoprobe subsurface investigation conducted at 714 Broadway Street site, there is one above ground storage tank and four underground storage tanks on-site. The Geoprobe subsurface investigation indicated that petroleum contaminated soil is present on-site. The tank closures and soil remediation work will be performed as Interim Remedial Measures (IRM) under the Environmental Restoration Program. The objectives of the IRM are to eliminate and contain potential exposures to environmental contaminants affiliated with the existence of Site USTs and the AST, petroleum impacted water within the USTs, and petroleum impacted soil and potential petroleum impacted groundwater adjacent to the USTs. The tank closure work will include the proper removal, cleaning, closure, and disposal of the petroleum storage tanks. The soil remediation work will include the excavation, transportation, and disposal of petroleum contaminated soil. Soil samples will be collected to determine the quality of soil remaining on-site. The goal of the IRM is to remove the petroleum storage tanks and contaminated soil which will ultimately achieve compliance with established regulatory clean-up guidance levels and criteria.

#### **3.2 Schedule of the IRM Program**

The following is a list of the major steps to be completed during the course of this IRM:

1. Prepare Draft Interim Remedial Measures Work Plan.
2. NYSDEC and NYSDOH review and comment period.
3. Address NYSDEC/NYSDOH comments and submit Final Interim Remedial Measures Work Plan.
4. Complete interim remedial measures activities.
5. Prepare Draft Tank Closures and Remedial Actions Report.
6. NYSDEC/NYSDOH review and comment period.
7. Address NYSDEC/NYSDOH comments and submit Final Tank Closures and Remedial Actions Report.

8. NYSDEC prepares Proposed Remedial Action Plan (PRAP).
9. 45 day public comment period before selection of final remedy (NYSDEC may hold public meeting during this time period).
10. NYSDEC prepares a Responsiveness Summary to address public comments from the PRAP.
11. NYSDEC prepares Record of Decision and notifies the public on its availability.

#### 4.0 DOCUMENT REPOSITORY LOCATION

Three document repositories have been established to provide the public with convenient access to important project documents and other information. This information may include reports, data and other information gathered and developed during the course of the site investigation. Fact sheets, public meeting announcements, the Proposed Remedial Action Plan and the Record of Decision will be available for review by the public. The document repositories for this project are as follows:

- Schenectady County Public Library  
99 Clinton Street, Schenectady, New York 12305  
Telephone: (518) 388-4500  
Hours of Operation: Monday to Thursday 9:00 AM - 9:00 PM, Friday & Saturday 9:00 AM - 5:00 PM, and Sunday 1:00 PM - 5:00 PM
- City of Schenectady Department of Engineering and Public Works  
Room 205 City Hall, 105 Jay Street, Schenectady, New York 12305  
Telephone: (518) 382-5082  
Hours of Operation: Monday-Friday 8:00 AM - 4:00 PM (by appointment)
- New York State Department of Environmental Conservation  
Central Office, 625 Broadway, Albany, NY 12233-7013  
Telephone: (518) 402-9818  
Hours of Operation: Monday-Friday 8:30 AM - 4:30 PM (by appointment)

The availability of documents placed in these repositories will be announced through fact sheets, public meetings and other appropriate means.

## **5.0 PROJECT CONTACT LIST**

For additional information about the program to investigate and cleanup the 714 Broadway Street site, the public is encouraged to contact the appropriate individuals listed in the following sections.

### **5.1 Site Owner**

1. City of Schenectady  
Room 205 City Hall, 105 Jay Street, Schenectady, New York 12305  
Contact: Bernard Sisson, P.E., City Engineer, (518) 382-5082

### **5.2 NYS Department of Environmental Conservation (DEC)**

1. Mr. Lawrence J. Alden, P.E., Project Manager  
New York State Department of Environmental Conservation, 625 Broadway,  
12<sup>th</sup> Floor, Albany New York 12233, (518) 402-9818
2. Mr. Michael J. Komoroske, P.E, Section Chief  
New York State Department of Environmental Conservation, 625 Broadway,  
12<sup>th</sup> Floor, Albany, New York 12233-7013, (518) 402-9818

### **5.3 NYS Department of Health (DOH)**

1. Ms. Tamara S. Girard, Technical Lead  
Bureau of Environmental Exposure Investigation,  
Flanigan Square, 547 River Street, Room 300, Troy, NY 12180, (518) 402-7680
2. Mr. Gary Litwin, Bureau Director  
Bureau of Environmental Exposure Investigation  
New York State Department of Health  
Flanigan Square, 547 River Street, Troy, New York 12180, (518) 402-7850

### **5.4 Engineering Consultant**

1. Mr. Dave Roecker, P.E., Project Principle  
50 Century Hill Drive, Latham, New York 12110-0727, (518) 786-7491

2. Ms. Elizabeth Rovers, P.E., Project Manager  
50 Century Hill Drive, Latham, New York 12110-0727, (518) 786-7492
3. Mr. Jeffrey Marx, P.E., Project Engineer  
50 Century Hill Drive, Latham, New York 12110-0727, (518) 786-7548

#### **5.5 Public Interest Groups**

1. New York Public Interest Research Group (NYPIRG), State University College, Campus Center 307, Albany, New York 12222, (518) 442-5658

#### **5.6 Adjacent and Nearby Residents**

A list of adjacent and nearby residents is maintained confidentially in project files, not in the CP Plan or repositories. If residents with interest in the project desire to add their name and address to this list, please contact Mr. Jeffrey Marx at the address or telephone number listed above in Section 5.4. The adjacent and nearby residents list will be reviewed periodically and updated as appropriate.

#### **5.7 Adjacent Businesses**

1. Dave Hunt's Auto Service, located at 103 Weaver Street is adjacent to the subject site.

#### **5.8 News Media**

1. Times Union  
645 Albany-Shaker Rd, Albany, NY 12212, (518) 454-5694
2. Gazette Newspapers  
2345 Maxon Rd, Schenectady, NY 12308, (518) 374-4141

#### **5.9 Local and State Government Officials**

1. The Honorable Brian U. Stratton, City of Schenectady Mayor, City Hall, 105 Jay Street, Schenectady, NY 12305, (518) 382-5000
2. The Honorable Frank J. Maurizio, City Council President, City Hall, 105 Jay Street, Schenectady, NY 12305, (518) 382-5089

3. The Honorable Denise K. Brucker, Majority Leader, City Hall, 105 Jay Street, Schenectady, NY 12305, (518) 382-5089
4. The Honorable Alfred Goldberger, Corporation Counsel, City of Schenectady, City Hall, Room 201, 105 Jay Street, Schenectady, NY 12305, (518) 382-5073
5. The Honorable John J. Woodward, Schenectady County Clerk, 620 State Street, Schenectady NY 12305, (518) 388-4220
6. Honorable James Tedisco, Assemblyman, New York State Assembly, LOB 521, Albany, New York 12248, (518) 455-5811 or 12 Jay Street, Schenectady NY 12305, (518) 370-2812
7. The Honorable Hugh T. Farley, Senator, New York State Senate, LOB 412, Albany, New York 12247, (518) 455-2181
8. Carl Olsen, Commissioner, Department of General Services, City of Schenectady, City Hall, 105 Jay Street, Schenectady NY 12305, (518) 382-5000
9. Bernard R. Sisson, P.E., City Engineer, City of Schenectady, City Hall, 105 Jay Street, Schenectady NY 12305, (518) 382-5082

## **6.0 SIGNIFICANT ISSUES OF INTEREST**

There have been no significant issues of interest identified at this time. If adjacent property owners, businesses or long term local residents have knowledge relating to potential site impacts or site investigation activities described in the Interim Remedial Measures Work Plan, the information should be presented in writing to Mr. Lawrence J. Alden, P.E. of the NYSDEC Central Office (see Section 5.2).

## 7.0 SPECIFIC CITIZEN PARTICIPATION ACTIVITIES

This section describes the citizen participation activities planned for the interim remedial measures project at the 714 Broadway site located in the City of Schenectady, New York.

The availability of the IRM Work Plan will be announced through the project's contact list of public interest groups, local government officials, municipal and New York State contacts, interested and nearby residents, and the news media. The IRM Work Plan will provide a description of the proposed remedial and investigative work tasks. A copy of the IRM Work Plan will then be placed in the document repository for public review.

Depending upon public interest, meetings will be scheduled on an as-needed basis. If required, a legal notice, or other public notice, of public meetings will be placed in the Daily Gazette fifteen (15) days prior to the meeting date.

The availability of the Final Tank Closures and Remedial Actions Report will be announced through the project's contact list and the news media. The Tank Closures and Remedial Actions Report will provide a detailed summary of the investigation and site interim remedial measures performed. Subsequently, the NYSDEC will prepare a summary of the tank closures and remedial actions in a Proposed Remedial Action Plan (PRAP). A 45 day public comment period, followed by a public meeting regarding the Final Tank Closures and Remedial Actions Report and PRAP, will be held to obtain the public's views of the preferred remedial action. A legal notice of the meeting will be placed in the Daily Gazette 15 days prior to the meeting date.

After the 45 day comment period, the public comments will be summarized, and a transcript of the meeting and Responsiveness Summary will be prepared and placed in the document repository.

Once a final remedial program for the project has been selected by the NYSDEC in a Record of Decision (ROD), a notice of the selection, including a brief analysis of the remedy and significant changes from the proposed remedy, will be placed in the document repository. ~~The ROD may be mailed to the contact list~~

## 8.0 GLOSSARY OF KEY TERMS

This glossary defines terms associated with NYSDEC's citizen's participation program, and important elements of the Environmental Restoration Program.

Administrative Record - Part of a site's Record of Decision which lists and defines documents used in the development of NYSDEC's decision about the selection of a remedial action.

Citizen Participation - A process to inform and involve the interested/affected public in the decision-making process during assessment and remediation of sites. This process helps to assure that the best decisions are made from environmental, human health, economic, social and political perspectives.

Citizen Participation Plan - A document that describes the specific Citizen Participation activities that will take place during the site investigation and remedial activities.

Citizen Participation Specialist - A NYSDEC staff member who provides guidance, evaluation and assistance to help the NYSDEC Project Manager carry out his/her site-specific Citizen Participation program.

Contact List - Names, addresses, and/or telephone numbers of individuals, groups, organizations, and media interested and/or affected by a particular site during the remedial program. It is used to inform and involve the interested/affected public.

Document Repository - Typically, a regional NYSDEC office and/or public building, such as a library, near a particular site, at which documents related to investigation, remedial activities, and citizen participation activities at the site are available for public review.

Fact Sheet - A written discussion of a site's remedial process, or some part of it, prepared by NYSDEC for the public in easily understandable language. Uses may include, for example: discussion of an element of the remedial program, opportunities for public involvement, availability of a report or other information, or announcement of a public meeting. It may be mailed to all or part of the interested public, distributed at meetings and availability sessions or sent when requested.

Interim Remedial Measure (IRM) - A discrete action which can be conducted at a site relatively quick to reduce the risk to people's health and the environment from a well-defined petroleum or chemical waste problem. An IRM can involve removing contaminated soil or drums, providing alternative water supplies, or securing a site to prevent access.

NYSDEC Project Manager - A NYSDEC staff member within the Division of Environmental Remediation (usually an engineer, geologist or hydrogeologist) responsible for the day-to-day administration of activities, and ultimate disposition of, one or more Brownfield's sites. The Project Manager works with the City of Gloversville, as well as, fiscal and legal staff to accomplish site-related goals and objectives.

Operable Unit - A discrete part of an entire site that produces a release, threat of release, or pathways of exposure. An Operable Unit can receive specific investigation, and a particular remedy may be proposed. A Record of Decision is prepared for each Operable Unit.

Proposed Remedial Action Plan (PRAP) - An analysis by NYSDEC of each alternative considered for the remediation of a site and a rationale for selection of the alternative it recommends. The PRAP is created based on information developed during the site remedial alternative report. The PRAP is reviewed by the public and other state agencies.

Public Meeting - A scheduled gathering of the NYSDEC staff, the Owner, the Engineering Consultant and the public to give and receive information, ask questions and discuss concerns about the project. A Public Meeting generally features a formal presentation and a detailed agenda.

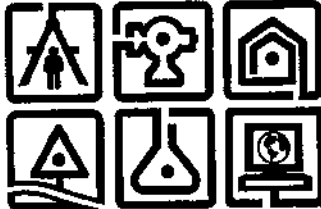
Public Notice - A written and/or verbal communication to inform the public about an important aspect of a site's remedial program. The public notice may be formal and meet legal requirements (such as legal notice in a local newspaper of general circulation), or may be more informal and may not be legally required.

Responsiveness Summary - A written summary of major oral and written comments received by NYSDEC during a comment period about the key elements of the site's remedial program and NYSDEC's response to those comments.

**EXHIBIT 1**

**PETROLEUM STORAGE TANKS AND GEOPROBE  
SUBSURFACE INVESTIGATIONS REPORT,  
714 BROADWAY STREET, CITY OF SCHENECTADY,  
SCHENECTADY COUNTY, NEW YORK,  
PREPARED BY C.T. MALE ASSOCIATES, P.C.,  
DATED JUNE 4, 2004**

June 4, 2004



Petroleum Storage Tanks  
And Geoprobe Subsurface  
Investigations Report

714 Broadway Street  
City of Schenectady  
Schenectady County, New York  
NYSDEC Spill No. 04-00440  
NYSDEC PBS No. 4-600945

*Prepared for:*

**CITY OF SCHENECTADY DEPARTMENT  
OF ENGINEERING AND PUBLIC WORKS**  
Room 205 City Hall  
105 Jay Street  
Schenectady, New York 12305

*Prepared by:*

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Latham, New York 12110  
(518) 786-7400  
FAX (518) 786-7299

*C.T. Male Project No: 04.9133*

**PETROLEUM STORAGE TANKS AND  
GEOPROBE SUBSURFACE INVESTIGATIONS REPORT  
714 BROADWAY STREET  
CITY OF SCHENECTADY**

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FIGURE 2:	Tax Map
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**PETROLEUM STORAGE TANKS AND  
GEOPROBE SUBSURFACE INVESTIGATIONS REPORT  
714 BROADWAY STREET  
CITY OF SCHENECTADY**

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## 1.0 INTRODUCTION

### 1.1 General

This report presents the findings of an investigation of petroleum storage tanks and a Geoprobe subsurface investigation conducted at 714 Broadway Street, which is located at the intersection of Weaver Street and Broadway Street in the City of Schenectady, Schenectady County, New York. The site is approximately 30 feet by 86.6 feet and contains one two-story structure. A Site Location Map of the site and surrounding area is presented as Figure 1. A Tax Map of the site is presented as Figure 2.

The purpose of the Petroleum Storage Tanks and Geoprobe Subsurface Investigations was to determine the number of tanks present, potential size and contents, and to conduct a tank assessment in accordance with 40 CFR Part 280.72 for evidence of a release of petroleum from up to four abandoned underground storage tanks at the 714 Broadway Street site. The Petroleum Storage Tanks and Geoprobe Subsurface Investigations included the identification and investigation of four underground storage tanks and one above ground storage tank (Tanks 001 to 005), and the advancement of six Geoprobe bore holes using a truck-mounted direct push hydraulic unit (Geoprobe Model 540 U) to facilitate soil and groundwater sampling. All of the bore holes were advanced for soil sampling for field vapor screening with a photo-ionization detector (PID) meter, some of which were advanced for the collection of laboratory soil and groundwater samples. Bore holes GP-1, GP-2, GP-3, GP-4, and GP-6 were used for the collection of groundwater samples via a Screen Point 15 Groundwater Sampler for laboratory analysis. A groundwater sample was not obtained from GP-5 due to the lack of evidence of contamination based on olfactory observations (sight and smell) and field screening headspace analysis results. The investigation of the petroleum storage tanks was conducted on March 30, 2004 and the Geoprobe subsurface investigation field activities were conducted on April 14, 2004.

The Petroleum Storage Tanks and Geoprobe Subsurface Investigations were conducted by C.T. Male Associates, P.C. (C.T. Male) as requested by the City of Schenectady Department of Engineering and Public Works. C.T. Male subcontracted

with SJB Services, Inc. (SJB) of Ballston Spa, New York to perform the Geoprobe drilling to facilitate the soil and groundwater sampling. C.T. Male subcontracted with Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, Connecticut to perform the laboratory analyses of soil and groundwater samples.

## **1.2 Project Background**

The City of Schenectady was issued a Notice of Violation (NOV) by NYSDEC on November 28, 2003 regarding the facility's compliance with the NYS Petroleum Bulk Storage (PBS) regulations. The NOV in general identified violations pertaining to unregistered tanks and out of service tanks that have not been permanently closed. The City of Schenectady contracted with C.T. Male to investigate the site for petroleum bulk storage tanks and for evidence of a release from the tanks in preparation of permanently closing the tanks. On March 24, 2004 and April 1, 2004, C.T. Male on behalf of the City submitted a PBS application to register the known petroleum bulk storage tanks at the site and to register the additional tanks identified during the tank investigations on March 30, 2004, respectively. The site was assigned PBS Number 4-600945.

The City of Schenectady acquired the property by tax foreclosure proceedings. According to City assessment records, the site used to be a gas and service station, and then was used for storage and residence. During a telephone conversation, the previous property owner indicated that there are four underground petroleum storage tanks on the property (one 1,000 gallons and three 3,000 gallons) and one 275 gallon above ground heating oil tank inside the building on-site. According to the previous property owner, there were no gasoline pumps present when he purchased the property in approximately 1978.

## 2.0 TANK INVESTIGATIONS

### 2.1 Field Investigations and Findings

On March 30, 2004, a representative of C.T. Male conducted a site visit to determine the number and location of underground storage tanks (USTs) present, the potential size and contents. Representatives from the City of Schenectady Department of Public Works were also present with a backhoe excavator to provide assistance in locating the additional tanks reported to be present. Two exposed fill pipes were visible on-site in the paved area south of the on-site building. A vent pipe was visible along the southeast exterior wall of the on-site building. At the base of the vent pipe, four pipes were visible that rise vertically from underground and manifold together at the ground surface into the vertical vent pipe, suggesting four USTs are present on-site.

A magnetometer (Heliflex Magnetic Locator Model Number GA-52CX) was utilized to attempt to determine the orientation of the USTs associated with the exposed fill pipes and to locate the additional fill ports associated with the other two reported USTs on-site, but was not successful. A shallow trench was excavated with the backhoe excavator in a north-south direction from the exposed fill pipes to uncover the additional fill ports. The excavator uncovered two additional fill ports that generally were in-line with the original exposed fill ports. The fill ports run parallel with Weaver Street. The uncovered fill ports were covered with approximately 1-inch of asphalt. The trench was backfilled and the area graded after uncovering the additional fill pipes. The four exposed fill ports were identified as Tank 001, Tank 002, Tank 004, and Tank 005. A fifth tank, Tank 003, was observed inside the on-site structure along the north wall. It was identified as a 275 gallon heating oil tank. See attached Figure 3, Sampling Locations Map for the approximate location of the identified tanks.

The tank interiors were assessed to determine the contents and diameter of the tanks. Polyethylene was placed next to the fill ports during the assessment. At each fill port location, samples were collected of the tank contents, where applicable, the tank contents were assessed with an interface probe, gasoline paste and water paste, and tank measurements were taken. The interface probe was decontaminated in between

each use with Alconox soap and water and rinsed with deionized water. The rinse water was allowed to infiltrate the soil around the exposed fill ports. At completion of the assessment, the fill port covers were put back on and duct taped in place. The findings of the tank investigations are summarized below:

Description	Tank 001	Tank 002	Tank 004	Tank 005
Observation of Tank Contents	Appears to be water with no petroleum odor or sheen	Appears to be water with no petroleum odor or sheen	Appears to be dry	Appears to be water with no petroleum odor or sheen
Depth of Liquid	11.4"	12.8"	Dry	4.7"
Depth of Sediment/Sludge	None evident	None evident	Dry hard bottom, none evident	None evident
Gasoline Paste Assessment	No change in color	No change in color	Not sufficient liquid present	No change in color
Water Paste Assessment	Indicated water present	Indicated water present	No liquid present	Indicated water present
Interface Probe Assessment	No product present	No product present	No liquid present	No product present
Measured Tank Diameter	5' 4.5"	5' 4.5"	47" (approx. 4')	5' 3"
Total Depth From Top of Fill Pipe	8' 1"	8' 6"	6' 5"	8' 3.5"
Depth to Top of Tank From Grade	2' 8.5"	3' 2.5"	2.5'	3' 1/2"

As noted above, the fill ports to the four USTs generally line up and are parallel with Weaver Street. Taking into account the distance between the fill pipes at various orientations, it appears that the four tanks are probably all parallel to each other and orientated parallel with Broadway. The tank diameters are all around approximately 5-1/3 feet, except Tank 004 which is approximately 4 feet in diameter. Looking at tank charts for underground tanks, the tanks could be anywhere from 1,000 gallons (6' length) to 4,000 gallons (24' length) in size. The previous owner of the property reported the tanks to consist of one 1,000 gallon tank and three 3,000 gallon tanks. Tank 004 being 4 feet in diameter, may potentially be the 1,000 gallon tank referred to by the previous owner.

The 275 gallon fuel oil above ground storage tank (AST), Tank 003, located inside the on-site structure was visually inspected. The tank interior was observed to contain a small amount of oil. Using an oil/water interface probe, the depth of product was determined to be less than 0.01 feet.

## **2.2 Laboratory Analyses and Results**

A sample of the liquid from Tank 001, Tank 002 and Tank 005 was collected using a new clean disposal bailer with new clean rope and wearing new clean nitrile gloves. The samples from Tank 001, Tank 002 and Tank 005 were placed in 40 mil septum glass vials preserved with hydrochloric acid for VOCs analysis, amber glass jar for PCBs analysis and plastic container preserved with nitric acid for TCLP chromium and lead analysis. Since what appeared to only be water was present in the referenced tanks, just the sample for VOCs analysis from Tank 005 was analyzed in the laboratory by EPA Method 8021. The samples were analyzed by Phoenix Environmental Laboratories, Inc. of Manchester, Connecticut a NYSDOH ELAP certified laboratory (ELAP #11301). There was not sufficient liquid present to collect a sample from Tank 004 or Tank 003.

For the sample from Tank 005, seven VOCs were detected at concentrations ranging from 11 ug/l of naphthalene to 1,300 ug/l of 1,2,4-trimethylbenzene. The VOCs detected were petroleum constituents, except 1,2,3-trichloropropane which was detected at 30 ug/l. In general, the water present in Tank 001, Tank 002 and Tank 005 appears to be petroleum contaminated water. A copy of the laboratory analysis report is enclosed in Appendix A.

### 3.0 METHOD OF GEOPROBE SUBSURFACE INVESTIGATION

#### 3.1 General

Six exploratory bore holes were advanced around the four underground storage tanks in the paved area south of the on-site structure at 714 Broadway Street. Bore holes GP-1 through GP-6 were advanced on April 14, 2004. Since it was estimated that four USTs were present in a concentrated area of the site and probably parallel to each other based on the location of the fill pipes, the initial bore hole locations were selected such that there would be at least one bore hole on the north and south sides of the row of tanks (i.e., estimated to be the sides of the tanks) and one bore hole on the east and west sides of the row of tanks. (i.e., estimated to be the ends of the tanks) Since the northern most Tank 001 was a smaller diameter and potentially a 1,000 gallon tank, a bore hole was also advanced on the west end of the tank. Based on the findings as the work proceeded, a bore hole was also advanced southwest of the tanks.

Table 2.1-1 provides a summary of the Geoprobe bore hole program including identification numbers of the test bore hole locations, total depth and sampling data.

**TABLE 3.1-1  
SUMMARY OF GEOPROBE BORE HOLE PROGRAM  
714 BROADWAY**

Geoprobe ID	Total Depth (feet below grade)	Soil Sample Interval Analyzed In Lab (feet below grade)	Method of Collection and Depth of Screened Interval For Groundwater Sample Analyzed in Lab (feet below grade)
GP-1	16	None	Screen Point 15 Groundwater Sampler with screened interval exposed from 8 to 11 feet below grade.
GP-2	16	8-10	Screen Point 15 Groundwater Sampler with screened interval exposed from 12 to 15 feet below grade.
GP-3	16	8-10	Screen Point 15 Groundwater Sampler with screened interval exposed from 12 to 15 feet below grade.

**TABLE 3.1-1  
SUMMARY OF GEOPROBE BORE HOLE PROGRAM  
714 BROADWAY**

Geoprobe ID	Total Depth (feet below grade)	Soil Sample Interval Analyzed In Lab (feet below grade)	Method of Collection and Depth of Screened Interval For Groundwater Sample Analyzed in Lab (feet below grade)
GP-4	16	8-10	Screen Point 15 Groundwater Sampler with screened interval exposed from 12 to 15 feet below grade.
GP-5	16	None	None
GP-6	16	8-10	Screen Point 15 Groundwater Sampler with screened interval exposed from 12 to 15 feet below grade.

The Geoprobe test bore holes were advanced by SJB Services, Inc. of Ballston Spa, New York. A C.T. Male environmental geologist/scientist observed the advancement of the Geoprobe bore holes and collection of soil and groundwater samples. Soil conditions encountered during the subsurface investigation were recorded on subsurface exploration logs, and samples collected were classified by a C.T. Male environmental geologist/scientist using the Unified Soil Classification System. All Geoprobe sampling equipment, the Macro-core soil sampler, the Screen Point 15 groundwater sampler and associated tools were cleaned prior to the start of work, between each sampling interval and at completion of the work with non-phosphate detergent (i.e., Alconox) and potable water, and rinsed with potable water. Since evidence of petroleum contamination was encountered based on visual observations and odor, the decontamination liquid and groundwater purge water were discharged into Tank 001 with the existing petroleum contaminated water. The bore holes were abandoned with bentonite chips and existing soil.

The Geoprobe Subsurface Exploration Logs are enclosed in Appendix B. The Geoprobe bore hole locations are shown in Figure 3, Sampling Locations Map, at the end of the text of this report.

### 3.2 Soil Sampling

At all of the Geoprobe bore hole locations the soil was continuously sampled using a direct push stainless steel Macro-core sampler that was 4 feet in length and 1.75 inches in diameter. The Macro-core sampler was equipped with a new clean disposable acetate liner for the purpose of soil sample collection. The acetate liner was removed from the Macro-core sampler after each sample interval and opened. At all locations, a portion of the soil sample was quickly transferred from the acetate liner for a desired interval to new Ziploc brand plastic bags and filled about half full using a new pair of clean sampling gloves. Each sample was then shaken and screened with a MiniRAE 2000 PID meter. The PID meter was calibrated (using isobutylene standard calibration gas of 100 parts per million) prior to use in accordance with the manufacturer's instructions. The PID readings were recorded on Organic Vapor Headspace Analysis Logs which are presented in Appendix C.

At bore holes GP-2, GP-3, GP-4 and GP-6, samples were also taken for laboratory analysis. The acetate liner was cut open and a portion of the soil sample was quickly retrieved from the acetate liner from the desired interval using a new pair of clean sampling gloves and transferred to labeled, laboratory-supplied clean containers (one 4 ounce for volatile organic compounds (VOCs) analysis), and then soil was collected for PID screening. The jars were sealed and subsequently placed into a cooler containing bagged ice for submission to the laboratory along with a completed chain of custody record. Glass jars with Teflon lined caps for VOCs were filled with soil by taking soil from the location within the acetate liner that straddled the soil water interface or the depth corresponding to the water table to create a representative sample for a selected interval (i.e., 8-10 feet).

Four soil samples were sent for laboratory analyses from GP-2, GP-3, GP-4 and GP-6 based on visual observation of soil staining and petroleum odor at the water table, the PID screening results (i.e., the soil interval with the highest PID screening results was submitted for laboratory analysis), and corresponding to the bottom of the tanks. At GP-2, estimated to be near the middle of the west end of the cluster of tanks, a soil sample from 8 to 10 feet was submitted for laboratory analysis exhibiting a PID reading of 25.2 ppm above background. At GP-3, estimated to be near the middle south side of the cluster of tanks (south side of Tank 002), a soil sample from 8 to 10 feet was submitted for laboratory analysis exhibiting a PID reading of 53.5 ppm

above background. At GP-4, estimated to be near the middle of the east end of the cluster of tanks, a soil sample from 8 to 10 feet was submitted for laboratory analysis exhibiting a PID reading of 2.4 ppm above background. At GP-6, located southwest of the row of tanks, a soil sample from 8 to 10 feet was submitted for laboratory analysis exhibiting a PID reading of approximately 720 ppm above background.

In summary, one soil sample each was analyzed from bore holes advanced on the east and west ends of the cluster of tanks, and one soil sample each was analyzed from the bore holes advanced on the south side of the cluster of tanks and to the southwest of the cluster of tanks.

### 3.3 Groundwater Sampling

Groundwater samples were obtained from bore holes GP-1, GP-2, GP-3, GP-4 and GP-6 based on where soil screening PID readings were obtained and to account for the potential direction of groundwater flow. A groundwater sample was not obtained from GP-5 due to lack of contamination based on olfactory observations (sight and smell) and PID headspace analysis screening. A Geoprobe Screen Point 15 groundwater sampler with a 4-foot screen length was utilized to facilitate the groundwater sampling. The sampler is attached to the Geoprobe unit and pushed into the ground to the desired depth. Then the rods are pulled back and the screen is exposed to allow groundwater to enter the sampler. The soil samples became wet at approximately 8 to 10 feet below grade, therefore the screen was exposed from approximately 12 to 15 feet below grade, except at GP-1, where the screen was exposed from approximately 8 to 11 feet, as the bore hole had partially collapsed after the macro-core sampler had been removed. The sampler screen is wire-wound stainless steel (4-slot).

The groundwater samples were collected using new clean polyethylene and silicone tubing at each sample location and a peristaltic pump to transfer the groundwater from the Screen Point 15 sampler into labeled clean glass sample jars. Approximately ¼ gallon and ½ gallon of groundwater was purged at these locations to reduce the turbidity and evacuate at least one well volume from the annulus of the sampler prior to collecting the laboratory samples. Samples were collected in laboratory-supplied glass 40 ml Teflon septum glass containers fixed with HCL for VOCs analysis.

## **4.0 FINDINGS OF GEOPROBE SUBSURFACE INVESTIGATION**

### **4.1 Subsurface Conditions**

#### **4.1.1 Soil**

A total of six Geoprobe bore holes were advanced across the site as shown in Figure 3. The termination depths of the bore holes were generally 16 feet below grade. The bore holes revealed similar subsurface soil conditions across the site. The soil sample descriptions for each Geoprobe bore hole are presented on individual Geoprobe Subsurface Exploration Logs in Appendix B.

The soil at the site generally consists of fill soils overlying silty sand soils although the transition between the two soil layers was not distinct. The fill soils were similar to the native soils and were generally comprised of brown fine sand and silt, with varying amounts of gravel. There were occasional occurrences of red brick, in the fill soils. Since the bottom depths of the USTs are estimated to be approximately 6.5 feet (Tank 004) and 8.5 feet (Tanks 001, 002 and 005) below grade, it is likely the fill soils extend to a similar depth as the bottom of each tank or the bottom of a concrete hold down pad, if it exists. Beneath the fill soils, the bore holes disclosed a gray silt and in some of the bore holes varying amounts of fine sand, extending to 16 feet below grade. At some locations, the native soil graded to fine to medium sand and silt (no gravel).

#### **4.1.2 Groundwater**

The degree of moisture within the recovered soil samples was consistent between locations. The soil samples became wet at approximately 8 to 10 feet below grade. This investigation did not include installation of monitoring wells to determine the groundwater flow direction. However, based on review of the 1980 USGS Topographic Map of Schenectady, groundwater flow is inferred to be north towards the Mohawk River. The Mohawk River is located approximately one mile north of the subject site.

#### 4.2 Field Screening Results

All recovered soil samples from GP-1 through GP-6 were screened for the presence of VOCs with a MiniRAE 2000 PID meter for evidence, if any, of a petroleum release. The PID meter screening results are presented in the Organic Vapor Headspace Analysis Logs enclosed in Appendix C. At bore hole locations GP-1, GP-4 and GP-5, the PID readings were generally less than one to two parts per million above background and there was no evidence of petroleum related staining or odors. One exception was the 8 to 10 foot interval at GP-4, which exhibited a slight odor, but the PID reading was only 2.4 ppm above background. Low or elevated PID readings were observed in select soil samples collected from bore holes GP-2, GP-3 and GP-6, as discussed below.

At GP-2, relatively low PID readings were obtained from the intervals between 8 to 10 feet and 12 to 14 feet below grade ranging from 3.1 ppm (12 to 14 feet) to 25.2 ppm (8 to 10 feet). The remaining soil samples at this location did not exhibit elevated PID readings (i.e., less than one ppm above background). There was petroleum related staining and/or odors noted within the 8 to 10 foot and 12 to 14 foot soil sample intervals at this location.

At GP-3, relatively low PID readings were obtained from the intervals between 8 to 10 feet and 12 to 14 feet below grade ranging from 24.6 ppm (10 to 12 feet) to 53.5 ppm (8 to 10 feet). The remaining soil samples at this location did not exhibit elevated PID readings (i.e., less than one ppm above background). There was petroleum related staining and/or odors noted within the 8 to 10 foot and 12 to 14 foot soil sample intervals at this location.

At GP-6, relatively low to elevated PID readings were obtained from the intervals between 4 to 16 feet ranging from 10.1 ppm (4 to 6 feet) to 720 ppm (8 to 10 feet) and back down to 2.5 ppm (14 to 16 feet). The remaining soil samples at this location did not exhibit elevated PID readings (i.e., less than one ppm above background). There were petroleum odors noted within the 6 to 8 foot (mild odor) and 8 to 10 foot (strong odor) soil sample intervals at this location, and petroleum related sheen was observed on the soil surface at approximately 9.5 feet below grade.

Based on the elevated PID reading at GP-6 and visual observations indicating evidence of a release, the New York State Department of Environmental Conservation (NYSDEC) Spill Hotline was contacted on April 14, 2004 and Spill Number 04-00440 was assigned to the incident.

#### **4.3 Soil Sampling Laboratory Analyses Results**

Based on the field screening PID meter results, some of the recovered soil samples did exhibit low to elevated PID readings which indicates total VOCs were detected. To confirm the PID results and determine the type and levels of contaminants present where PID readings were detected, soil samples were taken for laboratory analyses as described in Section 3.2.

The soil samples were analyzed for aromatic and chlorinated VOCs by EPA Method 8021 based on the findings of the UST investigations and the tanks reportedly having stored gasoline. The soil samples were analyzed on a total basis to determine the concentrations of contaminants, if any, which exceed their recommended soil cleanup objective values presented in the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046, Determination of Soil Cleanup Objectives and Cleanup Levels. The soil samples were analyzed by Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, Connecticut. Phoenix is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory (ELAP #11301).

Four soil samples from select bore holes were subjected to laboratory analysis as discussed in Section 3.2. The analytical results for these soil samples did not detect any volatile organic compounds with the exception of five compounds at two locations. Naphthalene, and n-butylbenzene were detected at bore hole GP-4 (8-10 feet) at concentrations of 650 ug/kg and 400 ug/kg, respectively. The concentrations of these compounds are below their NYSDEC TAGM recommended soil cleanup objective values of 13,000 ug/kg and 10,000 ug/kg, respectively. N-butylbenzene, n-propylbenzene, p-isopropyltoluene, and sec-butylbenzene, were detected at bore hole GP-6 (8-10 feet) at concentrations of 5,800 ug/kg, 2,700 ug/kg, 1,500 ug/kg and 1,800 ug/kg, respectively. The concentrations of these compounds are below their NYSDEC TAGM recommended soil cleanup objective values of 10,000 ug/kg, 3,700

ug/kg, 10,000 ug/kg and 10,000 ug/kg, respectively. A copy of the laboratory analysis report and chain of custody record are enclosed in Appendix D.

#### **4.4 Groundwater Sampling Laboratory Analyses Results**

Groundwater samples were collected from bore holes GP-1, GP-2, GP-3, GP-4 and GP-6 to determine the general groundwater quality in the area of the USTs and to determine if the groundwater quality has been impacted by the PID screening contamination detected in some of the soil samples. The samples were analyzed in the laboratory by Phoenix Environmental Laboratories, Inc. of Manchester, Connecticut. The groundwater samples were analyzed for aromatic and chlorinated VOCs by EPA Method 8021.

The analytical results did not detect any volatile organic compounds within the groundwater samples collected from bore holes GP-1, GP-2, GP-3, GP-4 and GP-6. A copy of the laboratory analysis report and chain of custody record are enclosed in Appendix D.

## 5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

C.T. Male has completed the Petroleum Storage Tanks and Geoprobe Subsurface Investigations conducted at 714 Broadway Street the City of Schenectady in relation to one above ground storage tank and four underground storage tanks (USTs) at the site. The purpose of the tanks and subsurface investigations was to determine the number of tanks present, potential size and contents, to conduct a tank assessment to determine if a release of petroleum had occurred, and/or to determine the quality of soil and groundwater in the area of four abandoned USTs.

Based on the work completed, there are one 275 gallon above ground heating oil tank (Tank 003) inside the building and four USTs (Tanks 001, 002, 004 and 005) in the paved area south of the building on-site as shown on Figure 3. Three of the USTs contain petroleum contaminated water and the other UST and above ground heating oil tank appear to be essentially empty. Evidence of petroleum contamination was detected in the soil based on PID screening results and visual observations (staining and odor), and based on the laboratory analyses results. However, the levels of volatile organic compounds (VOCs) detected in two (GP-4 and GP-6) of the four soil samples analyzed in the laboratory were below the NYSDEC TAGM 4046, Determination of Soil Cleanup Objectives and Cleanup Levels criteria. The findings during the subsurface investigation were reported to the NYSDEC Spill Hotline and Spill Number 4-00440 was assigned to the incident.

The horizontal extent of the petroleum contamination detected at GP-6, southwest of the tank cluster was not able to be determined during the one day of Geoprobe subsurface investigation, as there was not sufficient time to conduct additional bore holes. The highest PID readings and strongest petroleum odor were detected at this location within the 8 to 10 foot sample interval (concentrated at 9.5 to 10 feet). Low PID readings and petroleum odor were obtained within the 8 to 10 foot sample interval (at the water table) at bore holes to the north (GP-2), northeast (GP-4) and east (GP-3). The findings suggest either the contamination is originating from the tanks and the groundwater is flowing to the southwest towards GP-6, or there is a source upgradient of GP-6 and the groundwater is flowing to the northeast. It is not known where the fuel island associated with the former gasoline station was located

on-site. According to the previous property owner, the fuel island was not present when he purchased the property in approximately 1978.

No evidence of petroleum contamination was detected in the five groundwater samples collected and analyzed for VOCs.

It is recommended that the USTs be properly closed in accordance with 6 NYCRR Part 613.9(b) and 40 CFR Part 280.72 and the above ground tank be properly closed in accordance with 6 NYCRR Part 613.9(b).

The information presented in this report is limited to the investigation conducted as described herein, and is not necessarily all inclusive of conditions present at the subject site. If you have any questions regarding this report, please contact this office at (518) 786-7400.

Respectfully submitted,  
C.T. MALE ASSOCIATES, P.C.



Elizabeth W. Rovers, P.E.  
Managing Engineer

/ewr  
CTMA Project No. 04.9133  
June 4, 2004

**FIGURES**

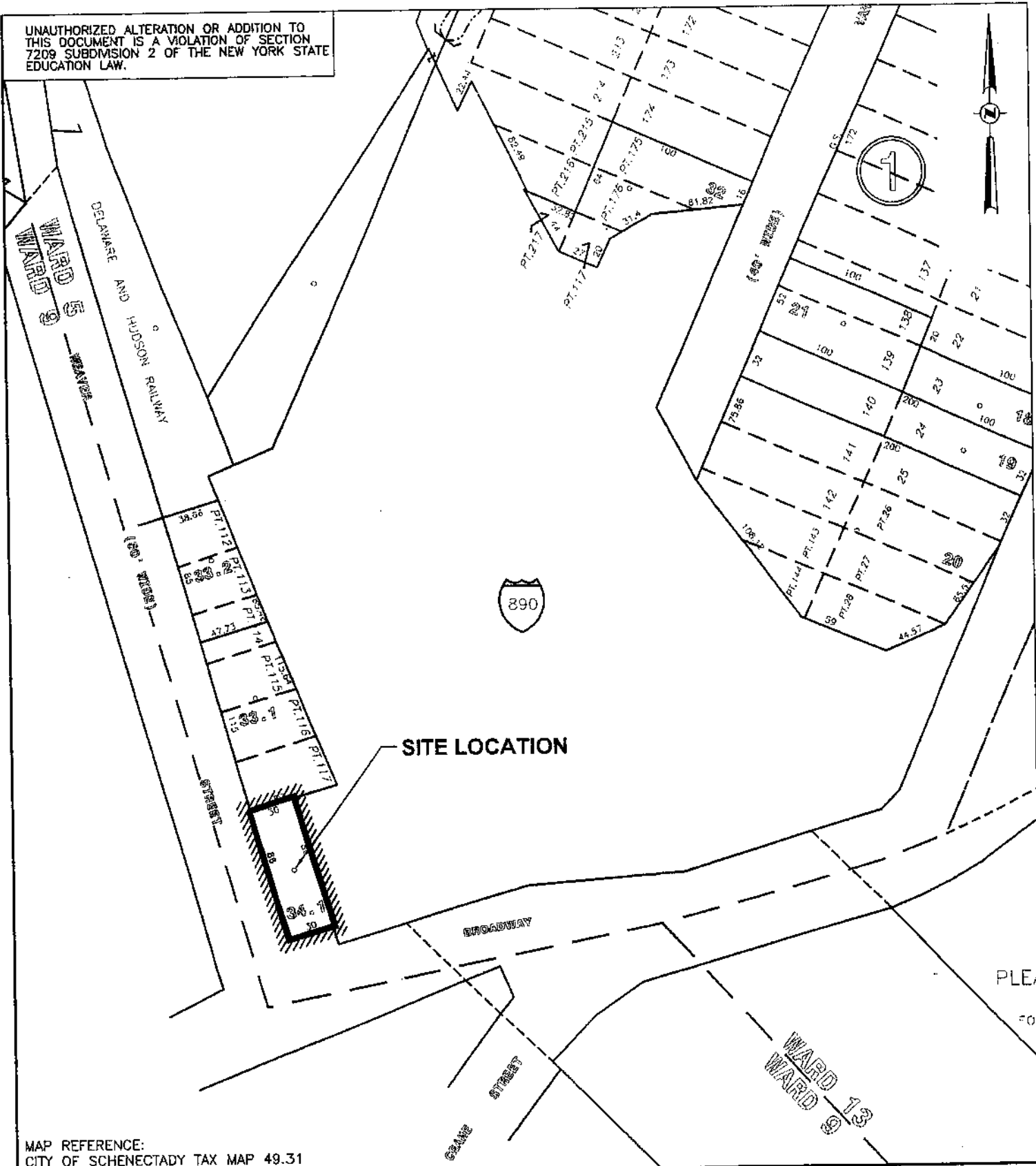
**FIGURE 1**  
**SITE LOCATION MAP**



**FIGURE 2**  
**TAX MAP**

NO XREFS

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.



SITE LOCATION

MAP REFERENCE:  
CITY OF SCHENECTADY TAX MAP 49.31

FIGURE 2  
CITY OF SCHENECTADY TAX MAP  
714 BROADWAY SITE

CAD DWG. FILE NAME: ... MAP.DWG

Date	RECORD OF WORK	Appr.
Drafter: JAM	Checker:	
Appr. by:	Proj. No. 04.9133	

CITY OF SCHENECTADY	SCHENECTADY COUNTY, NY
<b>C.T. MALE ASSOCIATES, P.C.</b> 50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110 518.786.7400 * FAX 518.786.7299	
Architecture & Building Systems Engineering * Civil Engineering Environmental Services * Survey & Land Information Services	
SCALE: NOT TO SCALE	DATE: MARCH 2004



**FIGURE 3**  
**SAMPLING LOCATIONS MAP**

# LEGEND



APPROXIMATE LOCATION OF UTILITY POLE.



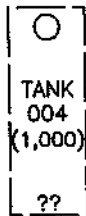
APPROXIMATE LOCATION OF TRAFFIC SIGNAL BOX.



APPROXIMATE LOCATION OF TRAFFIC SIGNAL POLE.

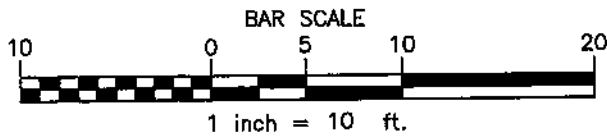
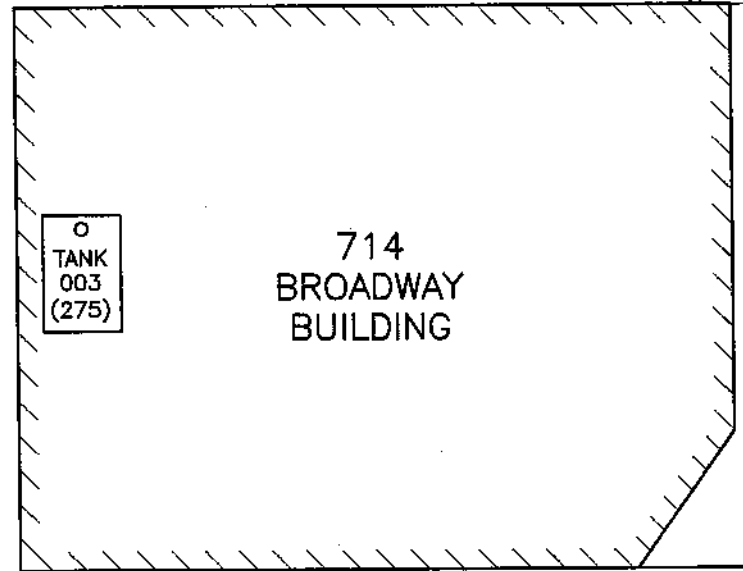


APPROXIMATE LOCATION AND ID OF GEOPROBE BORE HOLE.



INFERRED ORIENTATION AND LENGTH OF UNDERGROUND STORAGE TANK. ESTIMATED SIZE IN GALLONS IS SHOWN.

ADJOINING  
PROPERTY  
(BUILDING)



NOTE:  
THE LOCATIONS AND FEATURES DEPICTED  
ON THIS MAP ARE APPROXIMATE AND DO  
NOT REPRESENT AN ACTUAL FIELD  
SURVEY.

3AD DWG. FILE NAMESAMP LOC.DWG

DATE	REVISIONS RECORD/DESCRIPTION	DRAFTED	CHECK	APPR.
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			

**APPENDIX A**

**TANK INVESTIGATION LABORATORY ANALYSES  
REPORT AND CHAIN OF CUSTODY RECORD**



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 06, 2004

FOR: Attn: Ms. Liz Rovers  
 CT Male Associates, PC  
 50 Century Hill Drive  
 Latham, NY 12110

### Sample Information

Matrix: WATER  
 Location Code: CT-MALE  
 Rush Request:  
 P.O.#: 049133

### Custody Information

Collected by: SB  
 Received by: KJB  
 Analyzed by: see "By" below

### Date      Time

03/30/04      14:00  
 03/31/04      10:40

SDG I.D.: GAF46457

Phoenix I.D.: AF46457

## Laboratory Data

Client ID: 714 BROADWAY UST INVEST TANK-5

Parameter	Result	RL	Units	Date	Time	By	Reference
<b><u>Volatile Organic Compounds</u></b>							
1,1,1,2-Tetrachloroethane	ND	10	ug/L	04/02/04		RM	8021/8260
1,1,1-Trichloroethane	ND	10	ug/L	04/02/04		RM	8021/8260
1,1,2,2-Tetrachloroethane	ND	10	ug/L	04/02/04		RM	8021/8260
1,1,2-Trichloroethane	ND	10	ug/L	04/02/04		RM	8021/8260
1,1-Dichloroethane	ND	10	ug/L	04/02/04		RM	8021/8260
1,1-Dichloroethene	ND	10	ug/L	04/02/04		RM	8021/8260
1,1-Dichloropropene	ND	10	ug/L	04/02/04		RM	8021/8260
1,2,3-Trichlorobenzene	ND	10	ug/L	04/02/04		RM	8021/8260
1,2,3-Trichloropropane	35	10	ug/L	04/02/04		RM	8021/8260
1,2,4-Trichlorobenzene	ND	10	ug/L	04/02/04		RM	8021/8260
1,2,4-Trimethylbenzene	1300	10	ug/L	04/02/04		RM	8021/8260
1,2-Dibromo-3-chloropropane	ND	10	ug/L	04/02/04		RM	8021/8260
1,2-Dichlorobenzene	ND	10	ug/L	04/02/04		RM	8021/8260
1,2-Dichloroethane	ND	10	ug/L	04/02/04		RM	8021/8260
1,2-Dichloropropane	ND	10	ug/L	04/02/04		RM	8021/8260
1,3,5-Trimethylbenzene	310	10	ug/L	04/02/04		RM	8021/8260
1,3-Dichlorobenzene	ND	10	ug/L	04/02/04		RM	8021/8260
1,3-Dichloropropane	ND	10	ug/L	04/02/04		RM	8021/8260
1,4-Dichlorobenzene	ND	10	ug/L	04/02/04		RM	8021/8260
2,2-Dichloropropane	ND	10	ug/L	04/02/04		RM	8021/8260
2-Chlorotoluene	ND	10	ug/L	04/02/04		RM	8021/8260
4-Chlorotoluene	ND	10	ug/L	04/02/04		RM	8021/8260
Benzene	ND	10	ug/L	04/02/04		RM	8021/8260

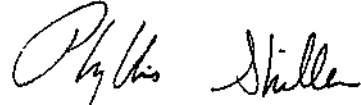
Parameter	Result	RL	Units	Date	Time	By	Reference
Bromobenzene	ND	10	ug/L	04/02/04		RM	8021/8260
Bromochloromethane	ND	10	ug/L	04/02/04		RM	8021/8260
Bromodichloromethane	ND	10	ug/L	04/02/04		RM	8021/8260
Bromoform	ND	10	ug/L	04/02/04		RM	8021/8260
Bromomethane	ND	10	ug/L	04/02/04		RM	8021/8260
Carbon tetrachloride	ND	10	ug/L	04/02/04		RM	8021/8260
Chlorobenzene	ND	10	ug/L	04/02/04		RM	8021/8260
Chloroethane	ND	10	ug/L	04/02/04		RM	8021/8260
Chloroform	ND	10	ug/L	04/02/04		RM	8021/8260
Chloromethane	ND	10	ug/L	04/02/04		RM	8021/8260
cis-1,2-Dichloroethene	ND	10	ug/L	04/02/04		RM	8021/8260
Dibromochloromethane	ND	10	ug/L	04/02/04		RM	8021/8260
Dibromoethane	ND	10	ug/L	04/02/04		RM	8021/8260
Dibromomethane	ND	10	ug/L	04/02/04		RM	8021/8260
Dichlorodifluoromethane	ND	10	ug/L	04/02/04		RM	8021/8260
Ethylbenzene	ND	10	ug/L	04/02/04		RM	8021/8260
Hexachlorobutadiene	ND	10	ug/L	04/02/04		RM	8021/8260
Isopropylbenzene	ND	10	ug/L	04/02/04		RM	8021/8260
m&p-Xylene	300	10	ug/L	04/02/04		RM	8021/8260
Methyl t-butyl ether (MTBE)	ND	20	ug/L	04/02/04		RM	8021/8260
Methylene chloride	ND	10	ug/L	04/02/04		RM	8021/8260
n-Butylbenzene	ND	10	ug/L	04/02/04		RM	8021/8260
n-Propylbenzene	ND	10	ug/L	04/02/04		RM	8021/8260
Naphthalene	11	10	ug/L	04/02/04		RM	8021/8260
o-Xylene	94	10	ug/L	04/02/04		RM	8021/8260
p-Isopropyltoluene	18	10	ug/L	04/02/04		RM	8021/8260
sec-Butylbenzene	ND	10	ug/L	04/02/04		RM	8021/8260
Styrene	ND	10	ug/L	04/02/04		RM	8021/8260
tert-Butylbenzene	ND	10	ug/L	04/02/04		RM	8021/8260
Tetrachloroethene	ND	10	ug/L	04/02/04		RM	8021/8260
Toluene	ND	10	ug/L	04/02/04		RM	8021/8260
trans-1,2-Dichloroethene	ND	10	ug/L	04/02/04		RM	8021/8260
Trichloroethene	ND	10	ug/L	04/02/04		RM	8021/8260
Trichlorofluoromethane	ND	10	ug/L	04/02/04		RM	8021/8260
Vinyl chloride	ND	10	ug/L	04/02/04		RM	8021/8260
<b>QA/QC Surrogates</b>							
% Bromofluorobenzene	90		%	04/02/04		RM	8021/8260

---

**Comments:**

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

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



Phyllis Shiller, Laboratory Director

April 06, 2004



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

April 06, 2004

## QA/QC Data

SDG I.D.: GAF46457

Parameter	Blank	LCS %	MS Rec %	MS Dup Rec %	RPD
QA/QC Batch Sample No: AF46784 (AF46457)					
<b>Volatiles Organics</b>					
1,1,1,2-Tetrachloroethane	ND	95			
1,1,1-Trichloroethane	ND	99			
1,1,2,2-Tetrachloroethane	ND	121			
1,1,2-Trichloroethane	ND	121			
1,1-Dichloroethane	ND	92			
1,1-Dichloroethene	ND	87	102	103	1.0
1,1-Dichloropropene	ND	86			
1,2,3-Trichlorobenzene	ND	71			
1,2,3-Trichloropropane	ND	117			
1,3,5-Trimethylbenzene	ND				
1,2,4-Trichlorobenzene	ND	81			
1,2,4-Trimethylbenzene	ND	92			
1,2-Dibromo-3-chloropropane	ND	116			
1,2-Dichlorobenzene	ND	100			
1,2-Dichloroethane	ND	100			
1,2-Dichloropropane	ND	101			
1,3,5-Trimethylbenzene	ND	94			
1,3-Dichlorobenzene	ND	99			
1,3-Dichloropropane	ND	100			
1,4-Dichlorobenzene	ND	98			
2,2-Dichloropropane	ND	95			
2-Chlorotoluene	ND	98			
4-Chlorotoluene	ND	97			
Benzene	ND	105	110	108	1.8
Bromobenzene	ND	104			
Bromochloromethane	ND	111			
Bromodichloromethane	ND	102			
Bromoform	ND	113			
Bromomethane	ND	141			
Carbon Tetrachloride	ND	105			
Chlorobenzene	ND	99	97	98	1.0
Chloroethane	ND	106			

**QA/QC Data**

SDG I.D.: GAF46457

Parameter	Blank	LCS %	MS Rec %	MS Dup Rec %	RPD
Chloroform	ND	106			
Chloromethane	ND				
cis-1,2-Dichloroethene	ND	103			
cis-1,3-Dichloropropene	ND	101			
Dibromochloromethane	ND	100			
Dibromoethane	ND	115			
Dibromomethane	ND	113			
Dichlorodifluoromethane	ND	72			
Ethylbenzene	ND	92			
Hexachlorobutadiene	ND	94			
Isopropylbenzene	ND	98			
m&p-Xylene	ND	95			
Methyl t Butyl Ether (MTBE)	ND				
Methylene Chloride	ND	107			
n-Butylbenzene	ND	91			
n-Propylbenzene	ND	90			
Naphthalene	ND	62			
o-Xylene	ND	93			
n-Isopropyltoluene	ND	96			
n-Butylbenzene	ND	93			
Styrene	ND	95			
tert-Butylbenzene	ND	96			
Tetrachloroethene	ND	85			
Toluene	ND	106	110	107	2.8
Total Trihalomethanes (TTHM)	ND				
trans-1,2-Dichloroethene	ND	90			
trans-1,3-Dichloropropene	ND	104			
Trichloroethene	ND	89	92	90	2.2
Trichlorofluoromethane	ND	89			
Vinyl Chloride	ND				
% Bromofluorobenzene	81	91	76	80	5.1

**Comment:** LFB was analyzed with this batch instead of MS/MSD

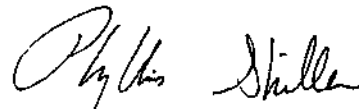
If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

RPD - Relative Percent Difference

LCS - Laboratory Control Sample



Phyllis Shiller, Laboratory Director

April 06, 2004



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

**CHAIN OF CUSTODY RECORD**

DATE RCVD: \_\_\_\_\_

Customer: CT Hawk Associates, PC  
 Address: 50 Coaster Hill Drive  
Latham, NY 12110

Project: TH Hazardous Site Investigation  
 Report To: Liz Rowers  
 Invoice To: Liz Rowers

Project P.O.: 0119133  
 Phone #: (518) 786-7492  
 Fax #: (518) 786-7499

Client Sample - Information - Identification				Analysis Requested																	
Item #	Customers Sample Ident	Sample Matrix	Date	Time	VOA VIALS (w/ML)	PL (V) ENO <sub>3</sub> (AS)	PL (V) + N <sub>2</sub> O <sub>4</sub> (AS)	GL (V) AS	GL + H <sub>2</sub> SO <sub>4</sub> (AS)	GL (V) + HNO <sub>3</sub> (AS)	Bacteria Bottle	PHOENIX SAMPLE #									
	Tank-5	H <sub>2</sub> O	3/30/04	11:00 AM	3	1	1	1	1	1	1	46157									
	Tank-6	H <sub>2</sub> O	3/30/04	11:00 AM	3	1	1	1	1	1	1	46158									
	Tank-7	H <sub>2</sub> O	3/30/04	11:00 AM	3	1	1	1	1	1	1	46159									
	TANK BLANK	H <sub>2</sub> O			2							46160									

Item #	Relinquished by:	Accepted by:	Date:	Time:
	<i>[Signature]</i>	<i>[Signature]</i>	3/30/04	1605
	<i>[Signature]</i>	<i>[Signature]</i>	3/30/04	1615
	<i>[Signature]</i>	<i>[Signature]</i>	3/31/04	1000

Comments:  
 Main samples onsite at 76  
 analyze per Liz Rowers  
 Run Tank 5 Sample for  
 FORI VOC Full List  
 per Liz Rowers 4/10/04

Standard lab turnaround is 10 working days. Accelerated turnarounds are always available. Check with office on prevailing surcharge. ACCELERATED TURN-AROUND TIME REQUESTED: 1 2 3 4 5 working days.

**APPENDIX B**

**GEOPROBE SUBSURFACE EXPLORATION LOGS**

GEOPROBE SUBSURFACE EXPLORATION LOG



**BORING NO.:** GP-1  
**ELEV.:**  
**START DATE:** 4/14/04    **DATUM:**  
**FINISH DATE:** 4/14/04  
**SHEET 1 OF 1**

**PROJECT:** City of Schenectady, UST Investigations

**CTM PROJECT NO.:** 04.9133

**LOCATION:** 714 Broadway, Schenectady, NY

**CTM OBSERVER:** Steve Bieber

DEPTH (FT.)	SAMPLE			SAMPLE CLASSIFICATION	NOTES
	INTERVAL	NUMBER	RECOVERY (FT)		
4		1	3.1	0-1" Asphalt	Lab soil sample collected from 8' to 10'
				1" to 2" Gray fine Gravel, sub base Fill: 2" to 4' Light Brown fine SAND and SILT, little gravel, trace red brick	
8		2	3.7	Fill: Light Brown fine SAND and SILT, little gravel, trace red brick (Moist at 3.5')	
12		3	4.0	Light Brown fine SAND and SILT, little gravel (Wet) 8' 9.5'	
				Gray Silt, trace fine sand (Moist) 12'	
16		4	4.0	Light Brown fine SAND and SILT (Wet) 13.5'	
				Gray Silt, trace fine sand (Moist) 14'	
				Gray fine to medium SAND, Some Silt (little Moist)	
				Boring Terminated at 16'	
20					
24				Exposed Screen Point 15 Sampler from 8' to 11' Purged 0.50 gallons Water little opaque in color Lab groundwater sample collected at 9:40 AM	
28					

**DRILLING CONTRACTOR:** SJB Services, Inc.      **GEOPROBE TYPE:** Model 540 U Truck Mounted  
**METHOD OF SAMPLING:** Direct Push w/ Percussion Hammer, 4"X2" Macro Core Sampler with Acetate Liner, Screen Point 15 Groundwater Sampler

**GROUNDWATER LEVEL READINGS**

DATE	LEVEL	REFERENCE MEASURING POINT

THE SUBSURFACE INFORMATION SHOWN HEREON WAS OBTAINED FOR C.T. MALE ASSESSMENT PURPOSES. IT IS MADE AVAILABLE TO AUTHORIZED USERS ONLY THAT THEY MAY HAVE ACCESS TO THE SAME INFORMATION AVAILABLE TO C.T. MALE. IT IS PRESENTED IN GOOD FAITH, BUT IS NOT INTENDED AS A SUBSTITUTE FOR INVESTIGATIONS, INTERPRETATION OR JUDGMENT OF SUCH AUTHORIZED USERS.

**SAMPLE CLASSIFICATION BY:**  
SB

GEOPROBE SUBSURFACE EXPLORATION LOG



**BORING NO.:** GP-2  
**ELEV.:** **DATUM:**  
**START DATE:** 4/14/04 **FINISH DATE:** 4/14/04  
**SHEET 1 OF 1**

**PROJECT:** City of Schenectady, UST Investigations

**CTM PROJECT NO.:** 04.9133

**LOCATION:** 714 Broadway, Schenectady, NY

**CTM OBSERVER:** Steve Bieber

DEPTH (FT.)	SAMPLE			SAMPLE CLASSIFICATION	NOTES	
	INTERVAL	NUMBER	RECOVERY (FT)			
4		1	3.2	0-1" Asphalt	Original location of GP-2 abandoned due to refusal at 1.2' below grade. Concrete in tip. Moved location 1' East towards Tank 001.	
				1" to 1' GRAVEL sub base, trace red brick (Dry)		1'
				Brown fine SAND and SILT (Dry)		4'
8		2	3	Brown fine SAND and SILT and GRAVEL (Dry)	Becomes moist at 6'	
				Brown fine SAND and SILT (Moist)		4.5'
12		3	3.5	Brown fine SAND and SILT (Wet)	Lab soil sample collected from 8' to 10'	
				Gray SILT and SAND (Moist)		10'
16		4	2.0	Brown fine SAND and SILT changing to Gray SILT and SAND (Moist to Wet)	Discolored black at 8' to 10'	
						12'
20				Boring Terminated at 16'		
				Exposed Screen Point 15 Sampler from 12' to 15'		
				Purged 0.25 gallon		
				Water grayish in color		
24				Lab groundwater sample collected at 11:15 AM		
28						

**DRILLING CONTRACTOR:** SJB Services, Inc. **GEOPROBE TYPE:** Model 540 U Truck Mounted  
**METHOD OF SAMPLING:** Direct Push w/ Percussion Hammer, 4"X2" Macro Core Sampler with Acetate Liner, Screen Point 15 Groundwater Sampler

GROUNDWATER LEVEL READINGS		
DATE	LEVEL	REFERENCE MEASURING POINT

THE SUBSURFACE INFORMATION SHOWN HEREON WAS OBTAINED FOR C.T. MALE ASSESSMENT PURPOSES. IT IS MADE AVAILABLE TO AUTHORIZED USERS ONLY THAT THEY HAVE ACCESS TO THE SAME INFORMATION AVAILABLE TO C.T.MALE. IT IS PRESENTED IN GOOD FAITH, BUT IS NOT INTENDED AS A SUBSTITUTE FOR INVESTIGATIONS, INTERPRETATION OR JUDGMENT OF SUCH AUTHORIZED USERS.

SAMPLE CLASSIFICATION BY:  
 SB



**BORING NO.:** GP-3  
**ELEV.:** \_\_\_\_\_ **DATUM:** \_\_\_\_\_  
**START DATE:** 4/14/04 **FINISH DATE:** 4/14/04  
**SHEET 1 OF 1**

**PROJECT:** City of Schenectady, UST Investigations

**CTM PROJECT NO.:** 04.9133

**LOCATION:** 714 Broadway, Schenectady, NY

**CTM OBSERVER:** Steve Bieber

DEPTH (FT.)	SAMPLE			SAMPLE CLASSIFICATION	NOTES
	INTERVAL	NUMBER	RECOVERY (FT)		
4		1	3.0	0-1" Asphalt	
				1" to 3" GRAVEL subbase (Dry) 0.25'	
				Fill: Brown fine SAND and SILT (Dry) 3'	
				Fill: Brown fine SAND and GRAVEL (Dry)	
8		2	3	Crushed Red Brick Layer at 7' to 7.2' 7.2'	Lab soil sample collected from 8' to 10' Discolored black w/petrol. odor at 9.5' Wet at 9.5'  Petroleum odor at 12' to 14'
				Brown fine SAND and SILT (Dry)	
12		3	4.0	Brown fine SAND and SILT 10'	
				Gray SILT (Moist)	
16		4	4.0	Gray SILT (Wet)	
				Gray SILT (Moist)	
Boring Terminated at 16'					
20				Exposed Screen Point 15 Sampler from 12' to 15'	
24				Purged 0.50 gallon Water opaque in color Lab groundwater sample collected at 1:10 PM	
28					

**DRILLING CONTRACTOR:** SJB Services, Inc. **GEOPROBE TYPE:** Model 540 U Truck Mounted  
**METHOD OF SAMPLING:** Direct Push w/ Percussion Hammer, 4'X2" Macro Core Sampler with Acetate Liner, Screen Point 15 Groundwater Sampler

**GROUNDWATER LEVEL READINGS**

DATE	LEVEL	REFERENCE MEASURING POINT

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**SAMPLE CLASSIFICATION BY:**  
 SB

GEOPROBE SUBSURFACE EXPLORATION LOG



**BORING NO.:** GP-4  
**ELEV.:** **DATUM:**  
**START DATE:** 4/14/04 **FINISH DATE:** 4/14/04  
**SHEET 1 OF 1**

**PROJECT:** City of Schenectady, UST Investigations

**CTM PROJECT NO.:** 04.9133

**LOCATION:** 714 Broadway, Schenectady, NY

**CTM OBSERVER:** Steve Bieber

DEPTH (FT.)	SAMPLE			SAMPLE CLASSIFICATION	NOTES
	INTERVAL	NUMBER	RECOVERY (FT)		
4		1	3.0	0 - 1' Asphalt	Original location of GP-4 abandoned due to refusal at 5.1' below grade . Moved GP-4 location 1.5' West towards Tanks 001 and 005  Discolored at 7.5'  Lab soil sample collected from 8' to 10' Discolored soil and Slight petroleum odor at 9.5' to 10'  Slight petroleum odor
				1' to 3' GRAVEL subbase 0.25'	
8		2	3	Brown fine SAND and SILT, Some Gravel (Dry)	
				(Moist) 8'	
12		3	3.1	Brown fine SAND and SILT (Wet) 9.2'	
				Gray SILT (Moist)	
16		4	4.0	Gray SILT (Saturated)	
				Gray SILT and fine SAND (Dry to Moist) 13.5'	
20				Boring Terminated at 16'	
24				Exposed Screen Point 15 Sampler from 12' to 15' Purged 0.25 gallon Water brown to gray in color Lab groundwater sample collected at 2:45 PM	
28					

**DRILLING CONTRACTOR:** SJB Services, Inc. **GEOPROBE TYPE:** Model 540 U Truck Mounted  
**METHOD OF SAMPLING:** Direct Push w/ Percussion Hammer, 4'X2" Macro Core Sampler with Acetate Liner, Screen Point 15 Groundwater Sampler

**GROUNDWATER LEVEL READINGS**

DATE	LEVEL	REFERENCE MEASURING POINT

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**SAMPLE CLASSIFICATION BY:**  
SB

GEOPROBE SUBSURFACE EXPLORATION LOG



**BORING NO.:** GP-5  
**ELEV.:** **DATUM:**  
**START DATE:** 4/14/04 **FINISH DATE:** 4/14/04  
**SHEET 1 OF 1**

**PROJECT:** City of Schenectady, UST Investigations

**CTM PROJECT NO.:** 04.9133

**LOCATION:** 714 Broadway, Schenectady, NY

**CTM OBSERVER:** Steve Bieber

DEPTH (FT.)	SAMPLE			SAMPLE CLASSIFICATION	NOTES	
	INTERVAL	NUMBER	RECOVERY (FT)			
4		1	3.0	0-1" Asphalt 1' to 3" GRAVEL subbase Fill: Brown fine SAND and SILT, little gravel, trace red brick (Dry)	0.25' 4'	
		2	2	Brown fine SAND and SILT, Some Gravel  (Moist)		Moist at 7.5'
		3	4.0	Brown fine SAND and SILT, Some Gravel (Wet)  Gray SILT (Moist)		
12	4	4.0	Gray SILT (Wet)	13.5'		
16			Gray SILT and SAND (Moist)			
20				Boring Terminated at 16'		
24						
28						

**DRILLING CONTRACTOR:** SJB Services, Inc. **GEOPROBE TYPE:** Model 540 U Truck Mounted  
**METHOD OF SAMPLING:** Direct Push w/ Percussion Hammer, 4"X2" Macro Core Sampler with Acetate Liner, Screen Point 15 Groundwater Sampler

**GROUNDWATER LEVEL READINGS**

DATE	LEVEL	REFERENCE MEASURING POINT

THE SUBSURFACE INFORMATION SHOWN HEREON WAS OBTAINED FOR C.T. MALE ASSESSMENT PURPOSES. IT IS MADE AVAILABLE TO AUTHORIZED USERS ONLY THAT THEY MAY HAVE ACCESS TO THE SAME INFORMATION AVAILABLE TO C.T.MALE. IT IS PRESENTED IN GOOD FAITH, BUT IS NOT INTENDED AS A SUBSTITUTE FOR INVESTIGATIONS, INTERPRETATION OR JUDGMENT OF SUCH AUTHORIZED USERS.

**SAMPLE CLASSIFICATION BY:**  
 SB

GEOPROBE SUBSURFACE EXPLORATION LOG



**BORING NO.:** GP-6  
**ELEV.:** **DATUM:**  
**START DATE:** 4/14/04 **FINISH DATE:** 4/14/04  
**SHEET 1 OF 1**

**PROJECT:** City of Schenectady, UST Investigations

**CTM PROJECT NO.:** 04.9133

**LOCATION:** 714 Broadway, Schenectady, NY

**CTM OBSERVER:** Steve Bieber

DEPTH (FT.)	SAMPLE			SAMPLE CLASSIFICATION	NOTES	
	INTERVAL	NUMBER	RECOVERY (FT)			
4		1	3.0	0 - 1" Asphalt	Large stone penetrated sampler	
				1' to 3" GRAVEL subbase		0.25'
				Brown fine SAND and SILT (Dry)		4'
8		2	2	Brown fine SAND and SILT and GRAVEL (Dry to Moist)	Dry to moist at 7.5'	
				Brown fine SAND and SILT and GRAVEL		
12		3	3.8	Gray SILT (Moist)	Lab soil sample collected from 8' to 10' Strong petroleum odor and visible sheen on soil surface at 9.5' Becomes wet at 9.5'	
				Gray SILT		10'
16		4	3.0	Gray SILT		
				Gray SILT, little fine sand (Moist)		13.7'
20				Boring Terminated at 16'		
24				Exposed Screen Point 15 Sampler from 12' to 15' Purged 0.50 gallon Water opaque in color Lab groundwater sample collected at 4:30 PM		
28						

**DRILLING CONTRACTOR:** SJB Services, Inc. **GEOPROBE TYPE:** Model 540 U Truck Mounted  
**METHOD OF SAMPLING:** Direct Push w/ Percussion Hammer, 4"X2" Macro Core Sampler with Acetate Liner, Screen Point 15 Groundwater Sampler

**GROUNDWATER LEVEL READINGS**

DATE	LEVEL	REFERENCE MEASURING POINT

THE SUBSURFACE INFORMATION SHOWN HEREON WAS OBTAINED FOR C.T. MALE ASSESSMENT PURPOSES. IT IS MADE AVAILABLE TO AUTHORIZED USERS ONLY THAT THEY MAY HAVE ACCESS TO THE SAME INFORMATION AVAILABLE TO C.T.MALE. IT IS PRESENTED IN GOOD FAITH, BUT IS NOT INTENDED AS A SUBSTITUTE FOR INVESTIGATIONS, INTERPRETATION OR JUDGMENT OF SUCH AUTHORIZED USERS.

**SAMPLE CLASSIFICATION BY:**  
SB

**APPENDIX C**  
**ORGANIC VAPOR HEADSPACE ANALYSIS LOGS**



# ORGANIC VAPOR HEADSPACE ANALYSIS LOG

PROJECT: City of Schenectady, UST Investigations				PROJECT #:	04.9133	PAGE 1 OF 3
CLIENT: City of Schenectady						DATE
LOCATION: 714 Broadway						COLLECTED: 4/14/04
INSTRUMENT USED: MiniRAE 2000				LAMP	10.6 EV	DATE
DATE INSTRUMENT CALIBRATED 4/14/04 (Prior to use)				BY: SB	ANALYZED: 4/14/04	
TEMPERATURE OF SOIL: Ambient						ANALYST: Steve Beiber
EXPLORATION POINT	SAMPLE NUMBER	DEPTH (FEET)	SAMPLE TYPE	SAMPLE READING (PPM)	BACKGROUND READING (PPM)	REMARKS
GP-1	1	0-2	Soil	0.2	0.0 - 0.1	No odor/No staining
	2	2-4	Soil	0.1	0.0 - 0.1	No odor/No staining
	3	4-6	Soil	0.2	0.0 - 0.1	No odor/No staining
	4	6-8	Soil	0.1	0.0 - 0.1	No odor/No staining
	5	8-10	Soil	0.2	0.0 - 0.1	No odor/No staining
	6	10-12	Soil	0.1	0.0 - 0.1	No odor/No staining
	7	12-14	Soil	0.1	0.0 - 0.1	No odor/No staining
	8	14-16	Soil	0.2	0.0 - 0.1	No odor/No staining
GP-2	1	0-2	Soil	0.1	0.0 - 0.1	No odor/No staining
	2	2-4	Soil	0.3	0.0 - 0.1	No odor/No staining
	3	4-6	Soil	1.0	0.0 - 0.1	No odor/No staining
	4	6-8	Soil	0.1	0.0 - 0.1	No odor/No staining
	5	8-10	Soil	25.3	0.0 - 0.1	Strong petroleum odor/soil stained at 9.5' to 10'
	6	10-12	Soil	0.5	0.0 - 0.1	No odor/No staining
	7	12-14	Soil	3.2	0.0 - 0.1	Slight petroleum odor
	8	14-16	Soil	0.1	0.0 - 0.1	No odor/No staining
GP-3	1	0-2	Soil	0.2	0.0 - 0.1	No odor/No staining

\*Instrument was calibrated in accordance with manufacturer's recommended procedure using a calibration gas supplied by the manufacturer.

\*\*PPM represents concentration of detectable volatile and gaseous compounds in parts per million of air.

\*\*\*Due to poor sample recovery the sample is not sufficient enough to specify which portion of the recovered sample interval was collected.



# ORGANIC VAPOR HEADSPACE ANALYSIS LOG

PROJECT: City of Schenectady, UST Investigations				PROJECT #: 04.9133		PAGE 2 OF 3
CLIENT: City of Schenectady					DATE	
LOCATION: 714 Broadway					COLLECTED: 4/14/04	
INSTRUMENT USED: MiniRAE 2000			LAMP	10.6 EV		DATE
DATE INSTRUMENT CALIBRATED 4/14/04 (Prior to use)				BY: SB		ANALYZED: 4/14/04
TEMPERATURE OF SOIL: Ambient					ANALYST: Steve Belber	
EXPLORATION NUMBER	SAMPLE NUMBER	DEPTH (FEET)	SAMPLE TYPE	SAMPLE READING (PPM)	BACKGROUND READING (PPM)	REMARKS
GP-3	2	2-4	Soil	0.2	0.0 - 0.1	No odor/No staining
	3	4-6	Soil	0.2	0.0 - 0.1	No odor/No staining
	4	6-8	Soil	0.6	0.0 - 0.1	No odor/No staining
	5	8-10	Soil	53.6	0.0 - 0.1	Petroleum Odor/ Stained soil at 9.5' to 10'
	6	10-12	Soil	0.8	0.0 - 0.1	No odor/No staining
	7	12-14	Soil	24.7	0.0 - 0.1	Petroleum Odor
	8	14-16	Soil	0.4	0.0 - 0.1	No odor/No staining
	GP-4	1	0-2	Soil	0.2	0.0 - 0.1
2		2-4	Soil	0.1	0.0 - 0.1	No odor/No staining
3		4-6	Soil	0.1	0.0 - 0.1	No odor/No staining
4		6-8	Soil	0.0	0.0 - 0.1	No odor/No staining
5		8-10	Soil	2.5	0.0 - 0.1	Slight odor/Discolored soil at 9.5' to 10'
6		10-12	Soil	0.6	0.0 - 0.1	No odor/No staining
7		12-14	Soil	0.2	0.0 - 0.1	Slight petroleum odor
8		14-16	Soil	0.1	0.0 - 0.1	No odor/No staining
GP-5	1	0-2	Soil	0.1	0.0 - 0.1	No odor/No staining
	2	2-4	Soil	0.1	0.0 - 0.1	No odor/No staining
	3	4-6	Soil	0.1	0.0 - 0.1	No odor/No staining
	4	6-8	Soil	0.2	0.0 - 0.1	No odor/No staining

\*Instrument was calibrated in accordance with manufacturer's recommended procedure using a calibration gas supplied by the manufacturer.

\*\*PPM represents concentration of detectable volatile and gaseous compounds in parts per million of air.

\*\*\*Due to poor sample recovery the sample is not sufficient enough to specify which portion of the recovered sample interval was collected.



# ORGANIC VAPOR HEADSPACE ANALYSIS LOG

PROJECT: City of Schenectady, UST Investigations			PROJECT #: 04.9133		PAGE 3 OF 3	
CLIENT: City of Schenectady					DATE	
LOCATION: 714 Broadway					COLLECTED: 4/14/04	
INSTRUMENT USED: MiniRAE 2000			LAMP	10.6 EV	DATE	
DATE INSTRUMENT CALIBRATED		4/14/04 (Prior to use)		BY: SB	ANALYZED: 4/14/04	
TEMPERATURE OF SOIL: Ambient					ANALYST: Steve Belber	
EXPLORATION NUMBER	SAMPLE NUMBER	DEPTH (IN)	SAMPLE TYPE	SAMPLE READINGS (PPM)	BACKGROUND READINGS (PPM)	REMARKS
GP-5	5	8-10	Soil	0.2	0.0 - 0.1	No odor/No staining
	6	10-12	Soil	0.1	0.0 - 0.1	No odor/No staining
	7	12-14	Soil	0.2	0.0 - 0.1	No odor/No staining
	8	14-16	Soil	0.1	0.0 - 0.1	No odor/No staining
GP-6	1	0-2	Soil	0.1	0.0 - 0.1	No odor/No staining
	2	2-4	Soil	0.2	0.0 - 0.1	No odor/No staining
	3	4-6	Soil	10.2	0.0 - 0.1	No odor/No staining
	4	6-8	Soil	12.6	0.0 - 0.1	Mild odor/No staining
	5	8-10	Soil	720	0.0 - 0.1	Very strong odor/sheen on soil at 9.5'
	6	10-12	Soil	17.4	0.0 - 0.1	No odor/No staining
	7	12-14	Soil	22.5	0.0 - 0.1	No odor/No staining
	8	14-16	Soil	2.6	0.0 - 0.1	No odor/No staining

\*Instrument was calibrated in accordance with manufacturer's recommended procedure using a calibration gas supplied by the manufacturer.  
 \*\*PPM represents concentration of detectable volatile and gaseous compounds in parts per million of air.  
 \*\*\*Due to poor sample recovery the sample is not sufficient enough to specify which portion of the recovered sample interval was collected.

Note: Soil samples collected for lab analysis (i.e., Lab) were secured first, then remaining soil collected for field screening with PID meter.

**APPENDIX D**

**SUBSURFACE INVESTIGATION LABORATORY  
ANALYSES REPORT AND CHAIN OF CUSTODY  
RECORD**



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 April 23, 2004

FOR: Attn: Ms. Liz Rovers  
 CT Male Associates, PC  
 50 Century Hill Drive  
 Latham, NY 12110

Sample Information

Matrix: SOIL  
 Location Code: CT-MALE  
 Rush Request:  
 P.O.#: 049133

Custody Information

Collected by: SB  
 Received by: KJB  
 Analyzed by: see "By" below

Date Time

04/14/04 10:26  
 04/16/04 9:15

SDG I.D.: GAF50176

Phoenix I.D.: AF50176

Laboratory Data

Client ID: 714 BROADWAY UST INVEST GP-2S

Parameter	Result	RL	Units	Date	Time	By	Reference
Percent Solid	85		%	04/17/04		C/D	E160.3
<b><u>Volatile Organic Compounds</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,1,1-Trichloroethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,1,2-Trichloroethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,1-Dichloroethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,1-Dichloroethene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,1-Dichloropropene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,2,3-Trichloropropane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,2-Dibromoethane(EDB)	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,2-Dichlorobenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,2-Dichloroethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,2-Dichloropropane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,3-Dichlorobenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,3-Dichloropropane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
1,4-Dichlorobenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
2,2-Dichloropropane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
2-Chlorotoluene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260


Parameter	Result	RL	Units	Date	Time	By	Reference
4-Chlorotoluene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Benzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Bromobenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Bromochloromethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Bromodichloromethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Bromoform	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Bromomethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Carbon tetrachloride	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Chlorobenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Chloroethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Chloroform	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Chloromethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Dibromochloromethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Dibromomethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Dichlorodifluoromethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Ethylbenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Hexachlorobutadiene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Isopropylbenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Methyl tert-butyl ether (MTBE)	ND	10	ug/Kg	04/19/04		RM	8021/8260
Methylene chloride	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
n-Butylbenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
n-Propylbenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Naphthalene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
o-Xylene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
p&m-Xylene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
p-Isopropyltoluene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
sec-Butylbenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Styrene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
tert-Butylbenzene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Tetrachloroethene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Toluene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Trichloroethene	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Trichlorofluoromethane	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
Vinyl chloride	ND	5.0	ug/Kg	04/19/04		RM	8021/8260
<b>QA/QC Surrogates</b>							
%4-Bromofluorobenzene (Surrogate)	93		%	04/19/04		RM	8021/8260

---

**Comments:**

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

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



Phyllis Shiller, Laboratory Director

April 23, 2004



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 23, 2004

FOR: Attn: Ms. Liz Rovers  
 CT Male Associates, PC  
 50 Century Hill Drive  
 Latham, NY 12110

Sample Information

Matrix: SOIL  
 Location Code: CT-MALE  
 Rush Request:  
 P.O.#: 049133

Custody Information

Collected by: SB  
 Received by: KJB  
 Analyzed by: see "By" below

Date      Time

04/14/04      12:30  
 04/16/04      9:15

SDG I.D.: GAF50176

Phoenix I.D.: AF50177

## Laboratory Data

Client ID: 714 BROADWAY UST INVEST GP-3S

Parameter	Result	RL	Units	Date	Time	By	Reference
Percent Solid	83		%	04/17/04		C/D	E160.3
<b><u>Volatile Organic Compounds</u></b>							
1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1,1-Trichloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1,2-Trichloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1-Dichloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1-Dichloroethene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1-Dichloropropene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2,3-Trichlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2,3-Trichloropropane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2,4-Trichlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2,4-Trimethylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2-Dibromo-3-chloropropane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2-Dibromoethane(EDB)	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2-Dichlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2-Dichloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2-Dichloropropane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,3,5-Trimethylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,3-Dichlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,3-Dichloropropane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,4-Dichlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
2,2-Dichloropropane	ND	250	ug/Kg	04/19/04		RM	8021/8260
2-Chlorotoluene	ND	250	ug/Kg	04/19/04		RM	8021/8260

Parameter	Result	RL	Units	Date	Time	By	Reference
4-Chlorotoluene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Benzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Bromobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Bromochloromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Bromodichloromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Bromoform	ND	250	ug/Kg	04/19/04		RM	8021/8260
Bromomethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Carbon tetrachloride	ND	250	ug/Kg	04/19/04		RM	8021/8260
Chlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Chloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Chloroform	ND	250	ug/Kg	04/19/04		RM	8021/8260
Chloromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
cis-1,2-Dichloroethene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Dibromochloromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Dibromomethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Dichlorodifluoromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Ethylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Hexachlorobutadiene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Isopropylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Methyl tert-butyl ether (MTBE)	ND	500	ug/Kg	04/19/04		RM	8021/8260
Methylene chloride	ND	250	ug/Kg	04/19/04		RM	8021/8260
n-Butylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
n-Propylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Naphthalene	ND	250	ug/Kg	04/19/04		RM	8021/8260
o-Xylene	ND	250	ug/Kg	04/19/04		RM	8021/8260
p&m-Xylene	ND	250	ug/Kg	04/19/04		RM	8021/8260
p-Isopropyltoluene	ND	250	ug/Kg	04/19/04		RM	8021/8260
sec-Butylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Styrene	ND	250	ug/Kg	04/19/04		RM	8021/8260
tert-Butylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Tetrachloroethene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Toluene	ND	250	ug/Kg	04/19/04		RM	8021/8260
trans-1,2-Dichloroethene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Trichloroethene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Trichlorofluoromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Vinyl chloride	ND	250	ug/Kg	04/19/04		RM	8021/8260
<b>QA/QC Surrogates</b>							
%4-Bromofluorobenzene (Surrogate)	111		%	04/19/04		RM	8021/8260

---

**Comments:**

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

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



Phyllis Shiller, Laboratory Director

April 23, 2004



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 23, 2004

FOR: Attn: Ms. Liz Rovers  
 CT Male Associates, PC  
 50 Century Hill Drive  
 Latham, NY 12110

### Sample Information

Matrix: SOIL  
 Location Code: CT-MALE  
 Rush Request:  
 P.O.#: 049133

### Custody Information

Collected by: SB  
 Received by: KJB  
 Analyzed by: see "By" below

Date Time

04/14/04 14:10  
 04/16/04 9:15

SDG I.D.: GAF50176

Phoenix I.D.: AF50178

## Laboratory Data

Client ID: 714 BROADWAY UST INVEST GP-4S

Parameter	Result	RL	Units	Date	Time	By	Reference
Percent Solid	82		%	04/17/04		C/D	E160.3
<b>Volatile Organic Compounds</b>							
1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1,1-Trichloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1,2-Trichloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1-Dichloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1-Dichloroethene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,1-Dichloropropene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2,3-Trichlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2,3-Trichloropropane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2,4-Trichlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2,4-Trimethylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2-Dibromo-3-chloropropane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2-Dibromoethane(EDB)	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2-Dichlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2-Dichloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,2-Dichloropropane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,3,5-Trimethylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,3-Dichlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,3-Dichloropropane	ND	250	ug/Kg	04/19/04		RM	8021/8260
1,4-Dichlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
2,2-Dichloropropane	ND	250	ug/Kg	04/19/04		RM	8021/8260
2-Chlorotoluene	ND	250	ug/Kg	04/19/04		RM	8021/8260

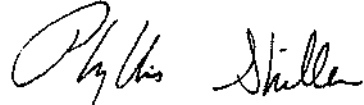
Parameter	Result	RL	Units	Date	Time	By	Reference
4-Chlorotoluene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Benzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Bromobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Bromochloromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Bromodichloromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Bromoform	ND	250	ug/Kg	04/19/04		RM	8021/8260
Bromomethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Carbon tetrachloride	ND	250	ug/Kg	04/19/04		RM	8021/8260
Chlorobenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Chloroethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Chloroform	ND	250	ug/Kg	04/19/04		RM	8021/8260
Chloromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
cis-1,2-Dichloroethene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Dibromochloromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Dibromomethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Dichlorodifluoromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Ethylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Hexachlorobutadiene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Isopropylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Methyl tert-butyl ether (MTBE)	ND	500	ug/Kg	04/19/04		RM	8021/8260
Methylene chloride	ND	250	ug/Kg	04/19/04		RM	8021/8260
n-Butylbenzene	400	250	ug/Kg	04/19/04		RM	8021/8260
n-Propylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Naphthalene	650	250	ug/Kg	04/19/04		RM	8021/8260
o-Xylene	ND	250	ug/Kg	04/19/04		RM	8021/8260
p&m-Xylene	ND	250	ug/Kg	04/19/04		RM	8021/8260
p-Isopropyltoluene	ND	250	ug/Kg	04/19/04		RM	8021/8260
sec-Butylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Styrene	ND	250	ug/Kg	04/19/04		RM	8021/8260
tert-Butylbenzene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Tetrachloroethene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Toluene	ND	250	ug/Kg	04/19/04		RM	8021/8260
trans-1,2-Dichloroethene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Trichloroethene	ND	250	ug/Kg	04/19/04		RM	8021/8260
Trichlorofluoromethane	ND	250	ug/Kg	04/19/04		RM	8021/8260
Vinyl chloride	ND	250	ug/Kg	04/19/04		RM	8021/8260
<b>QA/QC Surrogates</b>							
%4-Bromofluorobenzene (Surrogate)	87		%	04/19/04		RM	8021/8260

---

**Comments:**

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

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



Phyllis Shiller, Laboratory Director

April 23, 2004



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 23, 2004

FOR: Attn: Ms. Liz Rovers  
 CT Male Associates, PC  
 50 Century Hill Drive  
 Latham, NY 12110

### Sample Information

Matrix: SOIL  
 Location Code: CT-MALE  
 Rush Request:  
 P.O.#: 049133

### Custody Information

Collected by: SB  
 Received by: KJB  
 Analyzed by: see "By" below

Date            Time  
 04/14/04        15:50  
 04/16/04        9:15

SDG I.D.: GAF50176

Phoenix I.D.: AF50179

## Laboratory Data

Client ID: 714 BROADWAY UST INVEST GP-6S

Parameter	Result	RL	Units	Date	Time	By	Reference
Percent Solid	82		%	04/17/04		C/D	E160.3
<b><u>Volatile Organic Compounds</u></b>							
1,1,1,2-Tetrachloroethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,1,1-Trichloroethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,1,2,2-Tetrachloroethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,1,2-Trichloroethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,1-Dichloroethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,1-Dichloroethene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,1-Dichloropropene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,2,3-Trichlorobenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,2,3-Trichloropropane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,2,4-Trichlorobenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,2,4-Trimethylbenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,2-Dibromo-3-chloropropane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,2-Dibromoethane(EDB)	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,2-Dichlorobenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,2-Dichloroethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,2-Dichloropropane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,3,5-Trimethylbenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,3-Dichlorobenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,3-Dichloropropane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
1,4-Dichlorobenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
2,2-Dichloropropane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
2-Chlorotoluene	ND	1300	ug/Kg	04/22/04		RM	8021/8260

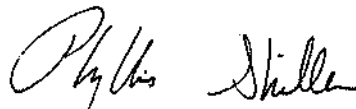
Parameter	Result	RL	Units	Date	Time	By	Reference
4-Chlorotoluene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Benzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Bromobenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Bromochloromethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Bromodichloromethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Bromoform	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Bromomethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Carbon tetrachloride	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Chlorobenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Chloroethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Chloroform	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Chloromethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
cis-1,2-Dichloroethene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Dibromochloromethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Dibromomethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Dichlorodifluoromethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Ethylbenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Hexachlorobutadiene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Isopropylbenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Methyl tert-butyl ether (MTBE)	ND	2500	ug/Kg	04/22/04		RM	8021/8260
Methylene chloride	ND	1300	ug/Kg	04/22/04		RM	8021/8260
n-Butylbenzene	5800	1300	ug/Kg	04/22/04		RM	8021/8260
n-Propylbenzene	2700	1300	ug/Kg	04/22/04		RM	8021/8260
Naphthalene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
o-Xylene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
p&m-Xylene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
p-Isopropyltoluene	1500	1300	ug/Kg	04/22/04		RM	8021/8260
sec-Butylbenzene	1800	1300	ug/Kg	04/22/04		RM	8021/8260
Styrene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
tert-Butylbenzene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Tetrachloroethene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Toluene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
trans-1,2-Dichloroethene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Trichloroethene	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Trichlorofluoromethane	ND	1300	ug/Kg	04/22/04		RM	8021/8260
Vinyl chloride	ND	1300	ug/Kg	04/22/04		RM	8021/8260
<b>QA/QC Surrogates</b>							
%4-Bromofluorobenzene (Surrogate)	130		%	04/22/04		RM	8021/8260

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**Comments:**

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

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



Phyllis Shiller, Laboratory Director

April 23, 2004



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 23, 2004

FOR: Attn: Ms. Liz Rovers  
CT Male Associates, PC  
50 Century Hill Drive  
Latham, NY 12110

## Sample Information

Matrix: WATER  
Location Code: CT-MALE  
Rush Request:  
P.O.#: 049133

## Custody Information

Collected by: SB  
Received by: KJB  
Analyzed by: see "By" below

## Date

04/14/04  
04/16/04

## Time

9:40  
9:15

SDG I.D.: GAF50176

Phoenix I.D.: AF50180

## Laboratory Data

Client ID: 714 BROADWAY UST INVEST GP-1W

Parameter	Result	RL	Units	Date	Time	By	Reference
<b><u>Volatile Organic Compounds</u></b>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,1-Trichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,2-Trichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloropropene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,3-Trichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dibromoethane(EDB)	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,4-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
2,2-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
2-Chlorotoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
4-Chlorotoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260

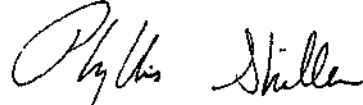
Parameter	Result	RL	Units	Date	Time	By	Reference
Benzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromochloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromodichloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromoform	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromomethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Carbon tetrachloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloroform	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dibromochloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dibromomethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dichlorodifluoromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Ethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Hexachlorobutadiene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Isopropylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	04/16/04		RM	8021/8260
Methylene chloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
n-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
n-Propylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Naphthalene	ND	1.0	ug/L	04/16/04		RM	8021/8260
o-Xylene	ND	1.0	ug/L	04/16/04		RM	8021/8260
p&m-Xylene	ND	1.0	ug/L	04/16/04		RM	8021/8260
p-Isopropyltoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
sec-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Styrene	ND	1.0	ug/L	04/16/04		RM	8021/8260
tert-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Tetrachloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Toluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Trichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Trichlorofluoromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Vinyl chloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
<b>QA/QC Surrogates</b>							
%4-Bromofluorobenzene (Surrogate)	87		%	04/16/04		RM	8021/8260

---

**Comments:**

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

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



Phyllis Shiller, Laboratory Director

April 23, 2004



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 23, 2004

FOR: Attn: Ms. Liz Rovers  
 CT Male Associates, PC  
 50 Century Hill Drive  
 Latham, NY 12110

### Sample Information

Matrix: WATER  
 Location Code: CT-MALE  
 Rush Request:  
 P.O.#: 049133

### Custody Information

Collected by: SB  
 Received by: KJB  
 Analyzed by: see "By" below

### Date

04/14/04  
 04/16/04

### Time

11:15  
 9:15

SDG I.D.: GAF50176

Phoenix I.D.: AF50181

## Laboratory Data

Client ID: 714 BROADWAY UST INVEST GP-2W

Parameter	Result	RL	Units	Date	Time	By	Reference
<b><u>Volatile Organic Compounds</u></b>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,1,1-Trichloroethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,1,2-Trichloroethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,1-Dichloroethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,1-Dichloroethene	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,1-Dichloropropene	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,2,3-Trichloropropane	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,2-Dibromoethane(EDB)	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,2-Dichlorobenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,2-Dichloroethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,2-Dichloropropane	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,3-Dichlorobenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,3-Dichloropropane	ND	1.0	ug/L	04/21/04		RM	8021/8260
1,4-Dichlorobenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
2,2-Dichloropropane	ND	1.0	ug/L	04/21/04		RM	8021/8260
2-Chlorotoluene	ND	1.0	ug/L	04/21/04		RM	8021/8260
4-Chlorotoluene	ND	1.0	ug/L	04/21/04		RM	8021/8260

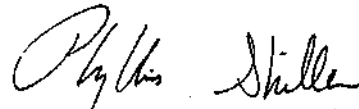
Parameter	Result	RL	Units	Date	Time	By	Reference
Benzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Bromobenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Bromochloromethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
Bromodichloromethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
Bromoform	ND	1.0	ug/L	04/21/04		RM	8021/8260
Bromomethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
Carbon tetrachloride	ND	1.0	ug/L	04/21/04		RM	8021/8260
Chlorobenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Chloroethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
Chloroform	ND	1.0	ug/L	04/21/04		RM	8021/8260
Chloromethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Dibromochloromethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
Dibromomethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
Dichlorodifluoromethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
Ethylbenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Hexachlorobutadiene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Isopropylbenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	04/21/04		RM	8021/8260
Methylene chloride	ND	1.0	ug/L	04/21/04		RM	8021/8260
n-Butylbenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
n-Propylbenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Naphthalene	ND	1.0	ug/L	04/21/04		RM	8021/8260
o-Xylene	ND	1.0	ug/L	04/21/04		RM	8021/8260
p&m-Xylene	ND	1.0	ug/L	04/21/04		RM	8021/8260
p-Isopropyltoluene	ND	1.0	ug/L	04/21/04		RM	8021/8260
sec-Butylbenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Styrene	ND	1.0	ug/L	04/21/04		RM	8021/8260
tert-Butylbenzene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Tetrachloroethene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Toluene	ND	1.0	ug/L	04/21/04		RM	8021/8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Trichloroethene	ND	1.0	ug/L	04/21/04		RM	8021/8260
Trichlorofluoromethane	ND	1.0	ug/L	04/21/04		RM	8021/8260
Vinyl chloride	ND	1.0	ug/L	04/21/04		RM	8021/8260
<b>QA/QC Surrogates</b>							
%4-Bromofluorobenzene (Surrogate)	108		%	04/21/04		RM	8021/8260

---

**Comments:**

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

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



Phyllis Shiller, Laboratory Director

April 23, 2004



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 April 23, 2004

FOR: Attn: Ms. Liz Rovers  
 CT Male Associates, PC  
 50 Century Hill Drive  
 Latham, NY 12110

Sample Information

Matrix: WATER  
 Location Code: CT-MALE  
 Rush Request:  
 P.O.#: 049133

Custody Information

Collected by: SB  
 Received by: KJB  
 Analyzed by: see "By" below

Date      Time

04/14/04      13:10  
 04/16/04      9:15

SDG I.D.: GAF50176

Phoenix I.D.: AF50182

Laboratory Data

Client ID: 714 BROADWAY UST INVEST GP-3W

Parameter	Result	RL	Units	Date	Time	By	Reference
<u>Volatile Organic Compounds</u>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,1-Trichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,2-Trichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloropropene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,3-Trichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dibromoethane(EDB)	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,4-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
2,2-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
2-Chlorotoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
4-Chlorotoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260

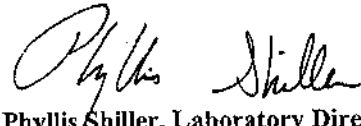
Parameter	Result	RL	Units	Date	Time	By	Reference
Benzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromochloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromodichloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromoform	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromomethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Carbon tetrachloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloroform	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dibromochloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dibromomethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dichlorodifluoromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Ethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Hexachlorobutadiene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Isopropylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	04/16/04		RM	8021/8260
Methylene chloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
n-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
n-Propylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Naphthalene	ND	1.0	ug/L	04/16/04		RM	8021/8260
o-Xylene	ND	1.0	ug/L	04/16/04		RM	8021/8260
p&m-Xylene	ND	1.0	ug/L	04/16/04		RM	8021/8260
p-Isopropyltoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
sec-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Styrene	ND	1.0	ug/L	04/16/04		RM	8021/8260
tert-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Tetrachloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Toluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Trichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Trichlorofluoromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Vinyl chloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
<b>QA/QC Surrogates</b>							
%4-Bromofluorobenzene (Surrogate)	116		%	04/16/04		RM	8021/8260

---

**Comments:**

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

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



Phyllis Shiller, Laboratory Director

April 23, 2004



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 23, 2004

FOR: Attn: Ms. Liz Rovers  
CT Male Associates, PC  
50 Century Hill Drive  
Latham, NY 12110

## Sample Information

Matrix: WATER  
Location Code: CT-MALE  
Rush Request:  
P.O.#: 049133

## Custody Information

Collected by: SB  
Received by: KJB  
Analyzed by: see "By" below

## Date      Time

04/14/04      14:45  
04/16/04      9:15

## Laboratory Data

SDG I.D.: GAF50176  
Phoenix I.D.: AF50183

Client ID: 714 BROADWAY UST INVEST GP-4W

Parameter	Result	RL	Units	Date	Time	By	Reference
<b><u>Volatile Organic Compounds</u></b>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,1-Trichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,2-Trichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloropropene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,3-Trichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dibromoethane(EDB)	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,4-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
2,2-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
2-Chlorotoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
4-Chlorotoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260

Parameter	Result	RL	Units	Date	Time	By	Reference
Benzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromochloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromodichloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromoform	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromomethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Carbon tetrachloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloroform	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dibromochloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dibromomethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dichlorodifluoromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Ethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Hexachlorobutadiene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Isopropylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	04/16/04		RM	8021/8260
Methylene chloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
n-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
n-Propylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Naphthalene	ND	1.0	ug/L	04/16/04		RM	8021/8260
o-Xylene	ND	1.0	ug/L	04/16/04		RM	8021/8260
p&m-Xylene	ND	1.0	ug/L	04/16/04		RM	8021/8260
p-Isopropyltoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
sec-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Styrene	ND	1.0	ug/L	04/16/04		RM	8021/8260
tert-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Tetrachloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Toluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Trichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Trichlorofluoromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Vinyl chloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
<b>QA/QC Surrogates</b>							
%4-Bromofluorobenzene (Surrogate)	94		%	04/16/04		RM	8021/8260

---

**Comments:**

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

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



Phyllis Shiller, Laboratory Director

April 23, 2004



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 23, 2004

FOR: Attn: Ms. Liz Rovers  
 CT Male Associates, PC  
 50 Century Hill Drive  
 Latham, NY 12110

### Sample Information

Matrix: WATER  
 Location Code: CT-MALE  
 Rush Request:  
 P.O.#: 049133

### Custody Information

Collected by: SB  
 Received by: KJB  
 Analyzed by: see "By" below

### Date

04/14/04 16:30  
 04/16/04 9:15

### Time

SDG I.D.: GAF50176

Phoenix I.D.: AF50184

## Laboratory Data

Client ID: 714 BROADWAY UST INVEST GP-6W

Parameter	Result	RL	Units	Date	Time	By	Reference
<b>Volatile Organic Compounds</b>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,1-Trichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,2-Trichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloropropene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,3-Trichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dibromoethane(EDB)	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,4-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
2,2-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
2-Chlorotoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
4-Chlorotoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260

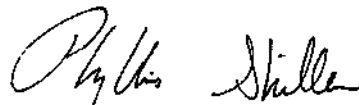
Parameter	Result	RL	Units	Date	Time	By	Reference
Benzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromochloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromodichloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromoform	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromomethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Carbon tetrachloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloroform	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dibromochloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dibromomethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dichlorodifluoromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Ethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Hexachlorobutadiene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Isopropylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	04/16/04		RM	8021/8260
Methylene chloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
n-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
n-Propylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Naphthalene	ND	1.0	ug/L	04/16/04		RM	8021/8260
o-Xylene	ND	1.0	ug/L	04/16/04		RM	8021/8260
p&m-Xylene	ND	1.0	ug/L	04/16/04		RM	8021/8260
p-Isopropyltoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
sec-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Styrene	ND	1.0	ug/L	04/16/04		RM	8021/8260
tert-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Tetrachloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Toluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Trichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Trichlorofluoromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Vinyl chloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
<b>QA/QC Surrogates</b>							
%4-Bromofluorobenzene (Surrogate)	87		%	04/16/04		RM	8021/8260

---

**Comments:**

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

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



Phyllis Shiller, Laboratory Director

April 23, 2004



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 April 23, 2004

FOR: Attn: Ms. Liz Rovers  
 CT Male Associates, PC  
 50 Century Hill Drive  
 Latham, NY 12110

Sample Information

Matrix: WATER  
 Location Code: CT-MALE  
 Rush Request:  
 P.O.#: 049133

Custody Information

Collected by: SB  
 Received by: KJB  
 Analyzed by: see "By" below

Date

04/14/04  
 04/16/04

Time

0:00  
 9:15

SDG I.D.: GAF50176

Phoenix I.D.: AF50185

Laboratory Data

Client ID: 714 BROADWAY UST INVEST TRIP BLANK

Parameter	Result	RL	Units	Date	Time	By	Reference
<b><u>Volatile Organic Compounds</u></b>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,1-Trichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1,2-Trichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,1-Dichloropropene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,3-Trichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dibromoethane(EDB)	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,2-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,3-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
1,4-Dichlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
2,2-Dichloropropane	ND	1.0	ug/L	04/16/04		RM	8021/8260
2-Chlorotoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
4-Chlorotoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260

Parameter	Result	RL	Units	Date	Time	By	Reference
Benzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromochloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromodichloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromoform	ND	1.0	ug/L	04/16/04		RM	8021/8260
Bromomethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Carbon tetrachloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chlorobenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloroethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloroform	ND	1.0	ug/L	04/16/04		RM	8021/8260
Chloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dibromochloromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dibromomethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Dichlorodifluoromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Ethylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Hexachlorobutadiene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Isopropylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	04/16/04		RM	8021/8260
Methylene chloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
n-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
n-Propylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Naphthalene	ND	1.0	ug/L	04/16/04		RM	8021/8260
o-Xylene	ND	1.0	ug/L	04/16/04		RM	8021/8260
p&m-Xylene	ND	1.0	ug/L	04/16/04		RM	8021/8260
p-Isopropyltoluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
sec-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Styrene	ND	1.0	ug/L	04/16/04		RM	8021/8260
tert-Butylbenzene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Tetrachloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Toluene	ND	1.0	ug/L	04/16/04		RM	8021/8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Trichloroethene	ND	1.0	ug/L	04/16/04		RM	8021/8260
Trichlorofluoromethane	ND	1.0	ug/L	04/16/04		RM	8021/8260
Vinyl chloride	ND	1.0	ug/L	04/16/04		RM	8021/8260
<b>QA/QC Surrogates</b>							
%4-Bromofluorobenzene (Surrogate)	102		%	04/16/04		RM	8021/8260

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**Comments:**

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

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



Phyllis Shiller, Laboratory Director

April 23, 2004



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

April 23, 2004

## QA/QC Data

SDG ID.: GAF50176

Parameter	QA/QC Data		MS Dup		RPD
	Blank	LCS %	MS Rec %	Rec %	
QA/QC Batch Sample No: AF50190 (AF50180, AF50181, AF50182, AF50183, AF50184)					
<b>Volatiles Organics</b>					
1,1,1,2-Tetrachloroethane	ND	108			
1,1,1-Trichloroethane	ND	73			
1,1,2,2-Tetrachloroethane	ND				
1,1,2-Trichloroethane	ND	117			
1,1-Dichloroethane	ND				
1,1-Dichloroethene	ND		88	90	2.2
1,1-Dichloropropene	ND				
1,2,3-Trichlorobenzene	ND	85			
1,2,3-Trichloropropane	ND	124			
2,3-Trimethylbenzene	ND				
1,2,4-Trichlorobenzene	ND	97			
1,2,4-Trimethylbenzene	ND	104			
1,2-Dibromo-3-chloropropane	ND				
1,2-Dichlorobenzene	ND	111			
1,2-Dichloroethane	ND				
1,2-Dichloropropane	ND	101			
1,3,5-Trimethylbenzene	ND	103			
1,3-Dichlorobenzene	ND	110			
1,3-Dichloropropane	ND	105			
1,4-Dichlorobenzene	ND	110			
2,2-Dichloropropane	ND				
2-Chlorotoluene	ND	106			
4-Chlorotoluene	ND	105			
Benzene	ND	142	103	77	28.9
Bromobenzene	ND	113			
Bromochloromethane	ND	91			
Bromodichloromethane	ND	107			
Bromoform	ND				
Bromomethane	ND	92			
Carbon Tetrachloride	ND	117			
Chlorobenzene	ND	109	91	93	2.2
Chloroethane	ND				

**QA/QC Data**

SDG LD.: GAF50176

Parameter	Blank	LCS %	MS Rec %	MS Dup Rec %	RPD
Chloroform	ND	76			
Chloromethane	ND				
cis-1,2-Dichloroethene	ND	83			
cis-1,3-Dichloropropene	ND	99			
Dibromochloromethane	ND	112			
Dibromoethane	ND	106			
Dibromomethane	ND	118			
Dichlorodifluoromethane	ND	79			
Ethylbenzene	ND	102			
Hexachlorobutadiene	ND	114			
Isopropylbenzene	ND	105			
m&p-Xylene	ND	106			
Methyl t Butyl Ether (MTBE)	ND				
Methylene Chloride	ND				
n-Butylbenzene	ND	102			
n-Propylbenzene	ND	101			
Naphthalene	ND	78			
o-Xylene	ND	101			
o-Isopropyltoluene	ND	110			
sec-Butylbenzene	ND	103			
Styrene	ND	102			
tert-Butylbenzene	ND	105			
Tetrachloroethene	ND	99			
Toluene	ND	107	96	86	11.0
Total Trihalomethanes (TTHM)	ND				
trans-1,2-Dichloroethene	ND				
trans-1,3-Dichloropropene	ND	94			
Trichloroethene	ND	97	83	103	21.5
Trichlorofluoromethane	ND				
Vinyl Chloride	ND				
% Bromofluorobenzene	86	96	85	85	0.0

**Comment:** LFB was analyzed with this batch instead of MS/MSD

QA/QC Batch Sample No: AF50270 (AF50185)

**Volatiles Organics**

1,1,1,2-Tetrachloroethane	ND	99			
1,1,1-Trichloroethane	ND	117			
1,1,2,2-Tetrachloroethane	ND	107			
1,1,2-Trichloroethane	ND	90			
1,1-Dichloroethane	ND	104			
1,1-Dichloroethene	ND	95	90	91	1.1
1,1-Dichloropropene	ND	97			

**QA/QC Data**

SDG I.D.: GAF50176

<b>Parameter</b>	<b>Blank</b>	<b>LCS %</b>	<b>MS Rec %</b>	<b>MS Dup Rec %</b>	<b>RPD</b>
1,2,3-Trichlorobenzene	ND	95			
1,2,3-Trichloropropane	ND	99			
1,2,3-Trimethylbenzene	ND				
1,2,4-Trichlorobenzene	ND	96			
1,2,4-Trimethylbenzene	ND	95			
1,2-Dibromo-3-chloropropane	ND	100			
1,2-Dichlorobenzene	ND	102			
1,2-Dichloroethane	ND	106			
1,2-Dichloropropane	ND	96			
1,3,5-Trimethylbenzene	ND	97			
1,3-Dichlorobenzene	ND	102			
1,3-Dichloropropane	ND	96			
1,4-Dichlorobenzene	ND	102			
2,2-Dichloropropane	ND	146			
2-Chlorotoluene	ND	97			
4-Chlorotoluene	ND	100			
Benzene	ND	98	92	95	3.2
Bromobenzene	ND	94			
Bromochloromethane	ND	109			
Bromodichloromethane	ND	115			
Bromoform	ND	103			
Bromomethane	ND				
Carbon Tetrachloride	ND	126			
Chlorobenzene	ND	92	90	91	1.1
Chloroethane	ND	81			
Chloroform	ND	117			
Chloromethane	ND	89			
cis-1,2-Dichloroethene	ND	93			
cis-1,3-Dichloropropene	ND	96			
Dibromochloromethane	ND	110			
Dibromoethane	ND	94			
Dibromomethane	ND	100			
Dichlorodifluoromethane	ND	127			
Ethylbenzene	ND	91			
Hexachlorobutadiene	ND	106			
Isopropylbenzene	ND	106			
m&p-Xylene	ND	90			
Methyl t Butyl Ether (MTBE)	ND				
Methylene Chloride	ND	87			
n-Butylbenzene	ND	107			
n-Propylbenzene	ND	96			
Naphthalene	ND	97			

# QA/QC Data

SDG I.D.: GAF50176

Parameter	Blank	LCS %	MS Rec %	MS Dup Rec %	RPD
o-Xylene	ND	92			
p-Isopropyltoluene	ND	108			
sec-Butylbenzene	ND	93			
Styrene	ND	90			
tert-Butylbenzene	ND	101			
Tetrachloroethene	ND	101			
Toluene	ND	92	86	87	1.2
Total Trihalomethanes (TTHM)	ND				
trans-1,2-Dichloroethene	ND	92			
trans-1,3-Dichloropropene	ND	96			
Trichloroethene	ND	99	88	88	0.0
Trichlorofluoromethane	ND	117			
Vinyl Chloride	ND	103			
% Bromofluorobenzene	101	95	87	86	1.2

**Comment:** LFB was analyzed with tis batch instead of MS/MSD

QA/QC Batch Sample No: AF50362 (AF50179)

## Volatiles

1,1,1,2-Tetrachloroethane	ND	102			
1,1-Trichloroethane	ND	85			
1,1,2,2-Tetrachloroethane	ND	110			
1,1,2-Trichloroethane	ND	121			
1,1-Dichloroethane	ND	70			
1,1-Dichloroethene	ND	76	94	112	17.5
1,1-Dichloropropene	ND	98			
1,2,3-Trichlorobenzene	ND	108			
1,2,3-Trichloropropane	ND	99			
1,2,4-Trichlorobenzene	ND	106			
1,2,4-Trimethylbenzene	ND	95			
1,2-Dibromo-3-chloropropane	ND	112			
1,2-Dichlorobenzene	ND	102			
1,2-Dichloroethane	ND	86			
1,2-Dichloropropane	ND	87			
1,3,5-Trimethylbenzene	ND	98			
1,3-Dichlorobenzene	ND	103			
1,3-Dichloropropane	ND	107			
1,4-Dichlorobenzene	ND	101			
2,2-Dichloropropane	ND	84			
2-Chlorotoluene	ND	101			
4-Chlorotoluene	ND	103			
Benzene	ND	86	94	103	9.1
Bromobenzene	ND	111			

**QA/QC Data**

SDG I.D.: GAF50176

Parameter	Blank	LCS %	MS Rec %	MS Dup Rec %	RPD
Bromochloromethane	ND	97			
Bromodichloromethane	ND	89			
Bromoform	ND	108			
Bromomethane	ND				
Carbon tetrachloride	ND	87			
Chlorobenzene	ND	100	100	114	13.1
Chloroethane	ND	35			
Chloroform	ND	84			
Chloromethane	ND				
cis-1,2-Dichloroethene	ND	93			
cis-1,3-Dichloropropene	ND	91			
Dibromochloromethane	ND	111			
Dibromoethane	ND	120			
Dibromomethane	ND	101			
Dichlorodifluoromethane	ND				
Ethylbenzene	ND	99			
Hexachlorobutadiene	ND	101			
Isopropylbenzene	ND	113			
m-&p-Xylene	ND	96			
Methyl Ethyl Ketone	ND				
Methyl tert-butyl ether (MTBE)	ND				
Methylene chloride	ND	71			
n-Butylbenzene	ND	92			
n-Propylbenzene	ND	102			
Naphthalene	ND	118			
o-Xylene	ND	92			
p-Isopropyltoluene	ND	100			
sec-Butylbenzene	ND	92			
Styrene	ND	92			
tert-Butylbenzene	ND	97			
Tetrachloroethene	ND	106			
Toluene	ND	87	94	107	12.9
trans-1,2-Dichloroethene	ND	81			
trans-1,3-Dichloropropene	ND	107			
Trichloroethene	ND	98	100	117	15.7
Trichlorofluoromethane	ND				
Vinyl chloride	ND	60			
% Bromofluorobenzene	89	85	86	86	0.0

QA/QC Batch Sample No: AF50385 (AF50179)

**Volatiles**

1,1,1,2-Tetrachloroethane ND 104

**QA/QC Data**

SDG I.D.: GAF50176

Parameter	Blank	LCS %	MS Rec %	MS Dup Rec %	RPD
1,1,1-Trichloroethane	ND	92			
1,1,2,2-Tetrachloroethane	ND	88			
1,1,2-Trichloroethane	ND	107			
1,1-Dichloroethane	ND	73			
1,1-Dichloroethene	ND	87	87	84	3.5
1,1-Dichloropropene	ND	113			
1,2,3-Trichlorobenzene	ND	100			
1,2,3-Trichloropropane	ND	77			
1,2,4-Trichlorobenzene	ND	105			
1,2,4-Trimethylbenzene	ND	105			
1,2-Dibromo-3-chloropropane	ND	84			
1,2-Dichlorobenzene	ND	102			
1,2-Dichloroethane	ND	79			
1,2-Dichloropropane	ND	90			
1,3,5-Trimethylbenzene	ND	109			
1,3-Dichlorobenzene	ND	110			
1,3-Dichloropropane	ND	95			
1,4-Dichlorobenzene	ND	107			
2,2-Dichloropropane	ND	85			
Chlorotoluene	ND	110			
4-Chlorotoluene	ND	111			
Benzene	ND	95	82	80	2.5
Bromobenzene	ND	112			
Bromochloromethane	ND	88			
Bromodichloromethane	ND	88			
Bromoform	ND	91			
Bromomethane	ND				
Carbon tetrachloride	ND	101			
Chlorobenzene	ND	107	62	70	12.1
Chloroethane	ND				
Chloroform	ND	83			
Chloromethane	ND				
cis-1,2-Dichloroethene	ND	95			
cis-1,3-Dichloropropene	ND	88			
Dibromochloromethane	ND	100			
Dibromoethane	ND	103			
Dibromomethane	ND	90			
Dichlorodifluoromethane	ND				
Ethylbenzene	ND	113			
Hexachlorobutadiene	ND	117			
Isopropylbenzene	ND	128			
m&p-Xylene	ND	108			

**QA/QC Data**

SDG I.D.: GAF50176

Parameter	Blank	LCS %	MS Rec %	MS Dup Rec %	RPD
Methyl Ethyl Ketone	ND				
Methyl t-butyl ether (MTBE)	ND				
Methylene chloride	ND	73			
n-Butylbenzene	ND	107			
n-Propylbenzene	ND	117			
Naphthalene	ND	90			
o-Xylene	ND	100			
p-Isopropyltoluene	ND	115			
sec-Butylbenzene	ND	107			
Styrene	ND	98			
tert-Butylbenzene	ND	113			
Tetrachloroethene	ND	125			
Toluene	ND	98	70	70	0.0
Total Xylenes	ND				
trans-1,2-Dichloroethene	ND	89			
trans-1,3-Dichloropropene	ND	95			
Trichloroethene	ND	109	86	84	2.4
Trichlorofluoromethane	ND	72			
Vinyl chloride	ND				
Bromofluorobenzene	83	84	82	77	6.3

QA/QC Batch Sample No: AF50882 (AF50181)

**Volatiles Organics**

1,1,1,2-Tetrachloroethane	ND	104			
1,1,1-Trichloroethane	ND	108			
1,1,2,2-Tetrachloroethane	ND	122			
1,1,2-Trichloroethane	ND				
1,1-Dichloroethane	ND	94			
1,1-Dichloroethene	ND	103	70	83	17.0
1,1-Dichloropropene	ND	100			
1,2,3-Trichlorobenzene	ND	86			
1,2,3-Trichloropropane	ND	124			
1,2,3-Trimethylbenzene	ND				
1,2,4-Trichlorobenzene	ND	96			
1,2,4-Trimethylbenzene	ND	105			
1,2-Dibromo-3-chloropropane	ND				
1,2-Dichlorobenzene	ND	104			
1,2-Dichloroethane	ND	110			
1,2-Dichloropropane	ND	110			
1,3,5-Trimethylbenzene	ND	105			
1,3-Dichlorobenzene	ND	101			
1,3-Dichloropropane	ND	111			

**QA/QC Data**

SDG I.D.: GAF50176

Parameter	Blank	LCS %	MS Rec %	MS Dup Rec %	RPD
1,4-Dichlorobenzene	ND	102			
2,2-Dichloropropane	ND	95			
2-Chlorotoluene	ND	106			
4-Chlorotoluene	ND	105			
Benzene	ND	108	84	89	5.8
Bromobenzene	ND	109			
Bromochloromethane	ND	122			
Bromodichloromethane	ND	119			
Bromoform	ND				
Bromomethane	ND				
Carbon Tetrachloride	ND	109			
Chlorobenzene	ND	102	77	78	1.3
Chloroethane	ND	110			
Chloroform	ND	110			
Chloromethane	ND	64			
cis-1,2-Dichloroethene	ND	115			
cis-1,3-Dichloropropene	ND	126			
Dibromochloromethane	ND	117			
Dibromoethane	ND				
bromomethane	ND	127			
Dichlorodifluoromethane	ND	121			
Ethylbenzene	ND	100			
Hexachlorobutadiene	ND	96			
Isopropylbenzene	ND	110			
m&p-Xylene	ND	105			
Methyl t Butyl Ether (MTBE)	ND				
Methylene Chloride	ND	110			
n-Butylbenzene	ND	99			
n-Propylbenzene	ND	98			
Naphthalene	ND	88			
o-Xylene	ND	100			
p-Isopropyltoluene	ND	106			
sec-Butylbenzene	ND	98			
Styrene	ND	106			
tert-Butylbenzene	ND	106			
Tetrachloroethene	ND	91			
Toluene	ND	118	129	108	17.7
Total Trihalomethanes (TTHM)	ND				
trans-1,2-Dichloroethene	ND	100			
trans-1,3-Dichloropropene	ND	123			
Trichloroethene	ND	101	76	74	2.7
Trichlorofluoromethane	ND	108			

# QA/QC Data

SDG ID.: GAF50176

Parameter	Blank	LCS %	MS Rec %	MS Dup Rec %	RPD
Vinyl Chloride	ND	83			
% Bromofluorobenzene	88	93	78	87	10.9
Comment: LFB was analyzed with tis batch instead of MS/MSD					
QA/QC Batch Sample No: AF50891 (AF50181)					
<b>Volatiles Organics</b>					
1,1,1,2-Tetrachloroethane	ND	111			
1,1,1-Trichloroethane	ND				
1,1,2,2-Tetrachloroethane	ND	96			
1,1,2-Trichloroethane	ND	90			
1,1-Dichloroethane	ND	108			
1,1-Dichloroethene	ND	87	87	84	3.5
1,1-Dichloropropene	ND	95			
1,2,3-Trichlorobenzene	ND	91			
1,2,3-Trichloropropane	ND	101			
1,2,3-Trimethylbenzene	ND				
1,2,4-Trichlorobenzene	ND	91			
1,2,4-Trimethylbenzene	ND	94			
1,2-Dibromo-3-chloropropane	ND	97			
1,2-Dichlorobenzene	ND	98			
1,2-Dichloroethane	ND				
1,2-Dichloropropane	ND	94			
1,3,5-Trimethylbenzene	ND	98			
1,3-Dichlorobenzene	ND	94			
1,3-Dichloropropane	ND	104			
1,4-Dichlorobenzene	ND	93			
2,2-Dichloropropane	ND				
2-Chlorotoluene	ND	89			
4-Chlorotoluene	ND	91			
Benzene	ND	94	100	97	3.0
Bromobenzene	ND	86			
Bromochloromethane	ND	106			
Bromodichloromethane	ND	131			
Bromoform	ND	114			
Bromomethane	ND				
Carbon Tetrachloride	ND	176			
Chlorobenzene	ND	89	90	91	1.1
Chloroethane	ND	104			
Chloroform	ND	129			
Chloromethane	ND	100			
trans-1,2-Dichloroethene	ND	85			
cis-1,3-Dichloropropane	ND	112			

**QA/QC Data**

SDG I.D.: GAF50176

Parameter	Blank	LCS %	MS Rec %	MS Dup Rec %	RPD
Dibromochloromethane	ND	118			
Dibromoethane	ND	97			
Dibromomethane	ND	108			
Dichlorodifluoromethane	ND				
Ethylbenzene	ND	85			
Hexachlorobutadiene	ND	116			
Isopropylbenzene	ND	96			
m&p-Xylene	ND	90			
Methyl t Butyl Ether (MTBE)	ND				
Methylene Chloride	ND	88			
n-Butylbenzene	ND	103			
n-Propylbenzene	ND	93			
Naphthalene	ND	86			
o-Xylene	ND	89			
p-Isopropyltoluene	ND	107			
sec-Butylbenzene	ND	90			
Styrene	ND	84			
tert-Butylbenzene	ND	100			
Tetrachloroethene	ND	103			
Toluene	ND	85	85	80	6.1
Total Trihalomethanes (TTHM)	ND				
trans-1,2-Dichloroethene	ND	86			
trans-1,3-Dichloropropene	ND	116			
Trichloroethene	ND	95	93	92	1.1
Trichlorofluoromethane	ND				
Vinyl Chloride	ND	120			
% Bromofluorobenzene	107	112	107	107	0.0

Comment: LFB was analyzed with this batch instead of MS/MSD

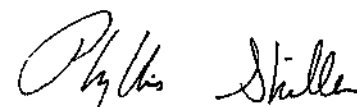
If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

  
 Phyllis Shiller, Laboratory Director  
 April 23, 2004



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O. Box 379, Manchester, CT 06040  
 Tel. (860) 645-1102 Fax (860) 645-0823

**CHAIN OF CUSTODY RECORD**

DATE RCVD:

**Client Services (860) 645-8726**

Customer: CT Hale Associates, PC  
 Address: 50 Century Hill Drive  
Waterbury, NY 13160

Project: 114 Broadway West Investigations  
 Report To: Liz Zellers  
 Invoice To: Liz Zellers

Project P.O.: 09 H. 7133  
 Phone #: (518) 786-7400  
 Fax #: (518) 786-7399

**Client Sample - Information - Identification**

Item #	Customers Sample Ident	Sample Matrix	Date	Time
X	GP-2 S	Soil	4/14/04	10:25 A
	GP-3 S	Soil		11:20 P
	GP-4 S	Soil		2:16 P
	GP-6 S	Soil		3:50 P
	GP-1 W	Water		9:30 A
	GP-2 W	Water		11:15 A
	GP-3 W	Water		11:10 P
	GP-4 W	Water		2:45 P
	GP-6 W	Water		4:30 P
	Trip Blank	Water		

**Analysis Requested**

302 Granular (No Pres)	PHOENIX SAMPLE #
1	50176
1	50177
1	50178
1	50179
3	50180
3	50181
3	50182
3	50183
3	50184
3	50185

Item #	Relinquished by:	Accepted by:	Date:	Time:	Comments:
	<i>[Signature]</i>	<i>[Signature]</i>	4/14/04		
	<i>[Signature]</i>	<i>[Signature]</i>	4/14/04		
	<i>[Signature]</i>	<i>[Signature]</i>	4/14/04		

Standard lab turnaround is 10 working days. Accelerated turnarounds are always available. Check with office on prevailing surcharge. **ACCELERATED TURN-AROUND TIME REQUESTED:** 1 2 3 4 5 working days.