FINAL SITE CHARACTERIZATION REPORT
REGION 8 DRY CLEANING SITES
CRYSTAL CLEANERS SITE
SITE NO. 8-51-022

WORK ASSIGNMENT NO. D004434-19

Prepared for:

New York State Department of Environmental Conservation
Albany, New York

Prepared by:

MACTEC Engineering and Consulting, PC
Portland, Maine

MACTEC NO. 3612072075

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ASP	Analytical Services Protocol
ASTM	American Society for Testing and Materials
bgs	below ground surface
Chemtech	Chemtech Consulting Group, Inc.
cis-1,2-DCE	cis-1,2-Dichloroethene
EDR	Environmental Data Resources, Inc.
^{o}F	degrees Fahrenheit
MACTEC	MACTEC Engineering and Consulting, P.C.
msl	mean sea level
NYCRR	New York Codes, Rules, and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCE	tetrachloroethene
PID	photoionization detector
ppm	parts per million
PVC	polyvinyl chloride
Report	Site Characterization Report
ROW	right of way
SC	Site Characterization
Site	Crystal Cleaners Site
SVOC	Semi-Volatile Organic Compounds
1,1,1-TCA	1,1,1-trichloroethane
1,1,2-TCA	1,1,2-trichloroethane
TCE	trichloroethene
TCL	Target Compound List
TICS	tentatively identified compounds
trans-1,2-DCE	trans-1,2-Dichloroethene
µg/Kg	micrograms per Kilogram
µg/L	micrograms per Liter
µg/m^3	micrograms per cubic meter
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound
WA	Work Assignment

1.0 INTRODUCTION

MACTEC Engineering and Consulting, P.C. (MACTEC), is submitting this Site Characterization Report (Report) to the New York State Department of Environmental Conservation (NYSDEC). This Report addresses the Site Characterization (SC) at the Crystal Cleaners site (Site) in Corning, New York (Figure 1.1). This Report was prepared in response to Work Assignment (WA) No. D004434-19 (NYSDEC, 2005), and in accordance with the requirements of the July 1997 Superfund Standby Contract No. D004434 between the NYSDEC and MACTEC.

This Report is one of five site-specific Reports for the Region 8 Dry Cleaning Sites multiple site Site Characterizations WA. The other four Reports address the sites listed below:

- Loohns Corning (Site No. 8-51-028 - replaces Former Your Way Cleaners)
- Former American Dry Cleaners (Site No. 8-08-036)
- Castle Cleaners (Site No. 8-08-034)
- Former Helwigs Dry Cleaners (Site No. 8-51-023)

The Crystal Cleaners site, Site No. 8-51-022, is currently listed as a potential hazardous waste site, or "P" site, by the NYSDEC, because insufficient information exists to determine whether wastes were disposed of at the site and whether, if present, those wastes pose a potential significant threat to public health or the environment (New York State (NYS), 2006).

The purpose of the SC is to provide information to be used by the NYSDEC to reclassify the site to one of the following categories:

Class 1	Hazardous waste constitutes a significant threat to public health or the environment, as described in Title 6 of the New York Codes, Rules, and Regulations (NYCRR) Part 375 (NYS, 2006); and the significant threat to public health or the environment is causing, or presents an imminent danger of causing, either irreversible or irreparable damage to the environment.
Class 2	Hazardous waste constitutes a significant threat to public health or the environment as defined in 6 NYCRR 375 (NYS, 2006)
Class 3	Hazardous waste does not presently constitute a significant threat to public health or the environment as defined in 6 NYCRR 375 (NYS, 2006).
Not Listed	Sites where hazardous waste disposal is not documented.

To complete its reclassification, the NYSDEC requires information to establish the following:

- The existence of documented hazardous waste disposal, as defined in Title 6 of the NYCRR Part 371 (NYS, 1999a).

- The site's significance with respect to the threat it poses to public health and the environment as defined in 6 NYCRR Part 375 (NYS, 2006).
- Identification of contaminant source.

To implement the SC, this WA was authorized and was divided into the following three tasks:

Task 1: Work Plan Development,

Task 2: Subsurface Investigations, and

Task 3: Reporting.

This Report presents reclassification documentation collected by MACTEC during Task 1 and Task 2 so the NYSDEC can recommend follow up action for the site (i.e., reclassify, delist, or perform additional investigations). Resources used to prepare this Report include: (1) information provided in the Work Assignment, (2) appropriate guidelines in the NYSDEC Draft DER-10 Guidance (NYSDEC, 2002), (3) results of previous investigations, if applicable, and (4) results of the SC investigation.

This Report is divided into five sections. Section 1 is the introduction. Section 2 presents information collected during Task 1, which included a search of state and county site records, and a site inspection. Because Task 1 activities did not develop adequate data on which to base a delist or reclassification recommendation Task 2, Subsurface Investigation, was conducted. Section 3 of this Report presents the work conducted during Task 2: Subsurface Investigations. Section 4 presents results of the field investigation. Section 5 presents an investigation summary.

2.0 SITE BACKGROUND AND PHYSICAL SETTING

On September 9 and 10, 2005, MACTEC personnel reviewed available records from the NYSDEC office in Albany, New York, and visited the City of Corning, New York town offices. Information was also collected from the Site owner by the NYSDEC. As part of the review, MACTEC ordered a copy of an Environmental Data Resources, Inc. (EDR) report which provides a listing of federal and state governmental information pertaining to potential and documented environmental impacts, both at the Site and within the American Society for Testing and Materials (ASTM) recommended search radii. Complete lists of all recommended ASTM record searches for standard due diligence requirements are included in the EDR report provided under separate cover. The information was reviewed to support a Site classification, and to help prepare the scope of work for the SC field investigations. The information collected from these sources is summarized below.

2.1 SITE LOCATION

Crystal Cleaners is located at 343 West Pulteney Street, in the City of Corning, Steuben County, New York (Figure 1.1). The Crystal Cleaners property consists of approximately 0.58 acres including a retail building and a large parking lot and service station. The current Site building was constructed in 1970 and includes a mini-mart and service station, a dry cleaning business, and a vacant store. It is a one story building with a basement located only under the dry cleaner.

Residential property is located north, south and east of the Site and commercial property is located west of the Site.

2.2 SITE HISTORY

The property lot was purchased from Corning, Inc. in December 1969. The current Site building was constructed in 1970. It is a one story building with a basement located only under the dry cleaner. The water table appears to be located at approximately the level of the basement slab (there is an open 1 ft. deep pool of water in the basement - water level is only two inches below grade of concrete slab). There is a sump pump located in the basement and the basement apparently floods during most rain events (Davis, 2005).

The property has contained a gas station since at least 1974, when four 4000 gallon gasoline tanks were installed at the site. An additional 1000 gallon kerosene tank was installed in 1984. The gasoline tanks were removed in 1992 and replaced with two 8000 gallon gasoline tanks that are still in service. The 1000 gallon kerosene tank was abandoned in place in 2000 and a new 1000 gallon kerosene tank was installed. The tank information is listed in the Facility Information Report, included in Appendix A.

The date of first dry cleaner is not known, but Corning One Hour Martinizing appeared in the 1981 Corning City Guide at 343 Pulteney West. The 1989 Corning City Guide lists the property as One Hour Techni Clean. The current manager of the dry cleaner took over lease of the property in 1994 and changed the name to Crystal Cleaner. He stated that the original operation was a wet to dry system. This was converted to a dry to dry system in the mid 1980's. He updated the equipment and added a spill protection in the mid-1990's (Davis, 2005).

According to the City of Corning Department of Public Works, the water main along Pultney Road was installed in 1907 and the sewer line was installed around 1908 (Panton, 2005). It is therefore assumed that Crystal Cleaners has always been serviced by public water and sewer.

2.3 PREVIOUS INVESTIGATIONS

Chlorinated solvents were first detected in the City of Corning's water supply wells number 1 and 2 in the early 1980's. These wells are located approximately 950 feet and 1300 feet from Crystal Cleaners, respectively, along the banks of the Cohocton River (Figure 1.1). These two wells are both screened from approximately 50 to 70 feet below ground surface (bgs). Pumping tests indicate that the wells can produce up to one million gallons a day, although they are currently run on an alternating 10 day schedules, with one well producing approximately one million gallons over the ten day period (total running time of approximately 24 hours), and then rotating to the next well for the subsequent ten day period (Panton, 2005).

Tetrachloroethene (PCE) has been detected at low concentrations in both wells. Concentrations typically range from non-detect to 14 micrograms per liter (µg/L), with slightly higher concentrations detected in Well 2 then Well 1. PCE was detected in the samples collected in the 2004 round at concentrations of 1.1 µg/L in Well 1 and 11 µg/L in Well 2. The NYS Class GA standard for PCE is 5 µg/L.

In preparation for selling the Site property, the owner of the plaza that includes Crystal Cleaner hired Teeter Environmental Services, Inc. to conduct a Phase II Site assessment in 2005, primarily for the purpose of determining the condition of the underground fuel tanks for the Site's gas station (Teeter, 2005). Previous investigation boring locations are shown of Figure 2.1. The assessment included the completion of six soil borings (BS-1 to BS-6) to approximately 16 feet bgs; including the collection of groundwater grab samples from four locations. Groundwater samples collected from B-1 and B-3 were analyzed for volatile petroleum hydrocarbons (United States Environmental Protection Agency (USEPA) Method 8260-STARS list) and fuel related semi-volatile organic compounds (SVOCs) (USEPA Method 8270C-STARS list). Groundwater samples collected from B-4 and B-5 were analyzed for volatile organic compounds (VOCs) via the full USEPA Method 8260 list. Because no visual evidence of contamination was noted, and no readings above background were detected on the photoionization detector (PID) when screening soil samples collected from the borings, no soil samples were submitted for laboratory analyses.

SVOCs were not detected in the groundwater samples analyzed. Naphthalene was detected in borings B-1, B-3, and B-4 at concentrations of 29.7 µg/L, 9.9 µg/L, and 5.8 µg/L, respectively, in relation to the NYS guidance value of 10 µg/L. Toluene and xylene were detected in B-1 at concentrations of 6.2 µg/L and 5.2 µg/L respectively, in comparison to the NYS groundwater standard of 5 µg/L. PCE was detected in the two samples analyzed for the full list of VOCs, at concentrations of 7 µg/L in B-5 and 43 µg/L in B-4, in comparison with the NYS groundwater standard of 5 µg/L. The highest concentration was detected at the southern edge of the site property. Although PCE was determined to be present in Site groundwater at concentrations above the NYS groundwater standards of 5 µg/L, no groundwater contours were plotted and no source of the chlorinated solvents in site soils was identified. The Teeter Phase II Report is included in Appendix A.

2.4 PHYSICAL SETTING

Topography

The Site is located in the Cohocton/Chemung River Valley, which runs east-west. The Site property is located at 940 feet above mean sea level (msl), sloping slightly to the south. The surrounding area slopes slightly down to the south, before reaching the dike at the edge of the Chemung River, located 900 feet from the Site. The Chemung River is located at an elevation of

approximately 930 feet above msl, just south of the dike. The topography to the northeast of the site is relatively flat for approximately 0.7 miles, and then rises to a ridge at 1600 feet above msl approximately 1.5 miles from the Site.

Climate

The climate of the area is characterized by moderately warm summers and cold winters. Mean monthly temperatures range from 23 degrees Fahrenheit (°F) in January to 68°F in July. Average annual precipitation is 32 inches. Average annual snowfall is 37 inches (National Climatic Data Center, 2004).

Surface Water Hydrology

The site is not located in an area mapped as either a 100 year or 500 year flood zone (EDR, 2006). Surface drainage from the site generally follows the topography, flowing toward the municipal storm drains located on Pulteney Street. These storm drains flow to a treatment plant located approximately 2.4 miles east of the site (Panton, 2005). The treatment plant discharges to the Chemung River downstream of the site.

Groundwater Hydrology

The Chemung River is a local groundwater discharge area. Groundwater at the Site was encountered at approximately 10 to 12 feet bgs, and is interpreted to flow south towards the River. Groundwater contours for the greater Corning area indicate that groundwater at the site flows in a south-easterly direction, towards the river (USGS, 1982).

Geology

Overburden soils at the Site consisted primarily of fluvial silts, sands and gravels. Surficial geology is mapped as oxidized, non calcareous, fine sand to gravel (Muller, 1986). Teeter described site soils as varying horizontally and vertically and generally consisting of brown and reddish brown gravelly silt with varying amounts of sand, sandy gravel with little silt and clayey silt with some sand and gravel. Based on regional geologic mapping (Rickard and Fisher, 1970) bedrock is expected to consist of shale and siltstones associated with the Upper Devonian West

Falls Group; specifically, the Gardeau Formation, consisting of shale and siltstone; and/or Roricks Glen shale (Rickard and Fisher, 1970).

Site Walkover

On September 9, 2005 MACTEC and the NYSDEC personnel conducted a walkover of the Site area.

SITE WALKOVER ATTENDEES

NAME	TITLE	AFFILIATION/TELEPHONE
Charles Staples	Site Lead	MACTEC Engineering and Consulting 207-775-5401
Mathew Dunham	Environmental Engineer NYSDEC Project Manager	NYSDEC Division of Environmental Remediation, Albany 518-402-9812
Richard Davis	Site Manager	Owner/Manager of Crystal Cleaner
Donald Styker	Site Owner	Owner of Site Property

The site walkover consisted of viewing the Crystal Cleaners property, including the inside of the facility and the basement, and the surrounding neighborhood to assess possible contamination sources and the logistical concerns for the field program. MACTEC personnel documented the walkover with photographs (Included in Appendix B).

Obvious sources of contamination were not observed (i.e., leaking drums); however, detailed inspections of potential sources, including site soils were not conducted during the site walkover. Additional information for the purpose of identifying potential sources was obtained during Task 2.

2.5 FILE REVIEW

MACTEC reviewed files from various state and local agency offices to develop information to support a reclassification or delisting, and to help prepare the scope of work for the SC field investigations. The EDR report was also reviewed for relevant site information.

2.6 SUMMARY OF DATA RECORDS SEARCH AND ASSESSMENT FINDINGS

Under federal and state regulations a solid waste may be regulated as a hazardous waste if it is a material included in one of USEPA's or the NYSDEC's lists of hazardous wastes. If a material is regulated because of its inclusion on a federal or state list, it is commonly referred to as a "listed hazardous waste." A waste may also be regulated under the Resource Conservation and Recovery Act as a "characteristic hazardous waste" if it exhibits one of the characteristics of toxicity, corrosivity, reactivity, or flammability.

Results of sampling and analysis of the Corning supply wells No. 1 and 2 and of the groundwater at the Site property indicated the presence of chlorinated solvents (PCE) in groundwater. Spent chlorinated solvents not originating from a household sources, including PCE are included on both the USEPA's and the NYSDEC's lists of hazardous wastes. Under 6 NYCRR Part 371.4(a) (1), these spent solvents constitute hazardous waste from non-specified sources. Disposal of these chlorinated solvents has been confirmed by available analytical results, but the source area has not been identified.

As defined by 6 NYCRR Part 375, significant threat can be established by documenting a contravention of environmental standards. Surface water and groundwater are the only media for which NYS has promulgated standards. Under NYS Water Quality Regulations (6 NYCRR Parts 700-705) the state has set numeric standards that are the maximum concentration of compounds in groundwater and surface water that protect public health and/or the environment (NYS, 1999b).

Groundwater analytical data collected at the Site indicates that PCE contamination in Site groundwater exceeds the NYS groundwater standards. It was not known if this PCE contamination originated from the Site, or if it was migrating off-site and contaminating the public supply wells. It was therefore not known if the Site posed a significant threat. As a result, the SC field investigations were conducted to:

- collect the data necessary to verify the likelihood of uncontrolled waste disposal,
- determine if potential contamination is present on Site, and is migrating offsite, and
- provide sufficient information to allow the NYSDEC to re-classify the site.

3.0 SCOPE OF WORK

To reclassify the Site, the NYSDEC requires data documenting hazardous waste disposal as set forth in 6 NYCRR Part 371, and the potential significant threat to human health and the environment as defined by 6 NYCRR Part 375. Because data necessary to determine if the contaminants present in Site groundwater (specifically PCE) originated from the Site and are migrating off-site, or if those contaminants pose a potential significant threat to human health and the environment were not available in federal and state files reviewed during Task 1, additional field investigations were performed as described below. Task 2 activities included the Field Investigation. The objective of Task 2 activities was to determine, if possible, whether the VOCs detected in the Site groundwater originated from the Site, and whether potential onsite VOCs contamination is migrating offsite. An additional objective was to collect data to determine if the Site is the source of PCE contamination in the two village supply wells. Task 3 is the preparation and distribution of this Report.

TASK 2 - FIELD INVESTIGATIONS

The following subsections describe the activities conducted during the field investigation portion of the Site SC. The work followed the scope of work as outlined in the SC Work Plan (MACTEC, 2005). The field investigation was conducted in accordance with the specifications presented in the Quality Assurance Program Plan (ABB Environmental Services, 1995) and the site specific Quality Assurance Project Plan. Off-site laboratory analyses was performed by Chemtech Consulting Group, Inc. (Chemtech), a New York State Department of Health (NYSDOH) approved laboratory. Off-site laboratory analysis complied with the NYSDEC Analytical Services Protocols (ASP) (NYSDEC, 2000).

3.1 GENERAL FIELD ACTIVITIES

General field activities, including mobilization, health and safety, and decontamination, are described in the following subsections.

3.1.1 Mobilization

After receiving the NYSDEC authorization to begin fieldwork, MACTEC and its subcontractors conducted utility clearance, mobilized to the Site and began the field exploration program.

A field team orientation meeting was held on-site with MACTEC personnel to familiarize field workers with site history, health and safety requirements, equipment calibration procedures, and other field procedures.

3.1.2 Health and Safety

Field investigation activities were conducted at Level D personal protection. Based on PID readings, no upgrades on personal protection were warranted.

3.1.3 Decontamination

Sampling methods and equipment for this field program were chosen to minimize investigation derived waste and minimize possibility of cross contamination. Disposable sampling equipment was used as much as practical to minimize decontamination time and water disposal.

Non disposable sampling equipment was decontaminated by 1) scrubbing the sample collection equipment with potable water and Liquinox, rinsing with potable water, rinsing with deionized water, and then allowing the equipment to air dry, or 2) steam cleaning the equipment and then allowing the equipment to air dry. Decontamination fluids did not exhibit visual or olfactory evidence of contamination and were released to the ground surface in the area of the exploration, so as to allow the liquids to infiltrate into the soil.

3.1.4 Investigation Derived Wastes

The field investigation did not result in the generation of wastes that were considered hazardous (i.e., no visual or olfactory signs of contamination, and no PID readings above 5 parts per million (ppm) were detected). Therefore drill cuttings and purge water resulting from the investigation were placed on the ground surface in the area of exploration and personal protective equipment and disposable sampling equipment were double bagged and disposed of as non-hazardous refuse.

3.2 BASEMENT OPEN WATER SAMPLING

Two samples were obtained from surface water present in the basement below the dry cleaner on January 23, 2006. One sample (SW-2) was collected from the approximate 4 foot by 4 foot by one foot deep open "pool" located in the center of the basement, and one sample (SW-1) was collected from the sump, located in the southeast corner of the basement. Approximate Sample locations are shown on Figure 3.1. Samples were collected directly into the sample vials.

The samples were submitted to the analytical laboratory and analyzed for target compound list (TCL) VOCs using USEPA OLM04.2 methods as described in the NYSDEC ASP of June 2000.

3.3 ROUND ONE GEOPROBE® BORINGS AND SAMPLING

Field investigation activities included the completion of Geoprobe® borings, the collection and analysis of groundwater, soil, and soil vapor samples, and the installation of microwells. Geoprobe sampling was conducted from January 23 to 26, 2006. The purpose of the activities was to provide groundwater data for comparison to NYS Class GA Groundwater Quality Standards set forth under 6 NYCRR Parts 700-705 (NYS, 1999b), and to assist the NYSDEC in evaluating significant threat to public health and the environment as defined by 6 NYCRR Part 375 (NYS, 2006). Soil sample results were used to assess whether hazardous waste constituents are present in site soils, and, if possible, confirm a source of chlorinated solvents. Soil vapor sample results were used to evaluate whether VOCs present in soil and/or groundwater are migrating towards occupied buildings via vapor migration.

MACTEC used a Geoprobe® sampling device to collect groundwater and soil samples to identify potential chlorinated solvents. The Geoprobe® pushes and/or hammers rods and probe tips into the subsurface for sample collection. A total of 17 borings and three soil vapor collection points were completed, including the installation of four microwells. A total of 35 Groundwater, four soil, and three soil vapor samples were collected at this Site.

In addition, 10 groundwater samples were collected from six Geoprobe® borings on February 6 and 7, 2006 for an investigation conducted by MACTEC at the Former Helwigs Cleaners Site (MACTEC, 2006). These boring locations are also shown on Figure 3.1 (HGW-1 to HGW-6).

MACTEC worked closely with the NYSDEC, the Crystal Cleaners owner, the neighboring property owners, and utility companies to obtain access to the exploration locations. Boring locations are shown on Figure 3.1. Locations were chosen to determine groundwater conditions upgradient and downgradient of, as well as adjacent to, the site building. Additional downgradient samples were collected to determine if potential contaminants are migrating in groundwater towards the City supply wells.

Soil Sampling. Soil samples were collected using a four-foot long 2-inch diameter core sampler with an acrylic liner for the collection of discrete subsurface soil samples. Soil samples were collected continuously from the ground surface to the top of the groundwater table. PID headspace readings were used to screen soil samples for the presence of VOCs as each soil sample was removed from the sample collection tube. Samples were described using the Unified Soil Classification System. The sample description and classification, VOC headspace reading, and boring observations were recorded on the Field Data Record, included in Appendix C. Based on the PID readings and physical evidence such as color or odor, four unsaturated soil samples were submitted to the laboratory for analysis. Samples exhibiting the highest PID readings and physical evidence of contamination were selected for analysis. Soil samples were shipped to Chemtech for analyses of TCL VOCs using USEPA OLM04.2 methods as described in the NYSDEC ASP of June 2000. Off-site laboratory analysis included Category B deliverables.

Groundwater Sampling. Groundwater samples were collected using a small diameter stainless steel wire wound screen that was exposed to the aquifer, after being pushed to the desired depth interval. A peristaltic pump was used for the collection of discrete groundwater samples. One tubing volume of water was purged and one set of parameters including temperature, conductivity, pH, and turbidity were collected before sampling. VOC samples were collected at a low purge rate (approximately 100 milliliters per minute) to minimize potential volatilization.

To assess vertical extent of contamination, groundwater samples were collected from two locations in each boring, the water table and 8-10 feet into the water table (8 feet below the first sample). For boring GW-1, only one water sample could be collected due to cobbles, and three water samples were collected from boring GW-4. Each boring was completed to at least 10 feet into the water table, present at approximately 10 feet bgs. Groundwater samples were shipped to Chemtech for analyses TCL VOCs using USEPA OLM04.2 methods. Off-site laboratory analysis included Category B deliverables.

Microwell Installation. To determine groundwater flow direction at the Site, four Geoprobe® borings (GW-1, GW-5, GW-6, and GW-10) were completed as microwells. Microwell locations are shown on Figure 3.1. Groundwater was encountered at approximately 10 feet bgs. The one-inch diameter microwells were installed after soil and groundwater samples were collected from each boring. The microwells were installed as piezometers and used for water level measurements only. Microwells were constructed with schedule 40 polyvinyl chloride (PVC), with 10 foot lengths of 0.01-inch machine slotted well screens. The well screens for GW-5, GW6, and GW-11 were set with approximately 2 feet of screen above the water table to determine water table elevations and create a potentiometric map. GW-1 was set from 15 to 25 feet bgs, approximately five feet below the water table. The wells were constructed with a # 0 sand pack or native soil backfill and sealed at the ground surface with bentonite. The wells were completed with a locking cap and a six inch flush mount cover. The wells were developed for twenty minutes with a peristaltic pump to clean the screen and determine if the wells were conductive with groundwater.

Soil Vapor Sampling. Based on proximity to nearby residences and/or businesses, and discussions with the NYSDEC Project Manager, three soil vapor samples (GV-1 to GV-3) were collected to evaluate the potential vapor migration of contaminants from the groundwater. Soil vapor samples were collected using a Geoprobe® sampling device.

The Geoprobe® rods were pushed to between 6 and 8 feet bgs (expected to be below the rain infiltration line, but above the water table fringe zone). Soil vapor collected just above the water table gives an indication of the possible vapor migration from potentially contaminated groundwater.

Soil vapor samples were collected from the Geoprobe® PRT (Post Run Tubing) points. Upon reaching 6 feet bgs, the Geoprobe® rods were pulled back 0.5 feet, leaving a disposable stainless steel tip in the ground and exposing the bottom of the open rods to the soil. A ¼-inch outside diameter low density polyethylene tubing was then attached to the bottom of the Geoprobe rods using a stainless steel adapter and o-rings, allowing air to be pulled from below the bottom of the rods. The tubing was then purged at the ground surface and the soil vapor sample was collected from the tubing into the sample container. In addition, the outside of the rods were sealed at the ground surface with pre-hydrated bentonite. Approximately 2 liters of soil vapor, plus the volume of the tubing, was purged at a rate of 400 ml/min using 580B OVM PID pump before collecting samples. During the soil vapor purge, vapors were screened using a PID. In addition, helium leak

tests were conducted on a subset of the Region 8 Dry Cleaners Sites soil vapor samples to ensure samples were representative of sub-surface conditions and not outdoor ambient air. Helium tests were set up by encapsulating the sample point with a bucket sealed to the ground surface with bentonite. The soil vapor samples were collected with one-liter SUMMA®-type canisters with flow valves (set to approximately 30 minutes per sample). Flow into the canisters was less than 0.1 liters per minute, as requested by the NYSDOH. Samples were sent to Chemtech for VOC analysis by USEPA Method TO-15.

3.4 SUB-SLAB SOIL VAPOR SAMPLING

Based on site observations during the field program, and discussions with the NYSDEC and the property owner, one sub-slab soil vapor sample was collected on January 26, 2006 from below the Site building concrete slab, within the vacant retail space in the east end of the building (SV-1; approximate location shown on Figure 3.1). To complete the sampling, a one-inch diameter hole was drilled through the concrete slab with a hammer drill. The hole was then swept to remove drill cuttings/dust from the area. A ¼-inch piece of Teflon tubing was inserted through a 1" diameter rubber stopper, and placed into the hole, so that the bottom of the tubing was below the slab floor and the stopper rested inside the one-inch hole, forming a seal. The stopper was then covered with bees wax to provide an impenetrable seal for the migration of indoor air into the sub-slab. One 60 cubic centimeter (cc) volume of air was purged from the tubing with a polyethylene syringe. A 6-liter SUMMA®-type canister with a 24-hour flow valve was connected to the tubing. The time of sample collection, canister vacuum (in inches Mercury), weather conditions, and barometric pressure were recorded in the field log book.

Approximately 24 hours after sample collection, the flow valves were shut off. The time, remaining vacuum in the canister, and barometric pressure were noted in the field log book. The samples were shipped to Chemtech laboratories for analyses of VOCs via USEPA Method TO-15. Laboratory analysis included Category B deliverables.

Upon completion of the sampling, the tubing and stopper were removed from the building floor and the hole was filled completely with a fast drying hydraulic concrete (i.e. Quickcrete).

3.5 ROUND TWO GEOPROBE® BORINGS AND GROUNDWATER SAMPLING

Based on analytical results from the January 2006 sampling event, it was determined that additional groundwater samples and water elevation points were necessary to better characterize the Site and groundwater flow direction. The additional field investigation activities, conducted from October 31 to November 2, 2006, included the completion of eight Geoprobe® borings (GS-18 to GS-25) and the collection and analysis of 16 groundwater samples and the installation of three microwells.

3.5.1 Round Two Geoprobe Sampling and Microwell Installations

During Round Two, MACTEC used a Geoprobe® 66 DT rubber-mounted track rig sampling device to collect groundwater and soil samples to identify potential chlorinated solvents.

MACTEC worked closely with the NYSDEC, the Crystal Cleaners owner, the neighboring property owners, and utility companies to obtain access to the exploration locations. The additional locations for the borings are shown on Figure 3.1. Groundwater boring locations were chosen to determine if groundwater concentrations upgradient and crossgradient of the Site exceeded the NYS Class GA criteria.

Soil Sampling. Soil samples were collected using a 4-foot long 2-inch diameter core sampler with an acrylic liner for the collection of discrete subsurface soil samples. Soil samples were collected continuously from the ground surface to 16 feet bgs at all boring locations for visual characterization. Samples were described using the Unified Soil Classification System. PID headspace readings were used to screen soil samples for the presence of VOCs. The sample description and classification, VOC headspace reading, and boring observations were recorded on the Field Data Record, included in Appendix C. No samples were collected for laboratory analyses.

Groundwater Sampling. Geoprobe groundwater samples were collected as described in Section 3.3 above.

To assess vertical extent of contamination, MACTEC collected groundwater samples from two depth intervals in each boring, the water table and 10 feet into the water table (10 feet below the first sample). The water table was encountered at approximately 15 feet bgs. Groundwater

sampling records are provided in Appendix C. Groundwater samples were shipped to Chemtech for analyses of TCL VOCs using USEPA OLM04.2 Methods as described in the NYSDEC ASP of June 2000. Off-site laboratory analysis included Category B deliverables.

Microwell Installation. To better characterize groundwater flow direction at the Site, three additional Geoprobe® borings (GW-18, GW-19, and GW-23) were completed as microwells. Microwell GW-18 was installed up gradient of the Site in the City right of way (ROW) of Taylor Street. Microwell, GW-19, was also installed up gradient of the Site in the ROW of Townsend Avenue. Microwell, GW-23, was installed cross-gradient of the Site in the ROW of Remington Boulevard. Microwell locations are shown on Figure 3.1.

Groundwater was encountered at approximately 15 feet bgs. The one-inch diameter microwells were installed after groundwater samples were collected from each boring. The microwells were installed as piezometers and used primarily for water level measurements. Microwells were constructed with schedule 40 PVC, with 10 foot lengths of 0.01-inch machine slotted well screens. The well screens for GW-18, and GW-19 were set from 11 to 21 feet bgs, with approximately 4 feet of screen above the water table. GW-23 was set from 13.5 to 23.5 feet bgs, with approximately 2 feet of screen above the water table. From these piezometers, water table elevations were determined and a potentiometric map of the Site was created. The wells were constructed with a # 0 sand pack or the native soil backfill and sealed at the ground surface with cement. The wells were completed with a locking cap and a six inch flush mount cover. The wells were developed for twenty minutes with a peristaltic pump to clean the screen and determine if the wells were conductive with groundwater. Well construction diagrams are included in Appendix C.

3.5.2 Existing Microwell Sampling

Four existing 1-inch diameter microwells (GW-1, GW-5, GW-6, and GW-10) were sampled on November 1, 2006. All four microwells were previously installed by MACTEC in January 2006. The existing microwells were sampled in accordance with the USEPA “low flow” guidance. Groundwater parameters including water levels, turbidity, temperature, dissolved oxygen, specific conductance, pH and redox potential were recorded in a field log and on a field data record. The low flow sampling requirements were met while sampling these four existing wells. Groundwater Field Data Records are available in Appendix C.

These samples were submitted to Chemtech and analyzed for TCL VOCs using USEPA OLM04.2 methods as described in the NYSDEC ASP of June 2000.

3.6 WATER LEVEL SURVEY

Water levels were measurements were conducted on February 9, 2006 and February 1, 2007. The February 9, 2006 round included water level measurements at the initial microwells (GW-1, GW-5, GW-6, and GW-10). The February 1, 2007 round consisted of measuring water levels at six of the seven microwells (GW-10 was buried under snow and ice and not accessible). Well caps were opened and the wells were allowed to equilibrate to atmospheric pressure. The depths of the wells as well as the depth to water were measured using a conductivity probe from the top of well risers. Groundwater table elevations were calculated from the well riser elevations (subsection 3.6). Well information and groundwater measurements are presented in Table 3.1.

3.7 SITE SURVEY

Upon completion of field investigation activities, MACTEC's survey subcontractor, Lu Engineers, complete a survey of the Site and surrounding area and created a base map. Horizontal locations were tied to the NYS Plane Coordinate System using North American Datum (NAD) of 1983. The site plan provides horizontal locations of relevant Site features, including surrounding homes and businesses at a scale of 1 inch to 50 feet. Relevant features include, but are not limited to all structures, buildings, roads, fences, new monitoring wells, underground utilities, fire plugs, and power poles.

Vertical elevations of the three new micro wells were tied to msl, North Atlantic Vertical Datum (NAVD) of 1988, and measured to an accuracy of 0.01 feet. Horizontal well measurements were to an accuracy of 0.1 feet.

The base map was used to accurately locate all Geoprobe® sample points, microwells, and any other media sampling locations. Temporary sample points were located using a Trimble global positioning system. Sample points are included on Figure 3.1, and the Lu Engineers survey map is included in Appendix D.

4.0 DATA ASSESSMENT

This section presents results of the laboratory analyses for soil, groundwater, air samples and additional groundwater samples collected during Task 2, as well as results of the water level survey.

4.1 ANALYTICAL RESULTS

Soil, groundwater, and soil vapor analytical results were compared to appropriate standards or guidelines. Reported concentrations of individual analytes indicating contravention of standards or guidelines are summarized in the following sections, and noted on Tables 4.1, 4.2, 4.3, and 4.5.

A Data Usability Summary Report (DUSR) was completed in accordance with the NYSDEC's Guidance for the Development of Data Usability Summary Reports (NYSDEC, 1997). This report and complete analytical results including tentatively identified compounds (TICS) are presented in Appendix E.

Based on laboratory or data usability review, some of the data was qualified with a J, B, D and/or an R. Compounds were qualified J if the concentration listed was an estimated value, which was less than the specified minimum reporting limit but greater than the instrument detection limit. Compounds qualified J were analyzed for and determined to be present in the sample and the mass spectrum of the compound met the identification criteria of the method. The reporting limits for most target VOCs using the OLM04.2 Methods, including the target chlorinated solvents compounds were 10 µg/L. This is above most of the NYS Class GA groundwater standards; however, the actual instrument detection limit was below the NYS Class GA groundwater standards. A list of Chemtech's instrument reporting limits for the OLM04.2 Method is included in Appendix E.

Compounds qualified B indicate that the compound was found in the trip blank, or laboratory blank, and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

Compounds qualified D indicate that the compound was reported from an analytical run that required a dilution due to concentrations greater than the highest calibration standard.

Compounds qualified R indicate that the compound was rejected during data validation. Results are rejected when validation criteria are not met by the laboratory.

Analytical results were compared to the standards, criteria, or guidelines (SCGs) described below.

Soil Samples. Analytical results were compared to NYS Soil SCGs. Soil SCGs are based on the NYSDEC's Cleanup Objectives ("Technical and Administrative Guidance Memorandum 4046; Determination of Soil Cleanup Objectives and Cleanup Levels" and 6 NYCRR Subpart 375-6 - Remedial Program Soil Cleanup Objectives for unrestricted use).

Groundwater Samples. Analytical results were compared to: (1) the NYS Class GA Groundwater Quality Standards from 6 NYCRR Parts 700-706 (NYS, 1999b) or, where applicable, (2) the NYS Class GA Groundwater Quality Guidance Values from the Division of Water Technical and Operational Guidance Series 1.1.1 "Ambient Water Quality Standards and Guidance Values" (NYSDEC, 1998).

Surfacewater Samples. Analytical results were compared to: (1) the NYS Class GA Groundwater Quality Standards from 6 NYCRR Parts 700-706 (NYS, 1999b) or, where applicable, (2) the NYS Class GA Groundwater Quality Guidance Values from the Division of Water Technical and Operational Guidance Series 1.1.1 "Ambient Water Quality Standards and Guidance Values" (NYSDEC, 1998).

Geoprobe® Soil Vapor Samples. There are currently no SCGs for concentrations of compounds in soil vapor. Soil vapor samples were collected to determine whether this environmental medium is contaminated, characterize the nature and extent of contamination, and identify possible sources of the contamination.

Sub-Slab Soil Vapor Sample. The sub-slab soil vapor sample was collected to identify potential exposure associated with soil vapor intrusion and to characterize the nature and extent of sub-surface vapor contamination. The sub-slab sample results were compared to Matrix 1 and Matrix 2 from the New York State Department of Health, Guidance for Evaluating Soil Vapor Intrusion in

the State of New York (NYSDOH, 2006). Those SCGs are typically used in conjunction with indoor air samples, but no indoor air samples were collected.

4.1.1 Soil Sample Results

A summary of target VOCs detected in soil samples is presented in Table 4.1. Boring locations are shown on Figure 3.1 (GS locations are same as GW locations).

VOCs were not detected in soil samples at concentrations above the NYSDEC Soil Cleanup Objectives, and all detected compounds were at concentrations less than 2 micrograms per kilogram (µg/kg) (NYSDEC, 1994).

Trace concentrations of methylene chloride were detected at sample locations GS-2 and GS-3. Benzene and toluene were found at trace concentrations at sample locations GS-3 and GS-4 and trace concentrations of 1,2,4-trichlorobenzene, 1,4-dichlorobenezene, benzene, PCE, toluene, trichlorofluoromethane, and m/p-xylene were detected at location GS-1.

4.1.2 Groundwater Sample Results

A summary of target VOCs detected in groundwater samples is presented in Tables 4.2 (January 2006) and 4.3 (October/November 2006) and a summary of PCE concentrations is presented on Figure 4.1. Formal results from the SC at the Former Helwigs Dry Cleaners are not presented in this document, although due to its proximity to the site, concentrations of PCE detected in the Helwig site Geoprobe borings (HGW-1 to HGW-6) are presented on Figure 4.1.

Over the two sampling events, fifty-three samples were collected at twenty five sample locations. PCE was detected in 18 of the 25 sample locations with detections ranging from 0.74 J µg/L (GW-3) to 820 D µg/L (GW-13). PCE detections at Sixteen of the 18 locations exceeded the NYS Class GA groundwater standard for PCE of 5 µg/L (see Table 4.2 and 4.3). The highest concentrations were detected at locations GW-4 (610 D µg/L) and GW-13 (820 D µg/L), located approximately 5 feet and 270 feet southeast of the property building, respectively, in the presumed direction of groundwater flow. PCE was not detected in the four presumed upgradient sample locations GW-18, GW-19, GW-20, and GW-21. Low concentrations of PCE were detected slightly upgradient of

the Site building at locations GW-1 (11 µg/L) and GW-11 (9.7 J µg/L). Groundwater sample locations and PCE detections are presented on Figure 4.3.

Cis-1,2-dichloroethene (cis-1,2-DCE) was detected at ten of the 25 sample locations at detections ranging from 0.53 µg/L (GW-7) to 580 µg/L (GW-13). Five of the 25 locations had detections that exceeded the NYS Class GA groundwater standard for Cis-1,2-DCE of 5 µg/L.

Trichloroethene (TCE) was detected in ten of the 25 sample locations at concentrations ranging from 0.57 µg/L (GW-5) to 180 µg/L (GW-13). Three of the seventeen locations had detections that exceeded the NYS Class GA groundwater standard for TCE of 5 µg/L.

1,1,2-trichloroethane (1,1,2-TCA) was detected at sample location GW-4 at a concentration of 3.9 µg/L which exceeds the NYS Class GA groundwater standard for 1,1,2-TCA of 1 µg/L.

Trans-1,2-dichloroethene (trans-1,2-DCE) was detected at one of the 25 sample locations (GW-13) at both sample depths at concentrations ranging from 6.3 J µg/L (17 ft bgs) to 6.5 J µg/L (25 ft bgs). Both sample depths had detected concentrations which exceed the NYS Class GA groundwater standard for Trans-1,2-DCE of 5 µg/L.

Vinyl chloride was detected at one of the 25 sample locations (GW-13) at both sample depths at concentrations ranging from 14 J µg/L (25 ft bgs) to 56 J µg/L (17 ft bgs). Both sample depths had detections which exceed the NYS Class GA groundwater standard for vinyl chloride of 2 µg/L.

Trace concentrations of 1,1-dichloroethene were detected at sample location GW-13 (1.6 J µg/L).

Additional non-chlorinated compounds were also detected in groundwater samples. Benzene was detected at location GW-21 (1.1 µg/L at a concentration slightly above the NYS standard of 1 µg/L). Trace (below groundwater standard) concentrations of one or more of the following compounds: toluene benzene, ethylbenzene, isopropyl benzene, cyclohexane, methyl cyclohexane, xylene, 2-butanone, and acetone; were detected at locations GW-6, GW-10 GW-18, GW-20 and GW-21.

In addition to these analytical results, groundwater analytical results from the investigation at the Former Helwigs Cleaners site were reviewed (MACTEC, 2006). VOCs were not detected in the

six borings (HGW-1 to HGW-6) at concentration above the NYS Class GA groundwater standards. PCE and TCE were not detected in the six borings. The only chlorinated solvent detected was a trace concentration (1.4 J µg/L) of cis-1,2-DCE detected at sample location HGW-3. Former Helwigs Cleaners boring locations are shown on Figure 4.1.

4.1.3 Surfacewater Sample Results

A summary of target VOCs detected in surface samples is presented in Table 4.3. Since surface samples were collected from a basement sump, and is more representative of groundwater conditions than ecologically viable surface water, analytical results are compared to groundwater standards.

PCE was detected at both of the surface water sample locations at concentrations ranging from 8.1 J µg/L (SW-2) to 17 µg/L (SW-1). Both detections exceeded the NYS Class GA Groundwater standard for PCE of 5 µg/L.

Cis-1,2-DCE was detected in samples SW-1 (88 µg/L) and SW-2 (1.2 J µg/L). The detection of cis-1,2-DCE in sample SW-1 exceeded the NYS Class GA groundwater standard of 5 µg/L. Vinyl chloride (3.2 J µg/L) was also detected in sample SW-1. The detection of vinyl chloride in sample SW-1 exceeds the NYS Class GA Groundwater Standard of 2 µg/L.

In addition to these compounds trace concentrations of trans-1,2-DCE (0.94 J µg/L) and TCE (1.7 J µg/L) were detected in sample SW-1.

4.1.4 Soil Vapor Sample Results

A summary of target VOCs detected in soil vapor samples is presented in Table 4.4.

The only VOCs for which the NYSDOH has promulgated guidance values for soil vapor are TCE, PCE, and 1,1,1-trichloroethane (1,1,1-TCA). These guidance values are only applicable when evaluating sub-slab soil vapor samples, and not exterior soil vapor samples.

Sub-Slab Soil Vapor Sample Results. PCE was detected in the sub-slab soil vapor sample at a concentration of 747 D micrograms per cubic meter (µg/m^3) and TCE was detected in the sub-slab

sample at a concentration of 30.2 µg/m^3. These concentrations are below the 1000 µg/m^3 and 250 µg/m^3 concentrations corresponding, respectively; however, in the absence of indoor air data, remedial actions and/or monitoring recommendations cannot be made at this time. 1,1,1-TCA was not detected in the sub-slab soil vapor sample.

Geoprobe Soil Vapor Sample Results. There are no current guidance or standards for exterior soil vapor sample results. PCE was detected in the three soil vapor samples at concentrations less than 10 µg/m^3. TCE and 1,1,1-TCA were not detected in soil vapor samples.

4.2 POTENTIOMETRIC SURFACE MAP

The microwell survey and depth to water measurements were used to evaluate groundwater flow. Microwell survey and water elevation data are presented in Table 3.1. Depth to water across the survey area varied from approximately 9.5 feet bgs to 15 feet bgs. Groundwater elevations varied from 922.76 feet above msl, to 923.17 feet above msl in the initial February 2006 round and from 921.12 feet above msl to 923.18 feet above msl during the February 2007 round. The groundwater table gradient appears to be relatively flat, varying by only 0.28 feet in elevation over 120 feet of distance (GW-6 to GW-5) in January 2006, or 2.03 feet in elevation over approximately 400 feet of distance (GW-19 to GW-23) in February 2007. The water elevation in microwell GW-1, located north of the Site building and presumably upgradient from the building, was slightly lower than the other microwell water elevations. Water elevations in GW-5 also appear to be relatively high in comparison to the other measurements. It is possible that utility lines located along Cutler and West Pulteney are affecting localized water elevations (i.e. potential groundwater mounding from water infiltrating along sewer lines). Based on measured groundwater elevations, interpreted groundwater flow is to the south/southeast, towards the Cohocton River, which is consistent with the USGSs groundwater study (USGS, 1982). Note that pumping on the Corning wells may induce the solvent plume to migrate towards the wells. The February 2007 groundwater data is presented on Figure 4.2.

5.0 INVESTIGATION FINDINGS

A review of physical and chemical data collected during the SC resulted in the following findings:

1) The site is located in a mixed residential/commercial neighborhood that is serviced by public water. Low concentrations of PCE have been detected in the City of Corning's public supply wells #1 and #2, located approximately 950 feet and 1300 feet from Crystal Cleaners, respectively, along the banks of the Cohocton River. Groundwater contours for the greater Corning area indicate that groundwater at the site flows in a southeasterly direction towards the river (USGS, 1982).

2) No chlorinated solvents were detected in the five soil samples collected. Four of these samples were collected from around the Site building.

3) PCE, a common dry cleaning solvent and a NYS listed hazardous waste, was detected in groundwater samples collected from 18 of the 25 sample locations; concentrations detected exceeded NYS groundwater standard of 5 µg/L for PCE at 16 of the 25 locations. PCE was not detected in the four upgradient locations GW-18, GW-19, GW-20 (potentially cross-gradient) and GW-21. PCE was detected in groundwater samples collected from presumably slightly upgradient sample locations GW-1, GW-2, and GW-11 at concentrations ranging from 2.1 µg/L to 11 µg/L. PCE was also collected in presumably cross gradient sample locations GW-10 (110 µg/L) and GW-9 (280 µg/L) at concentrations in exceedance of groundwater standards. PCE was detected at the highest concentrations in groundwater samples collected from locations GW-4 (610 D µg/L) and GW-13 (820 D µg/L), located immediately downgradient of the Site building and approximately 270 feet downgradient of the Site building, respectively.

4) Chlorinated solvents were detected in both the open sump and the 4x4 hole in the basement below the dry cleaner. The highest concentrations were detected in the sump, which is located below the southeast corner of the building. Based on the depth of groundwater in microwell GW-4, the water in the sumps is presumed to represent groundwater. Concentrations of PCE (16 µg/L), cis-1,2-DCE (88 µg/L), and vinyl chloride (3.2 J) exceeded the NYS Class GA groundwater standards of 5 µg/L, 5 µg/L and 2 µg/L, respectively.

5) The detection of PCE breakdown products in groundwater samples collected down gradient of the Site, including TCE (maximum concentration of 180 µg/L), cis-1,2-DCE (maximum concentration of 580 D µg/L), trans-1,2-DCE (maximum concentration of 6.3 J µg/L), 1,1- DCE (maximum concentration of 1.6 J µg/L) and vinyl chloride (maximum concentration of 56 J µg/L), as well as a decrease in PCE concentrations as one moves further downgradient from GW-13, indicate that successive dechlorination, likely due to biodegradation, of the solvents is occurring. Concentrations of chlorinated solvents are also likely diminishing downgradient of the Site due to dilution and diffusion within the groundwater column. Each of these breakdown products, with the exception of 1,1-DCE, exceeded NYS groundwater standards at a minimum of one down gradient location.

6) PCE was detected in the sub-slab soil vapor sample from SV-1 at a concentration of 747 D $\mu g/m^3$. This concentration is above the NYSDOH sub-slab soil vapor concentration recommended for monitoring (100 $\mu g/m^3$) but below the concentration recommended for mitigation (1000 $\mu g/m^3$). However, in the absence of indoor air data remedial actions

and/or monitoring recommendations cannot be made at this time. TCE was also detected in the sub-slab soil vapor sample at a concentration of 30 µg/m^3.

7) Trace concentrations (less than 10 µg/m^3) of PCE were detected in the three Geoprobe soil vapor samples. TCE was not detected in the Geoprobe soil vapor samples.

8) Although the Site contains a fueling station and associated petroleum underground storage tanks, only trace concentrations (less than 2 µg/kg soil and less than 5 µg/L groundwater) of fuel related VOCs were detected. These concentrations are below applicable standards or guidance values.

Data Gaps. Based on the SC, the following data gaps still exist:

1) No soil samples were collected from below the Site building and potential source area soil concentrations below the dry cleaning facility are not known.

2) The extent of the chlorinated solvent groundwater plume above the NYS standards has not been fully defined.

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TABLES

Table 3.1: Microwell Data

Location	Northing	Easting	Screen Depth (ft bgs)	Casing Elevation	Riser Elevation	DTW 2/9/2006	Water Elevation 2/9/06	DTW 2/1/2007	Water Elevation 2/1/07
GW-01	784833.22	686874.93	16.6-25.6	938.05	937.96	15.20	922.76	16.08	921.88
GW-05	784642.44	686939.03	6-16	932.42	932.26	9.37	922.89	9.53	922.73
GW-06	784750.55	686899.83	6.8-16.8	934.48	934.25	11.08	923.17	12.02	922.23
GW-10	784795.95	686785.46	8-18	934.89	934.70	11.62	923.08	NA	NA
GW-18	785118.56	686578.18	14.1-24.1	938.02	937.76	NA	NA	14.93	922.83
GW-19	784041.48	686769.82	10.8-20.8	939.12	938.75	NA	NA	15.57	923.18
GW-23	784689.28	686586.14	12-22	938.35	938.11	NA	NA	16.99	921.12

Notes:
ft bgs = feet below ground surface.
DTW = Depth to Water as measured from top of PVC riser by MACTEC Engineering.
Wells surveyed by Lu Engineers.

Created by: CRS 2/6/07
Checked by: BAS 2/8/07

Table 4.1: Soil Sample VOC Results

Location Name		GS-1 (GW-1)		GS-2 (GW-2)		GS-3 (GW-3)		GS-4 (GW-4)		GS-4 (GW-4)		GS-5 (GW-5)	
Field Sample Id		CRGS00100601XX		CRGS00200701XX		CRGS00300701XX		CRGS00400701XD		CRGS00400701XX		CRGS00500801XX	
Sample Depth (ft bgs)		6-8		7-9		7-9		7-9		7-9		8-10	
Field Sample Date		1/24/2006		1/25/2006		1/25/2006		1/26/2006		1/26/2006		1/25/2006	
QC Code		FS		FS		FS		FD		FS		FS	
Paramater	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,2,4-Trichlorobenzene	670*	**0.58**	**J**	11	U	12	U	12	U	11	U	12	UJ
1,4-Dichlorobenzene	1800	**0.59**	**J**	11	U	12	U	12	U	11	U	12	UJ
Benzene	60	**0.73**	**J**	11	U	12	U	**0.65**	**J**	11	U	12	UJ
Methylene chloride	50	10	U	**1.5**	**J**	**1.6**	**J**	12	U	11	U	12	UJ
Tetrachloroethene	1300	**0.64**	**J**	11	U	12	U	12	U	11	U	12	UJ
Toluene	700	**0.66**	**J**	11	U	12	U	**0.8**	**J**	11	U	12	UJ
Trichlorofluoromethane	NA	**1.6**	**J**	11	UJ	12	UJ	12	U	11	U	12	UJ
Xylene, m/p	260	**1.3**	**J**	11	U	12	U	12	U	11	U	12	UJ

Notes:

Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.

Results in microgram per kilogram (µg/kg). Detections are shown in bold.

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the reporting limit

J = Estimated value

Criteria = Values from 6 NYCRR 375- Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives.

*= Value from NYSDEC TAGM 4046.

NA = Not Available

Table Created by: ASZ 6/1/06

Table Checked by: CRS 6/9/06

Table 4.2: Groundwater VOC Results

Location Name		GW-1		GW-2		GW-2		GW-3		GW-3		GW-4	
Field Sample Id		CRGW00102601XX		CRGW00201801XA		CRGW00202601XX		CRGW00301801XA		CRGW00302601XX		CRGW00401201XA	
Sample Depth (ft bgs)		26		18		26		18		26		12	
Field Sample Date		1/24/2006		1/25/2006		1/25/2006		1/25/2006		1/25/2006		1/26/2006	
QC Code		FS		FS		FS		FS		FS		FS	
Paramater	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,2-Trichloroethane	1	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	5	10	U	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	5	10	U	10	U	10	U	10	U	10	U	10	U
Ethyl benzene	5	10	U	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	5	10	U	10	U	10	U	10	U	10	U	10	U
Methyl cyclohexane	NA	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	5	**11**		**2.1**	**J**	**0.93**	**J**	**0.88**	**J**	**0.74**	**J**	**15**	
Toluene	5	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	5	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	5	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	2	10	U	10	U	10	U	10	U	10	U	10	UJ
Xylene, m/p	5	10	U	10	U	10	U	10	U	10	U	10	U

Notes:

Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.

Results in microgram per liter (µg/L). Detections are shown in bold.

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the reporting limit

J = Estimated value

D = Result reported from a diluted analytical run

Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).

All Criteria listed are New York State Groundwater Standards.

Highlighted results exceed associated criteria

Table 4.2: Groundwater VOC Results

Loc Name		GW-4		GW-4		GW-5		GW-5		GW-5		GW-6	
Field Sample Id		CRGW00402001XB		CRGW00403001XX		CRGW00501601XA		CRGW00501601XD		CRGW00502601XX		CRGW00601401XA	
Sample Depth (ft bgs)		20		30		16		16		26		14	
Field Sample Date		1/26/2006		1/26/2006		1/25/2006		1/25/2006		1/25/2006		1/25/2006	
QC Code		FS		FS		FS		FD		FS		FS	
Paramater	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,2-Trichloroethane	1*	10	U	**3.9**	**J**	10	U	10	UJ	10	U	10	U
1,1-Dichloroethene	5*	10	U	10	U	10	U	10	UJ	10	U	10	U
Cis-1,2-Dichloroethene	5*	10	U	10	U	**1.8**	**J**	**2.1**	**J**	10	U	10	U
Ethyl benzene	5*	10	U	10	U	10	U	10	UJ	10	U	10	U
Isopropylbenzene	5*	10	U	10	U	10	U	10	UJ	10	U	10	U
Methyl cyclohexane	NA	10	U	10	U	10	U	10	UJ	10	U	10	U
Tetrachloroethene	5*	**15**		**610**	**D**	**5.5**	**J**	**5.4**	**J**	**3**	**J**	**7.9**	**J**
Toluene	5*	10	U	10	U	10	U	10	UJ	10	U	10	U
trans-1,2-Dichloroethene	5*	10	U	10	U	10	U	10	UJ	10	U	10	U
Trichloroethene	5*	10	U	10	U	**0.57**	**J**	10	UJ	10	U	10	U
Vinyl chloride	2*	10	UJ	10	U	10	U	10	UJ	10	U	10	U
Xylene, m/p	5*	10	U	10	U	10	U	10	UJ	10	U	10	U

Notes:

Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.

Results in microgram per liter (µg/L). Detections are shown in bold.

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the reporting limit

J = Estimated value

D = Result reported from a diluted analytical run

Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).

* = New York State Standard

Highlighted results exceed associated criteria

Table 4.2: Groundwater VOC Results

Loc Name		GW-6		GW-7		GW-7		GW-7		GW-8		GW-8	
Field Sample Id		CRGW00602201XX		CRGW00702201XA		CRGW00703401XD		CRGW00703401XX		CRGW00802501XA		CRGW00803701XX	
Sample Depth (ft bgs)		22		22		34		34		25		37	
Field Sample Date		1/25/2006		1/24/2006		1/24/2006		1/24/2006		1/23/2006		1/23/2006	
QC Code		FS		FS		FD		FS		FS		FS	
Paramater	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,2-Trichloroethane	1*	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	5*	10	U	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	5*	10	U	**1.5**	**J**	10	U	**0.53**	**J**	**3.6**	**J**	**0.85**	**J**
Ethyl benzene	5*	10	U	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	5*	10	U	10	U	10	U	10	U	10	U	10	U
Methyl cyclohexane	NA	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	5*	**4.1**	**J**	**110**		**200**	**D**	**230**	**D**	**24**		**130**	
Toluene	5*	**0.55**	**J**	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	5*	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	5*	10	U	**1.4**	**J**	1.3	J	1.5	J	0.93	J	10	U
Vinyl chloride	2*	10	U	10	UJ	10	U	10	U	10	UJ	10	UJ
Xylene, m/p	5*	10	U	10	U	10	U	10	U	10	U	10	U

Notes:

Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.

Results in microgram per liter (µg/L). Detections are shown in bold.

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the reporting limit

J = Estimated value

D = Result reported from a diluted analytical run

Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).

* = New York State Standard

Highlighted results exceed associated criteria

Table 4.2: Groundwater VOC Results

Loc Name		GW-9		GW-9		GW-10		GW-11		GW-11		GW-12	
Field Sample Id		CRGW00901401XA		CRGW00902201XX		CRGW01002601XX		CRGW01102201XA		CRGW01103001XX		CRGW01202201XA	
Sample Depth (ft bgs)		14		22		26		22		30		22	
Field Sample Date		1/25/2006		1/25/2006		1/24/2006		1/24/2006		1/24/2006		1/23/2006	
QC Code		FS		FS		FS		FS		FS		FS	
Paramater	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,2-Trichloroethane	1*	10	U	10	U	10	U	10	U	10	U	10	UJ
1,1-Dichloroethene	5*	10	U	10	U	10	U	10	U	10	U	10	UJ
Cis-1,2-Dichloroethene	5*	10	U	**2.8**	**J**	**7.2**	**J**	10	U	10	U	**5.5**	**J**
Ethyl benzene	5*	10	U	10	U	2.8	J	10	U	10	U	10	UJ
Isopropylbenzene	5*	10	U	10	U	1.8	J	10	U	10	U	10	UJ
Methyl cyclohexane	NA	10	U	10	U	4.4	J	10	U	10	U	10	UJ
Tetrachloroethene	5*	**74**	**J**	**280**	**DJ**	**27**		**9.7**	**J**	**0.84**	**J**	**42**	**J**
Toluene	5*	10	U	10	U	10	U	10	U	10	U	10	UJ
trans-1,2-Dichloroethene	5*	10	U	10	U	10	U	10	U	10	U	10	UJ
Trichloroethene	5*	**1.9**	**J**	**11**		**4.4**	**J**	10	U	10	U	**5**	**J**
Vinyl chloride	2*	10	U	10	U	10	U	10	UJ	10	U	10	UJ
Xylene, m/p	5*	10	U	10	U	**2.4**	**J**	10	U	10	U	10	UJ

Notes:

Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.

Results in microgram per liter (µg/L). Detections are shown in bold.

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the reporting limit

J = Estimated value

D = Result reported from a diluted analytical run

Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).

* = New York State Standard

Highlighted results exceed associated criteria

Table 4.2: Groundwater VOC Results

Loc Name		GW-12		GW-13		GW-13		GW-14		GW-14		GW-15	
Field Sample Id		CRGW01203401XX		CRGW01301701XA		CRGW01302501XX		CRGW01402201XA		CRGW01403001XX		CRGW01502101XA	
Sample Depth (ft bgs)		34		17		25		22		30		21	
Field Sample Date		1/23/2006		1/24/2006		1/24/2006		1/23/2006		1/23/2006		1/23/2006	
QC Code		FS		FS		FS		FS		FS		FS	
Paramater	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,2-Trichloroethane	1*	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ
1,1-Dichloroethene	5*	10	U	**1.6**	**J**	**1**	**J**	10	UJ	10	UJ	10	UJ
Cis-1,2-Dichloroethene	5*	**25**		**580**	**D**	**440**	**D**	**2.2**	**J**	**5.2**	**J**	**7**	**J**
Ethyl benzene	5*	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ
Isopropylbenzene	5*	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ
Methyl cyclohexane	NA	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ
Tetrachloroethene	5*	**210**	**DJ**	**820**	**D**	**390**	**D**	**3.4**	**J**	**13**	**J**	**65**	**J**
Toluene	5*	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ
trans-1,2-Dichloroethene	5*	10	U	**6.3**	**J**	**6.5**	**J**	10	UJ	10	UJ	10	UJ
Trichloroethene	5*	**6.9**	**J**	**180**		**120**		10	UJ	**1.7**	**J**	**2.3**	**J**
Vinyl chloride	2*	10	UJ	**56**	**J**	**14**	**J**	10	UJ	10	UJ	10	UJ
Xylene, m/p	5*	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ

Notes:

Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.

Results in microgram per liter (µg/L). Detections are shown in bold.

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the reporting limit

J = Estimated value

D = Result reported from a diluted analytical run

Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).

* = New York State Standard

Highlighted results exceed associated criteria

Table 4.2: Groundwater VOC Results

	Loc Name	GW-15		GW-16		GW-16		GW-17		GW-17	
	Field Sample Id	CRGW01502501XX		CRGW01601701XA		CRGW01602101XX		CRGW01701601XA		CRGW01702001XX	
	Sample Depth (ft bgs)	25		17		21		16		20	
	Field Sample Date	1/23/2006		1/23/2006		1/23/2006		1/23/2006		1/23/2006	
	QC Code	FS		FS		FS		FS		FS	
Paramater	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,2-Trichloroethane	1*	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,1-Dichloroethene	5*	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Cis-1,2-Dichloroethene	5*	**8.3**	**J**	10	UJ	10	UJ	**3**	**J**	**3**	**J**
Ethyl benzene	5*	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Isopropylbenzene	5*	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Methyl cyclohexane	NA	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Tetrachloroethene	5*	**87**	**J**	**7.1**	**J**	**6.3**	**J**	**64**	**J**	**67**	**J**
Toluene	5*	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
trans-1,2-Dichloroethene	5*	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Trichloroethene	5*	**2.7**	**J**	10	UJ	10	UJ	**1.4**	**J**	**1.5**	**J**
Vinyl chloride	2*	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Xylene, m/p	5*	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ

Notes:

Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.

Results in microgram per liter (µg/L). Detections are shown in bold.

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the reporting limit

J = Estimated value

D = Result reported from a diluted analytical run

Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).

* = New York State Standard

Highlighted results exceed associated criteria

Table 4.3: Oct/Nov Groundwater Results

	Location	GW-18		GW-18		GW-19		GW-19		GW-20		GW-20	
	Sample Date	11/2/2006		11/2/2006		10/31/2006		10/31/2006		11/2/2006		11/2/2006	
	Sample ID	CRGW01802001XX		CRGW01803001XX		CRGW01901901XX		CRGW01902901XX		CRGW02001901XX		CRGW02002901XX	
	Sample Depth (ft bgs)	20		30		19		29		19		29	
	QC Code	FS		FS		FS		FS		FS		FS	
Parameter	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1-Dichloroethene	5	10	U	10	U	10	UJ	10	U	10	U	10	U
2-Butanone	50	50	UJ	50	UJ	50	U	50	U	50	UJ	50	UJ
Acetone	50	50	UJ	**40**	**J**	50	U	50	U	50	UJ	**14**	**J**
Benzene	1	10	U	**0.82**	**J**	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	5	10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane	NA	10	U	10	U	10	UJ	10	U	**0.97**	**J**	10	U
Ethyl benzene	5	10	U	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	5	10	U	10	U	10	U	10	U	10	U	10	U
Methyl cyclohexane	NA	10	U	10	U	10	U	10	U	**0.88**	**J**	10	U
o-Xylene	5	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	5	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	5	10	U	**1.1**	**J**	10	U	10	U	**0.99**	**J**	10	U
Trichloroethene	5	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	2	10	U	10	U	10	U	10	U	10	U	10	U
Xylene, m/p	5	10	U	10	U	10	U	10	U	**1.4**	**J**	10	U

Notes:
Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.
Results in microgram per liter (µg/L)
ft bgs = feet below ground surface
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Highlighted results in exceed associated criteria

Created By: ASZ 2/5/07
Checked By: CRS 2/8/07

Table 4.3: Oct/Nov Groundwater Results

Location		GW-21		GW-21		GW-22		GW-22		GW-23		GW-23	
Sample Date		11/1/2006		11/1/2006		11/1/2006		11/1/2006		11/2/2006		11/2/2006	
Sample ID		CRGW02101901XX		CRGW02102601XX		CRGW02201801XX		CRGW02202801XX		CRGW02301901XX		CRGW02302701XX	
Sample Depth (ft bgs)		19		26		18		28		19		27	
Qc Code		FS		FS		FS		FS		FS		FS	
Parameter	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1-Dichloroethene	5	10	U	10	U	10	U	10	U	10	UJ	10	UJ
2-Butanone	50	50	U	**2.4**	**J**	50	UJ	50	U	50	U	50	UJ
Acetone	50	50	U	50	U	50	UJ	50	U	50	U	50	UJ
Benzene	1	10	U	**1.1**	**J**	10	UJ	10	U	10	U	10	UJ
Cis-1,2-Dichloroethene	5	10	U	10	U	10	U	10	U	10	U	10	UJ
Cyclohexane	NA	10	U	**1.6**	**J**	10	U	10	U	10	UJ	10	UJ
Ethyl benzene	5	10	U	10	U	10	U	10	U	10	U	10	UJ
Isopropylbenzene	5	10	U	10	U	10	U	10	U	10	U	10	UJ
Methyl cyclohexane	NA	10	U	**1.4**	**J**	10	UJ	10	U	10	U	10	UJ
o-Xylene	5	10	U	10	U	10	U	10	U	10	U	10	UJ
Tetrachloroethene	5	10	U	10	U	10	U	10	U	10	U	**3.2**	**J**
Toluene	5	10	U	**1.7**	**J**	10	U	10	U	10	U	10	UJ
Trichloroethene	5	10	U	10	U	10	UJ	10	U	10	U	10	UJ
Vinyl chloride	2	10	U	10	U	10	U	10	U	10	UJ	10	UJ
Xylene, m/p	5	10	U	**0.95**	**J**	10	U	10	U	10	U	10	UJ

Notes:
Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.
Results in microgram per liter (µg/L)
ft bgs = feet below ground surface
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Highlighted results in exceed associated criteria

Created By: ASZ 2/5/07
Checked By: CRS 2/8/07

Table 4.3: Oct/Nov Groundwater Results

	Location	GW-24		GW-24		GW-25		GW-25		GW-25		GW-01	
	Sample Date	11/1/2006		11/1/2006		11/1/2006		11/1/2006		11/1/2006		11/1/2006	
	Sample ID	CRGW02401301XX		CRGW02402301XX		CRGW02501201XD		CRGW02501201XX		CRGW02502201XX		CRMW00102001XX	
	Sample Depth (ft bgs)	13		23		12		12		22		20	
	Qc Code	FS		FS		FD		FS		FS		FS	
Parameter	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1-Dichloroethene	5	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	U
Acetone	50	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	U
Benzene	1	10	U	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	5	10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane	NA	10	U	10	U	10	U	10	U	10	U	10	U
Ethyl benzene	5	10	U	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	5	10	U	10	U	10	U	10	U	10	U	10	U
Methyl cyclohexane	NA	10	U	10	U	10	U	10	U	10	U	10	U
o-Xylene	5	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	5	10	U	10	U	10	U	10	U	10	U	**6.6**	**J**
Toluene	5	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	5	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	2	10	U	10	U	10	U	10	U	10	U	10	U
Xylene, m/p	5	10	U	10	U	10	U	10	U	10	U	10	U

Notes:
Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.
Results in microgram per liter (µg/L)
ft bgs = feet below ground surface
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Highlighted results in exceed associated criteria

Created By: ASZ 2/5/07
Checked By: CRS 2/8/07

Table 4.3: Oct/Nov Groundwater Results

	Location	GW-05		GW-06		GW-10	
	Sample Date	11/1/2006		11/1/2006		11/1/2006	
	Sample ID	CRMW00501201XX		CRMW00601301XX		CRMW01001301XX	
	Sample Depth (ft bgs)	12		13		13	
	Qc Code	FS		FS		FS	
Parameter	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1-Dichloroethene	5	10	UJ	10	UJ	**4.7**	**J**
2-Butanone	50	50	U	50	U	50	U
Acetone	50	50	U	50	U	50	U
Benzene	1	10	U	10	U	10	U
Cis-1,2-Dichloroethene	5	**2**	**J**	10	U	**35**	
Cyclohexane	NA	10	UJ	10	UJ	38	
Ethyl benzene	5	10	U	10	U	**20**	
Isopropylbenzene	5	10	U	10	U	**13**	
Methyl cyclohexane	NA	10	U	10	U	**43**	
o-Xylene	5	10	U	10	U	**0.88**	**J**
Tetrachloroethene	5	**33**		**5**	**J**	**110**	
Toluene	5	10	U	10	U	10	U
Trichloroethene	5	**2.2**	**J**	10	U	**77**	
Vinyl chloride	2	10	U	10	U	**9**	**J**
Xylene, m/p	5	10	U	10	U	**7.1**	**J**

Notes:
Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.
Results in microgram per liter (µg/L)
ft bgs = feet below ground surface
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value
Criteria = Values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).
Highlighted results in exceed associated criteria

Created By: ASZ 2/5/07
Checked By: CRS 2/8/07

Table 4.4: Surfacewater VOC Results

	Location Name	SW-1		SW-2	
	Field Sample Id	CRSW00100001XX		CRSW00200001XX	
	Sample Depth (feet)	0-1		0-1	
	Field Sample Date	1/23/2006		1/23/2006	
	QC Code	FS		FS	
Paramater	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**
Cis-1,2-Dichloroethene	5	**88**		**1.2**	**J**
Tetrachloroethene	5	**17**		**8.1**	**J**
trans-1,2-Dichloroethene	5	**0.94**	**J**	10	U
Trichloroethene	5	**1.7**	**J**	10	U
Vinyl chloride	2	**3.2**	**J**	10	UJ

Notes:

Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method OLM04.2.

Results in microgram per liter (µg/L)

QC Code:

FS = Field Sample

Qualifiers:

U = Not detected at a concentration greater than the reporting limit

J = Estimated value

Criteria = Samples collected from basement sumps and potentially representative of groundwater concentrations; therefore results comared to groundwater criteria.

Values from Technical and Operational Guidance Series (TOGS) 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (NYSDEC, 1998).

All Criteria listed are New York State Groundwater Standards.

Highlighted results exceed associated criteria

Table Created by: ASZ 6/1/06

Table Checked by: CRS 6/9/06

Table 4.5: Soil Vapor VOC Results

Location Name	GV-1		GV-2		GV-3		SV-1	
Field Sample ID	CRGV00100601XX		CRGV00200601XX		CRGV00300601XX		CRSV00100101XX	
Sample Depth (ft bgs)	6-7		6-7		6-7		1-2	
Field Sample Date	1/26/2006		1/26/2006		1/26/2006		1/26/2006	
QC Code	FS		FS		FS		FS	
Paramater	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,2-Trichloro-1,2,2-Trifluoroethane	**0.54**		0.76	U	0.76	U	3.06	U
1,2,4-Trimethylbenzene	**2.85**		**2.7**		**2.55**		1.96	U
1,3,5-Trimethylbenzene	0.49	U	0.49	U	**1.62**		1.96	U
2-Butanone	**20.2**		**16.5**		**14.3**		**3.65**	
2-Propanol	**39.4**		**25.5**		**26.2**		**8.83**	
4-Ethyltoluene	**0.59**		0.49	U	0.49	U	1.96	U
Acetone	**113**	**D**	**149**	**D**	**105**	**D**	**114**	**B**
Benzene	**5.33**	**J**	**6.38**		**3.57**		**13.7**	
Butadiene, 1,3-	**12**	**J**	**21.8**	**J**	**8.44**	**J**		R
Carbon disulfide	**1.31**		**1.55**		**0.9**		**3.36**	
Chloromethane	**1.66**		**1.55**		**1.25**		**1.23**	
Cyclohexane	0.34	U	0.34	U	0.34	U	**41.3**	
Dichlorodifluoromethane	**2.38**		**2.38**		**2.03**		**2.38**	
Ethyl acetate	**9.83**		**4.53**		**8.6**		**71.3**	
Ethyl benzene	**1.47**	**J**	**0.95**		**1.52**		1.73	U
Heptane	**1.76**		**2.17**		**1.68**		**71**	
Hexane	**2.92**		**5.38**		**2.67**		**111**	
Isooctane	**0.65**		**0.79**		**0.61**		1.87	U
Methylene chloride	0.7	U	**1.01**		0.7	U	2.78	U
o-Xylene	**1.17**	**J**	**0.82**		**0.74**		1.73	U
Propylene	**46.6**	**D**	**75.1**	**D**	**39.5**	**D**	0.69	U
Tetrachloroethene	**4.21**	**J**	**6.04**		**4.28**		**747**	**D**
Tetrahydrofuran	**0.44**		0.59	U	0.59	U	2.36	U
Toluene	**7.64**	**J**	**7.19**		**5.08**		**18.8**	
Trichloroethene	0.23	UJ	0.23	U	0.23	U	**30.2**	
Trichlorofluoromethane	**1.06**		**1.23**		**0.84**		2.24	U
Xylene, m/p	**3.08**	**J**	**2.08**		**1.82**		3.47	U

Notes:

Only Detected Compounds shown. Samples analyzed for VOCs by USEPA Method TO-15.

Results in microgram per cubic meter ($\mu g/m^3$). Detections are shown in bold.

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

Qualifiers:

U = Not detected at a concentration greater than the reporting limit

J = Estimated value

D = Result is reported from a diluted analytical run

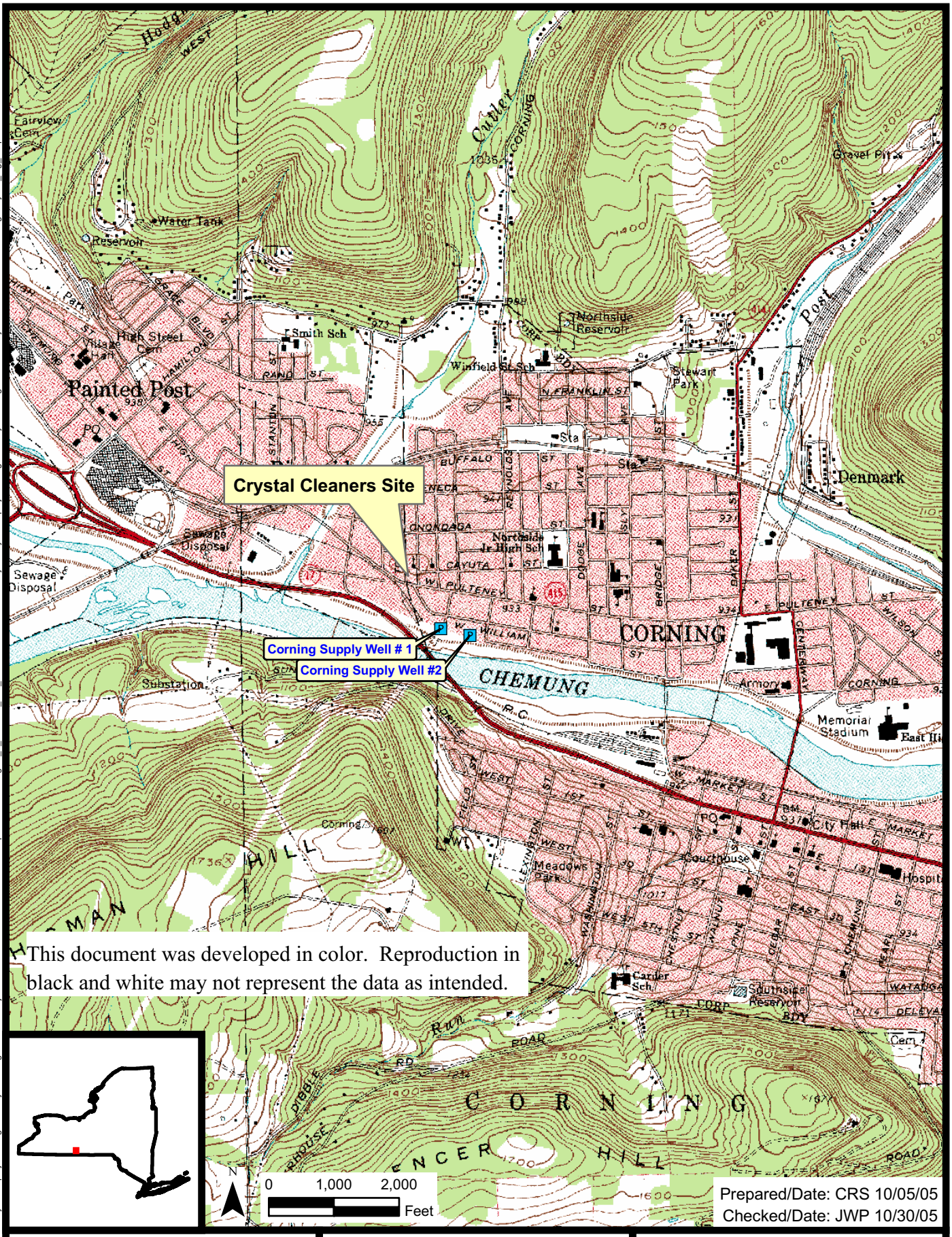
R = Result was rejected

B = Analyte was detected in both the blank and field sample

Table Created by: ASZ 6/1/06

Table Checked by: CRS 6/9/06

FIGURES



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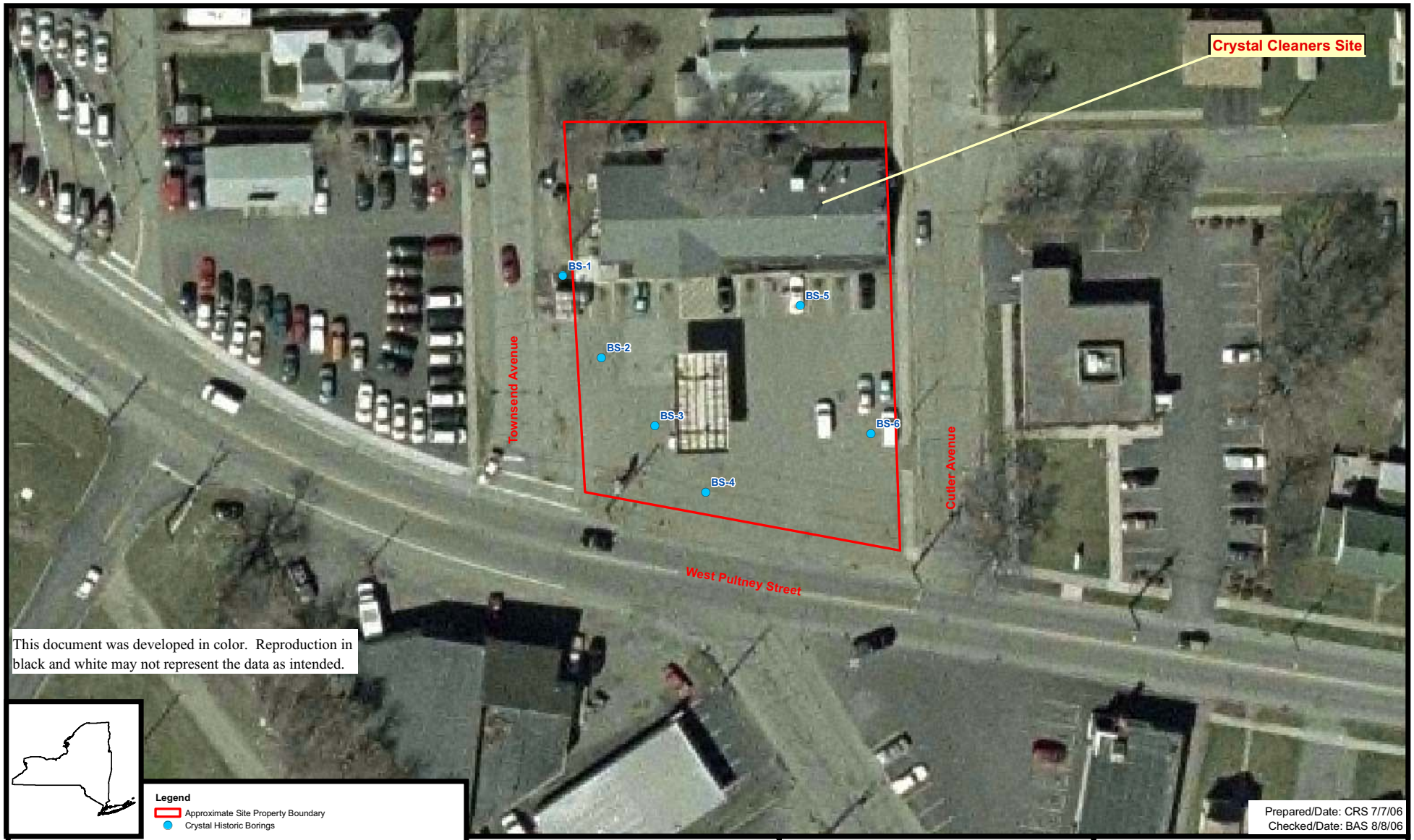
Prepared/Date: CRS 10/05/05
Checked/Date: JWP 10/30/05

NYSDEC
Crystal Cleaners Site
Corning, New York

MACTEC

Site Location
Project 3612052036
Figure 1.1



This document was developed in color. Reproduction in black and white may not represent the data as intended.

Legend

- Approximate Site Property Boundary
- Crystal Historic Borings

N

0 20 40 Feet

Notes:
Borings completed by Teeter Environmental Services, Inc. on April 21, 2005.
2002 Aerial Photo from NYS GIS Clearinghouse.

NYSDEC
Crystal Cleaners Site
Corning, New York

MACTEC

Historic Sample Locations

Project 3612052036 Figure 2.1

Prepared/Date: CRS 7/7/06
Checked/Date: BAS 8/8/06

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NYSDEC
Crystal Cleaners Site
Corning, New York

MACTEC

Sample Locations

Project 3612052036 Figure 3.1

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NYSDEC
Crystal Cleaners Site
Corning, New York

MACTEC

PCE Results in Groundwater

Project 3612052036 Figure 4.1

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GW-18
922.83

GW-19
923.18

GW-1
921.88

GW-10
NA

GW-6
922.23

GW-23
921.12

GW-5
922.73

Crystal Cleaners Site

Townsend Avenue

Cutler Avenue

West Pultney Street

Interpreted Groundwater
Flow Direction

This Figure was developed in color. Reproduction in
Black and White may not represent the data as intended.

Legend

- Approximate Site Property Boundary
- P Supply_Wells
- Microwell (water level)

N

0 50 100 Feet

Notes:
Water Levels collected by MACTEC 2/9/07.
2002 Aerial Photo from NYS GIS Clearinghouse.

NYSDEC
Crystal Cleaners Site
Corning, New York

MACTEC

Groundwater Elevations and Flow Direction

Project 3612052036 Figure 4.2

Prepared/Date: CRS 2/6/07
Checked/Date: JWP 2/9/07

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APPENDIX A

FACILITY INFORMATION REPORT AND PREVIOUS INVESTIGATIONS

PBS # : 8-390267

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Petroleum Bulk Storage Program
Facility Information Report

Printed : 2/16/2007

Site: SUGAR CREEK #132
343 WEST PULTENEY STREET
CORNING, NY 14830

Owner: WILSON FARMS INC
1780 WEHRLE DRIVE
WILLIAMSVILLE, NY 14221

(716) 204-4333

Owner Type : Corporate or Commercial

Mail: WILSON FARMS INC
1780 WEHRLE DRIVE
WILLIAMSVILLE, NY 14221

Town: Corning **County:** Steuben

Operator: WILSON FARMS INC (607) 962-5949

Emergency : RICHARD B HALL (716) 204-4333

Auth Rep: RICHARD B HALL

ATTN: RICHARD B HALL (716) 204-4333

Site Status : Active
Site Type: Retail Gasoline Sales
Total Active Tanks : 3
Active Capacity : 17,000

Reg Expires : 7/28/10
Cert Printed: 8/12/05

Last Inspected: 08/04/1999
Inspected By: W STEVENSON

SPDES #

CBS # :

(2) Tank No	(3) Tank Loc	(4) Status	(5) Date Install	(5) Date Closed	(6) Capacity (gals)	(7) Product	(8) Tank Type	(9) Tank IP	(10) Tank EP	(11) Tank SC	(12) Tank LD	(13) Tank OP	(14) Tank SP	(15) Tank Disp	(16) Pipe Loc	(17) Pipe Type	(18) Pipe EP	(19) Pipe SC	(20) Pipe LD	(21) Date Test	(21) Next Test
006	5	In Service	3/1/92		8,000	0009	06	03	04	04	02	01	01	01	02	08	99		07		
007	5	In Service	3/1/92		8,000	0009	06	03	04	04	02	01	01	01	02	08	99		07		
008	5	In Service	9/1/00		1,000	0012	06	03	04	04	02	02	01	02	02	06	00		09		
001	5	Closed - Removed	6/1/74	3/1/92	4,000	0009	01	00	00	00	00	00		02	02	02	00			2/1/92	
002	5	Closed - Removed	6/1/74	3/1/92	4,000	0009	01	00	00	00	00	00		02	02	02	00			10/1/86	
004	5	Closed - Removed	6/1/74	3/1/92	4,000	0009	01	00	00	00	00	00		02	02	02	00			10/1/86	
005	5	Closed - Removed	6/1/74	3/1/92	4,000	0009	01	00	00	00	00	00		02	02	02	00			2/1/92	
003	5	Closed - In Place	8/1/84	9/1/00	1,000	0012	01	00	07	00	00	00		02	02	02	00			4/1/97	

Action (1)
1. Initial Listing
2.Add Tank
3. Close/Remove Tank
4. Information Correction
5. Recondition/Repair/ Reline Tank

Tank Location (3)
1. Aboveground-contact w/soil
2. Aboveground-contact w/ impervious barrier
3.Aboveground on saddles, legs, stilts, rack, or cradle
4. Aboveground with 10% or more below ground
5. Underground
6. Underground, vaulted, with access

Status (4)
1. In-service
2. Temporarily out-of-service
3. Closed-Removed
4. Closed- In Place
5. Tank converted to Non-Regulated use

Product Stored (7)
0000. Empty
0001. #2 Fuel Oil
0002. #4 Fuel Oil
0003. #6 Fuel Oil
0011. Jet Fuel
0008. Diesel
0009. Gasoline
0012. Kerosene
0013. Lube Oil
0022. Waste/Used Oil
0259. #5 Fuel Oil
2642. Used Oil (Fuel)
9999. Other -please list :*

Tank Type (8)
01. Steel/Carbon Steel/Iron
02. Galvanized Steel Alloy
03. Stainless Steel Alloy
04. Fiberglass Coated Steel
05. Steel Tank in Concrete
06. Fiberglass Reinforced Plastic (FRP)
07. Plastic
08. Equivalent Technology
09. Concrete
10. Urethane Clad Steel
99. Other-please list:*

Internal Protection (9)
00. None
01. Epoxy Liner
02. Rubber Liner
03. Fiberglass Liner (FRP)
04. Glass Liner
99. Other-please list:*

External Protection (10/18)
00. None
01. Painted/Asphalt Coating
02. Original Sacrificial Anode
03. Original Impressed Current
04. Fiberglass
05. Jacketed
06. Wrapped (Piping)
07. Retrofitted Sacrificial Anode
08. Retrofitted Impressed Current
09. Urethane
99. Other-please list:*

Tank Leak Detection (12)
00 None
01.Interstitial Electronic Monitoring
02. Interstitial Manual Monitoring
03.Vapor Well
04. Groundwater Well
05. In-Tank System (ATG)
06. Impervious Barrier/Concrete Pad (A/G)
99. Other-please list:*

Piping Type (17)
00. None
01. Steel/Carbon Steel/Iron
02. Galvanized Steel
03. Stainless Steel Alloy
04. Fiberglass Coated Steel
05. Steel Encased in Concrete
06. Fiberglass Reinforced Plastic (FRP)
07. Plastic
08. Equivalent Technology
09. Concrete
10. Copper
11. Flexible Piping
99. Other-please list:*

Overfill Prevention(13)
00. None
01. Float Vent Valve
02.High Level Alarm
03. Automatic Shut-off
04. Product Level Gauge(A/G)
05. Vent Whistle
99. Other-please list:*

Secondary Containment (11/19)
00. None
01. Diking (A/G)
02. Vault (w/access)
03. Vault (w/o access)
04. Double-Walled (U/G)
05. Synthetic Liner
06. Remote Impounding Area
07. Excavation/Trench Liner System
08. Flexible Internal Liner (Bladder)
09. Modified Double-Walled (A/G)
10. Impervious Underlayment
11. Double Bottom (A/G)
99. Other-please list:*

Spill Prevention (14)
00. None
01. Catch Basin
02. Transfer Station Containment
99. Other - Please list*

Piping Location (16)
00. No Piping
01. Aboveground
02. Underground/On-ground
03. Aboveground/Underground Combination

Pipe Leak Detection (20)
00. None
01. Interstitial Electronic Monitoring
02. Interstitial Manual Monitoring
03. Vapor Well
04. Groundwater Well
07. Pressurized Piping Leak Detector
08. Tank Top Sump (Piping)
09. Exempt Suction Piping
99. Other-please list:*

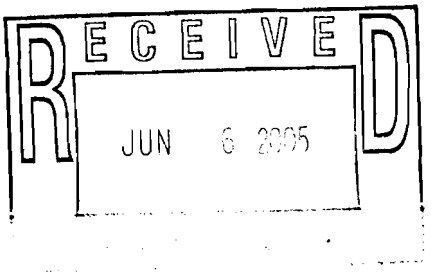
Dispenser (15)
00. None
01. Submersible
02. Suction
03. Gravity

*** If other, please list on a separate sheet including Tank Number**

TEETER Environmental Services, Inc.

RR#1 Box 124B · North Macfee Road · Sayre, PA 18840
Phone: 570.247.7693 · Fax: 570.247.7083

Phase II Environmental Site Assessment Report



PHASE II ENVIRONMENTAL SITE ASSESSMENT

Sugar Creek and Crystal Cleaners
343 West Pulteney Street
Corning, New York 14830

SUBMITTED TO:

Mr. Donald Stiker
12 Tuscarora Road
Addison, New York 14801
OR
5 PARK PLACE
ADDISON, N.Y. 14801

PREPARED BY:

Teeter Environmental Services, Inc.

David J. Teeter
President

May 25, 2005

TABLE OF CONTENTS

TABLES

APPENDICES

I. AUTHORIZATION

Teeter Environmental Services, Inc. was authorized by Mr. Donald Stiker, 12 Tuscarora Road, Addison, New York to perform a Phase II Environmental Site Assessment (ESA) of the property located at 343 West Pulteney Street, Corning, New York. Mr. Stiker owns the property and leases it to retail and commercial interests. The ESA was performed on April 21, 2005.

II. OBJECTIVE

The objective of the ESA was to determine if subsurface soil and groundwater were impacted with petroleum and solvent-type hydrocarbons originating from historical usage of property as a service station and a dry cleaning operation. Currently, a Sugar Creek convenience store and Crystal Cleaners occupy the site. Sugar Creek also retails gasoline and kerosene.

III. SCOPE OF WORK

The following tasks were performed:

- Completed six (6) soil borings to a maximum depth of 16 feet below ground surface using a Geoprobe® direct-push soil sampling rig.
- Obtained soil samples at continuous four (4) foot intervals, observed each for evidence of petroleum impact, characterized lithologically, screened for volatile organic compounds (VOC's) using an organic vapor meter (OVM), and containerized for potential laboratory analysis.
- Submitted groundwater samples from four (4) of the borings for laboratory analysis. Two (2) samples were analyzed for the New York State Department of Environmental Conservation (NYSDEC) short list of regulated compounds for gasoline releases using EPA Method 8260B, STARS list, two (2) samples were analyzed for the NYSDEC short list of regulated compound for fuel oil releases using EPA Method 8270C, STARS list, and two (2) samples were analyzed using EPA Method 8260B full list which includes chlorinated hydrocarbons.
- Prepared the following report of the findings.

IV. SITE DESCRIPTION

The site is located in a mixed commercial and residential area near the western boundary of the city of Corning, New York. The property is generally square with the north and west boundaries approximately 150 feet in length. The east property line is slightly longer.

One single story block building oriented east-west is located at the north end of the site. The building is 128 feet long and 40 feet wide and is separated into three sections to facilitate three tenants. The Sugar Creek convenience store occupies the west side of building. Crystal Cleaners dry cleaning operation is located to the east of Sugar Creek and the third and smaller section of the building at the east end is currently vacant. A laundromat most recently occupied that part of the building. Dry cleaning businesses have apparently been on-site since 1972.

A 6,000-gallon underground storage tank (UST) containing kerosene is located at the southwest corner of the building. The kerosene dispenser is also located at southwest corner off the pavement and up against the wall. The gasoline fuel dispensers are located near the center of the site beneath a free standing canopy. The area beneath the canopy is paved with concrete. Two 8,000-gallon UST's containing the gasoline are situated to the west of the dispensers. Other than beneath the canopy and the concrete protective pads over the UST's, most of the site is paved with asphalt. The area immediately west of the building is grass.

Adjacent properties include residences to the north, northeast, and northwest, Community Bank N.A. to the east across Cutler Avenue, Fazzary Wine & Liquor to southeast across West Pulteney Street, Ontario Carpet and Southern Glass Service to the southwest across West Pulteney Street, and Deck's Auto used car sales to the west across Townsend Avenue.

Refer to Figure 1 in Appendix A for a site map, Figure 2 for map of the area, and Figure 3 for an aerial photographic view of the site and surrounding properties.

V. METHODS OF INVESTIGATION

A. Soil Sampling and Analysis

Chambers Environmental Group, Inc., Bellefonte, Pennsylvania was contracted to perform the borings under the supervision of David Teeter of Teeter Environmental Services, Inc. The soil borings were completed using a Geoprobe® Model 540UD direct-push soil probing rig. Soil samples were obtained by advancing a two (2) inch diameter steel drive point attached to steel drive rods into the subsurface with a diesel-powered percussion hammer. At the desired depth, the point was retracted leaving a two (2) inch diameter open borehole. A two-inch diameter, 48-inch long hollow steel sampling tube with an acetate liner was then attached to the drive rods, set to the bottom of the borehole, and driven the length of the tube. After retrieving the soil core, the drive point was reinserted into the boring and advanced to the next desired sample depth.

Samples were obtained to maximum depth of 16 feet. All soil samples were observed for petroleum impact (sheen, discoloration, odor, etc.) and characterized lithologically. The samples were placed in airtight containers to allow vapors to accumulate in the headspace. The headspace was then screened for VOC's, expressed in parts per million (ppm), using a ThermoEnvironmental Model 580B organic vapor meter (OVM). Since groundwater was encountered and could be sampled, soil samples were not submitted for laboratory analysis.

Refer to Figure 1 in Appendix A for soil boring locations.

B. Groundwater Sampling and Analysis

Groundwater was obtained from temporary small diameter PVC wells installed in four of the boreholes. The samples were collected by inserting 3/8-inch tubing connected to a Geotech 2 peristaltic pump. Groundwater was pumped out of the wells for a short period of time to reduce turbidity. Samples were then containerized in 40-milliliter zero-headspace vials preserved with hydrochloric acid and packed in an ice-filled cooler. Samples from two borings were also contained one liter amber bottles. The samples were submitted to Eastern Laboratory Services Ltd., South Waverly, PA NYS Laboratory ID #11216) for analysis. Samples contained in the vials from two borings analyzed for the NYSDEC short list of regulated compounds for gasoline releases using EPA Method 8260B, STARS list and samples contained in the vials from two additional boring were analyzed using EPA Method 8260B full list which includes chlorinated hydrocarbons. The samples contained in the amber bottles were analyzed for NYSDEC short list of regulated compound for fuel oil releases using EPA Method 8270C, STARS list.

VI. RESULTS

A. General Hydrogeology

The site lies within the Chemung River valley at an approximate elevation of 930 feet above mean sea level. The area specific to the site is topographically flat with steep bedrock hills located about ¾-mile to the north and ¼-mile to the south. The Chemung River lies approximately 1,000 feet to the south of the site and flows to the east.

Based on characterization of soil samples from the six borings completed, five of which were advanced to 16 feet and one to 12 feet, surficial geology (unconsolidated material) varies somewhat throughout the site horizontally and vertically. In general, there are two prevailing soil mixtures: brown and reddish brown sand and rounded gravel with lesser amounts of silt and brown and reddish brown silt with lesser amounts of rounded gravel with little sand.

Clayey silt was evident in samples from some boring generally from a depth of 4 to 8 feet. The sand and gravel fractions were fairly loose while the predominantly silty soils were more dense. The site lies in a valley-fill aquifer system where much of the surficial geology consists of outwash sand and gravel deposited by receding glaciers. However, the observed characteristics of the soil samples, namely the silt content and poorly sorted coarser material intermixed suggest an alluvial (stream or river) depositional environment. This is understandable due to the site's proximity to the Chemung River which invariably has meandered throughout the last several thousand years. The clayey silt soils may even represent a lacustrine (lake, lagoon, or swamp) depositional environment where perhaps the river meandered a considerable distance from the site. Some organics (micro roots) were observed in samples from one boring. The roundness of the gravel, however, indicates that running water was responsible for most of the deposition of soils. The variability of grain sizes and matrices is common in glacial and allviual depositional environments.

Depth to groundwater as evidenced by the moisture content of the soil ranged from 10 to 12 feet in most borings. Direction of groundwater flow is almost certainly to the south or southeast toward and with the flow of the Chemung River. It is unusual for groundwater to flow against the direction of major flowing surface water. Horizontal and vertical groundwater flow velocity will likely vary as it will move more readily through the looser and coarser grained soils.

Bedrock was not encountered during the ESA to the maximum boring depth of 16 feet. Bedrock in the area consists of Upper Devonian age Gardeau Formation shales and siltstones of the West Falls Group (Rickard and Fisher, 1970).

Refer to Appendix B for subsurface logs containing lithologic characterization for each sample interval. A topographic map is included as Figure 4 in Appendix A.

B. Soil Quality

Six borings were completed throughout the site adjacent to and/or hydraulically downgradient of potential sources of contaminant releases including the UST's, fuel dispensers, and the dry cleaning shop. Boring locations are indicated on Figure 1 in Appendix A. The intent was to advance the borings until groundwater was encountered or until any contamination had been vertically delineated. In all, 23 soil samples were collected from borings advanced to a depth of 16 feet. Groundwater was generally encountered at a depth of approximately 10 to 12 feet.

No evidence of petroleum or solvent impact such as odor, sheen, discoloration, or separate phase product was observed in any of the samples. All OVM were zero (0) parts per million (ppm) indicating the lack of volatile or semi-volatile vapors in the unsaturated and saturated soils.

Because there was no evidence of contamination, no soil samples were submitted for laboratory analysis.

Refer to Table 1 for a summary of the sampling intervals, OVM readings, and observations.

Table 1

Field Screening and Observations

April 21, 2005

Boring ID	Sampling Interval (feet)	OVM Reading (ppm)	Observations
B1	0-4	0	No observed impact
	4-8	0	No observed impact
	8-12	0	No observed impact
	12-16	0	No observed impact
B2	0-4	0	No observed impact
	4-8	0	No observed impact
	8-12	0	No observed impact
	12-16	0	No observed impact
B3	0-4	0	No observed impact
	4-8	0	No observed impact
	8-12	0	No observed impact
	12-16	0	No observed impact
B4	0-4	0	No observed impact
	4-8	0	No observed impact
	8-12	0	No observed impact
	12-16	0	No observed impact
B5	0-4	0	No observed impact
	4-8	0	No observed impact
	8-12	0	No observed impact
	12-16	0	No observed impact
B6	0-4	0	No observed impact
	4-8	0	No observed impact
	8-12	0	No observed impact

C. Groundwater Quality

Groundwater samples were obtained from B1 near the kerosene UST, B3 downgradient of the gasoline UST's and adjacent to the gasoline dispensers, B4 downgradient of the gasoline dispensers, and B5 near and downgradient of Crystal Cleaners. B4 may also be considered downgradient of Crystal Cleaners. The samples from B1 and B3 were analyzed for the NYSDEC short list (STARS list) of volatile petroleum hydrocarbons which target compounds specifically regulated for gasoline releases.

The samples were also analyzed for the NYSDEC short list of semi-volatile petroleum hydrocarbons which target compounds specifically regulated for fuel oil and kerosene releases. Although B1 is hydraulically upgradient of the gasoline UST's, NYSDEC requires that samples tested for semi-volatiles also be analyzed for volatile hydrocarbons as there are some volatile constituents in fuel oils. Samples from B4 and B5 were analyzed for the full EPA Method 8260B compound list which includes chlorinated or solvent-type hydrocarbons. Two in particular, tetrachlorethene (PCE) and trichloroethene (TCE), have historically been used in the dry cleaning industry as primary cleaning agents.

As summarized in Table 2, naphthalene, toluene, and m,p-xylenes were detected in the sample from B1 at concentrations slightly above the applicable regulatory standards. Only naphthalene was detected in the sample from B3 at a concentration below the regulatory standard of 10 micrograms per liter (µg/l). Naphthalene was also evident in the sample from B4 at a level below the regulatory standard. Naphthalene is actually a semi-volatile hydrocarbon that is also a constituent of gasoline. PCE was detected in the sample from B5 at a concentration barely exceeding the regulatory standard of 5 micrograms per liter (µg/l). PCE was also found in the sample from B4 at higher concentration of 43.1 µg/l.

Table 2 contains the full EPA STARS list of target compounds. Since the complete EPA Method 8260B list includes over 60 compounds, only the detected chlorinated hydrocarbon is included in the table. Refer to Appendix C for a copy of the full analytical report which includes all target compounds. The detected hydrocarbon concentrations at each sampling point are illustrated on Figure 5 in Appendix A.

There were no semi-volatile hydrocarbons detected in either sample from B1 and B3 above the reporting limit of 10 µg/l, including naphthalene which also analyzed for the EPA 8270C method. All detections of naphthalene under the EPA 8260B method were below 10 µg/l with the exception of 29.7 µg/l in B1.

The analytical results for the semi-volatiles analysis are summarized in Table 3. A copy of the full laboratory report is included in Appendix C.

Table 2

Laboratory Analytical Summary
Volatile Hydrocarbons and MTBE in Groundwater
by EPA Method 8260B STARS and 8260B full list (µg/l)

April 21, 2005

Compound	B1	B3	B4*	B5*	NYSDEC Standard
Benzene	ND<5.00	ND<5.00	ND<5.00	ND<5.00	1
n-Butylbenzene	ND<5.00	ND<5.00	ND<5.00	ND<5.00	5
sec-Butylbenzene	ND<5.00	ND<5.00	ND<5.00	ND<5.00	5
Ethylbenzene	ND<5.00	ND<5.00	ND<5.00	ND<5.00	5
Isopropylbenzene	ND<5.00	ND<5.00	ND<5.00	ND<5.00	5
p-Isopropyltoluene	ND<5.00	ND<5.00	ND<5.00	ND<5.00	5
n-Propylbenzene	ND<5.00	ND<5.00	ND<5.00	ND<5.00	5
Naphthalene	**29.7**	**9.3**	**5.8**	ND<5.00	10
Toluene	**6.2**	ND<5.00	ND<5.00	ND<5.00	5
1,2,4-Trimethylbenzene	ND<5.00	ND<5.00	ND<5.00	ND<5.00	5
1,3,5-Trimethylbenzene	ND<5.00	ND<5.00	ND<5.00	ND<5.00	5
m,p-Xylenes	**5.2**	ND<5.00	ND<5.00	ND<5.00	5
o-Xylene	ND<5.00	ND<5.00	ND<5.00	ND<5.00	5
tert-Butylbenzene	ND<5.00	ND<5.00	ND<5.00	ND<5.00	5
MTBE	ND<5.00	ND<5.00	ND<5.00	ND<5.00	10
Total Detected	***41.1***	***9.3***	***48.9***	***7.0***	---
Tetrachloroethene (PCE)	ND<5.00	ND<5.00	**43.1**	**7.0**	5

*B1 and B3 analyzed using abbreviated compound list. B4 and B5 analyzed using full method compound list to include chlorinated hydrocarbons. Refer to the laboratory report for the complete list.

µg/l – micrograms per liter

ND – Not detected above the indicated reporting limit

Naphthalene is considered a semi-volatile compound

MTBE is a non-hydrocarbon gasoline additive

Table 3

Laboratory Analytical Summary
Semi-Volatile Aromatic Hydrocarbons in Groundwater
by EPA Method 8270C STARS (µg/l)

Compound	B1	B3	NYSDEC Standard
Naphthalene	ND<10.0	ND<10.0	10
Acenaphthene	ND<10.0	ND<10.0	20
Fluorene	ND<10.0	ND<10.0	50
Phenanthrene	ND<10.0	ND<10.0	50
Anthracene	ND<10.0	ND<10.0	50
Fluoranthene	ND<10.0	ND<10.0	50
Pyrene	ND<10.0	ND<10.0	50
Benzo(a)anthracene	ND<10.0	ND<10.0	0.002 or MDL
Chrysene	ND<10.0	ND<10.0	0.002 or MDL
Benzo (b) fluoranthene	ND<10.0	ND<10.0	0.002 or MDL
Benzo (k) fluoranthene	ND<10.0	ND<10.0	0.002 or MDL
Benzo (a) pyrene	ND<10.0	ND<10.0	0.002 or MDL
Indeno (1,2,3-cd) pyrene	ND<10.0	ND<10.0	0.002 or MDL
Dibenzo (a,h) anthracene	ND<10.0	ND<10.0	50
Benzo (g,h,i) perylene	ND<10.0	ND<10.0	0.002 or MDL
Total Detected	**ND**	**ND**	---

µg/l – micrograms per liter
ND – Not detected above the indicated reporting limit
MDL – Method detection limit

VII. SUMMARY and RECOMMENDATIONS

The Phase II ESA performed by Teeter Environmental Services, Inc. at 343 West Pulteney Street, Corning, New York yielded the following relevant information:

- The property is owned by Mr. Donald Stiker and is leased to parties operating businesses on-site. The single one-story building is divided into three sections with a Sugar Creek convenience store occupying the west part of the building and Crystal Cleaners, a dry cleaning operation, occupies the center section. The east portion of the building is currently vacant and was formerly used as a laundromat.

- Sugar Creek retails gasoline and kerosene. One (1) 6,000-gallon kerosene UST and two (2) 8,000-gallon gasoline UST's are located on-site. One kerosene dispenser is located adjacent to the kerosene tank. Gasoline fuel dispensers are situated near the center of the site under a free standing canopy.

- The site is located in a mixed residential and commercial area. There are no industrial operations adjacent to the site.

- Six (6) soil borings were advanced to a depth of 16 feet (12 feet in one boring) and were located near and hydraulically downgradient of potential sources of petroleum and chlorinated hydrocarbon releases including fuel dispensers, UST's, and the Crystal Cleaners facility. Four-foot soil core samples were obtained at continuous interval to the bottom of each borehole.

- Surficial geology varies horizontally and vertically and generally consists of brown and reddish brown gravelly silt with varying amounts of sand, sandy gravel with little silt, and clayey silt with some sand and gravel. The gravel is rounded and the variations in soil characteristics suggest an alluvial (river) depositional environment. The Chemung River is located approximately 1,000 feet south of the site.

- Depth to groundwater is approximately 10 to 12 feet below ground surface and most likely flows to the south or southeast toward the eastward flowing Chemung River.

- There was no evidence of petroleum or solvent impact such as odor, discoloration, sheen, or separate product in any of the soil samples. All OVM readings were zero (0) parts per million. As such, no soil samples were submitted for laboratory analysis.

- Groundwater samples from four (4) boring were submitted for laboratory analysis. Of the petroleum hydrocarbons, naphthalene was detected in samples from B1, B3, and B4. The concentration of 29.7 micrograms per liter (µg/l) in B1 was slightly above the regulatory standard of 10 µg/l. Xylenes and toluene were also detected in B1 at concentrations of 5.2 µg/l and 6.2 µg/l, respectively, barely exceeding the 5 µg/l standard.

- Groundwater samples from B4 and B5 were also analyzed for chlorinated hydrocarbons. Tetrachloroethene (PCE), commonly used in the dry cleaning industry, was detected at concentrations of 43.1 µg/l and 7.0 µg/l, respectively. The regulatory standard is 5 µg/l.

It is clear that mass contamination due to petroleum or solvent releases has not occurred at the site. The concentrations of detected compounds exceeding regulatory standards did not do so by a large margin. Nonetheless, because there were exceedences in the standards, it is required that the results of the ESA be submitted to NYSDEC. NYSDEC may require additional investigation. Otherwise, no additional action is recommended pending review by NYSDEC.

VIII. LIMITATIONS

This report is based on a limited number of soil and groundwater samples and chemical analyses. The conclusions presented in this report are based only on the observations made during this investigation.

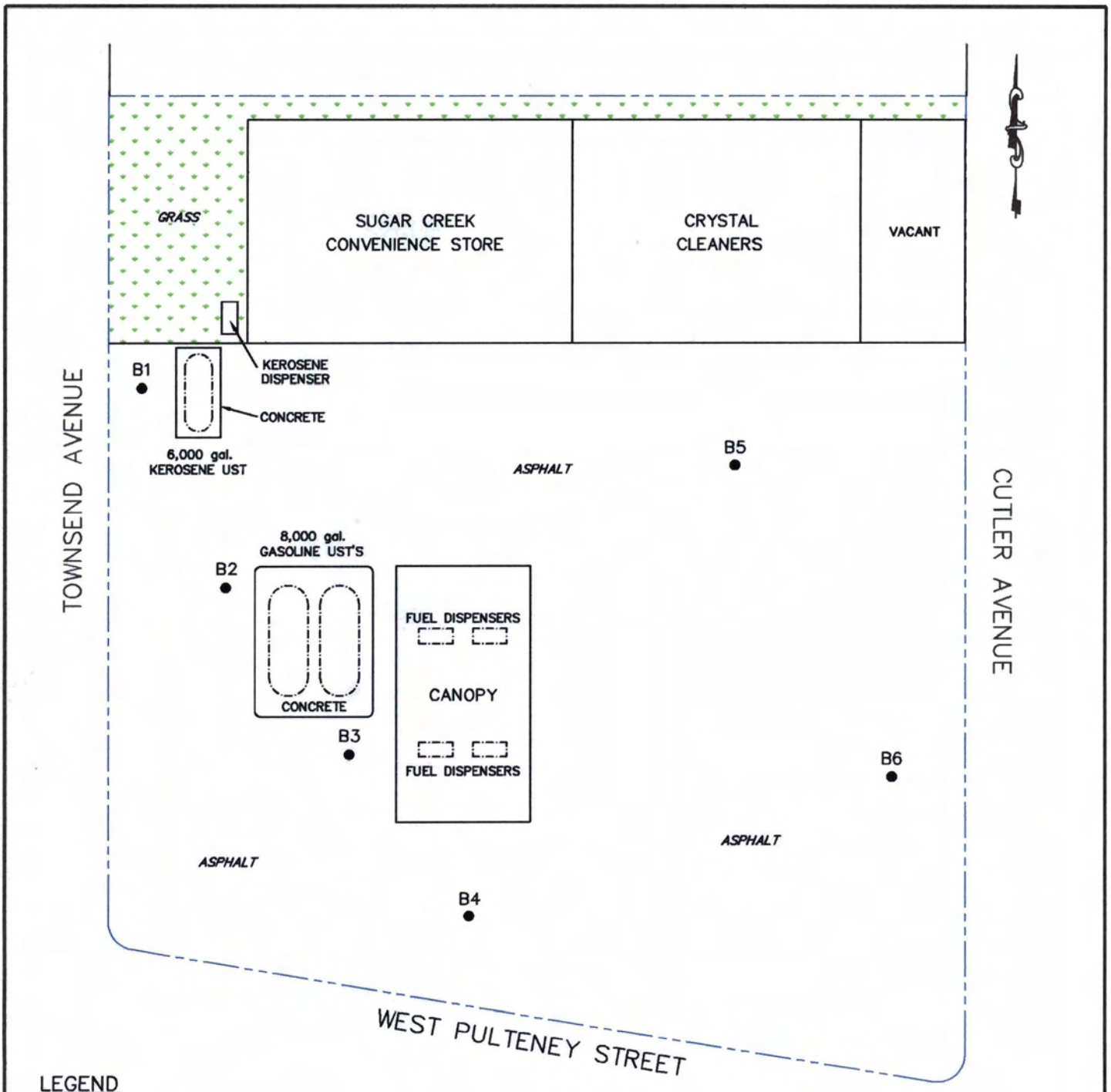
The report presents a description of the subsurface conditions observed at each boring location during this investigation. Conclusions and recommendations set forth are applicable only to the facts and conditions at the time of this investigation.

In performing professional services, Teeter Environmental uses the degree of care and skill exercised under similar circumstances by members of the environmental profession practicing in the same or similar locality under similar conditions. The standard of care shall be judged exclusively as of the time these services are rendered and not according to later standards. Teeter Environmental makes no express or implied warranty beyond its conformance to this standard.

Teeter Environmental shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed for this report. Teeter Environmental believes that all information contained in this report is factual, however no guarantee is made or implied.

APPENDIX A

FIGURES



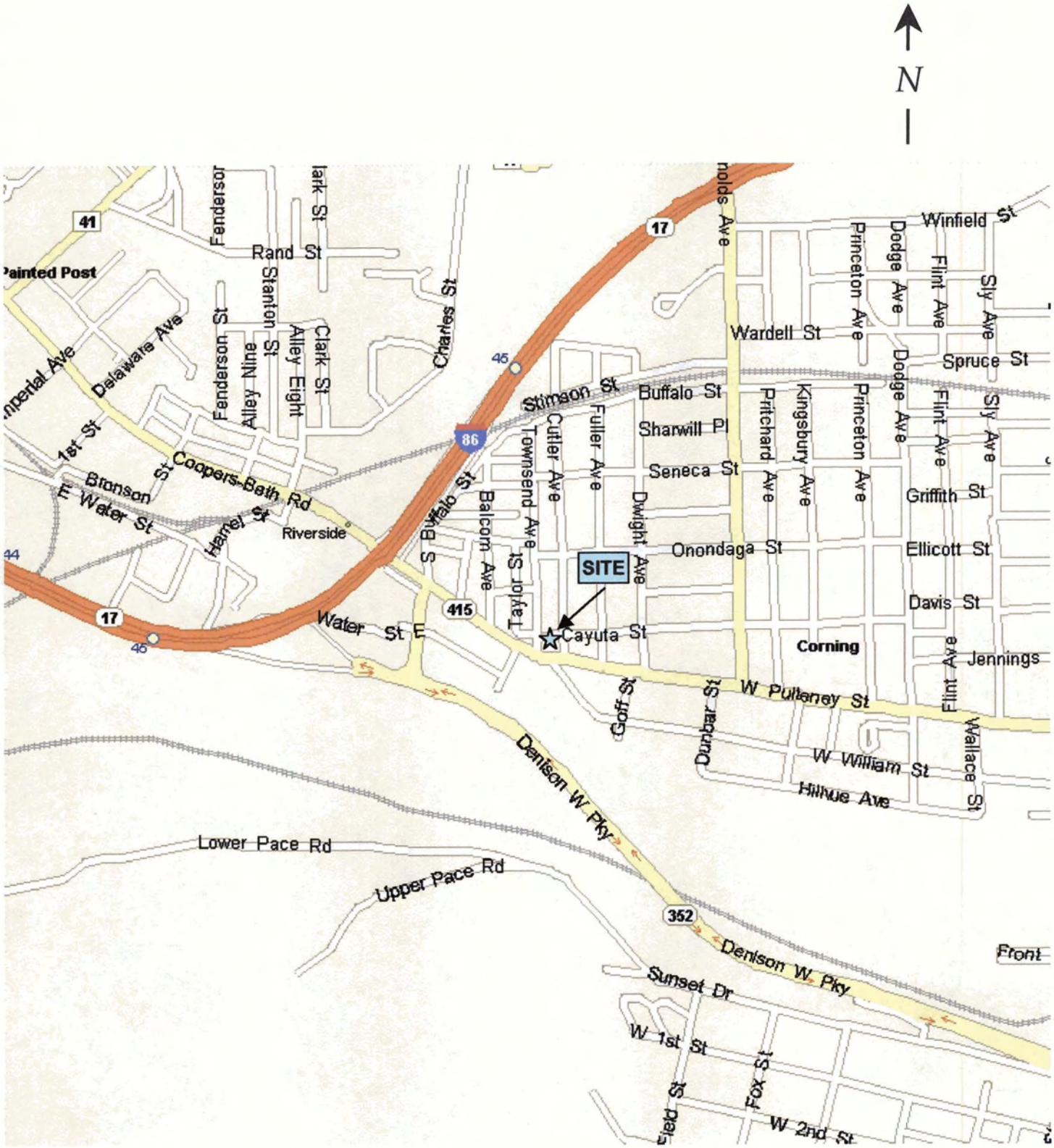
SCALE 1" = 25'	0 25	
DRAWN BY	C. Treese	5/25/05
CHECKED BY	D. Teeter	5/25/05
REVISED BY	C. Treese	5/25/05
APPROVED BY	D. Teeter	5/25/05

Teeter Environmental Services

SUGAR CREEK & CRYSTAL CLEANERS
343 WEST PULTENEY STREET
CORNING, NY 14830
prepared for:
MR. DONALD STIKER
12 TUSCARORA RD.
ADDISON, NY 14801

Figure 1

SITE MAP



Phase II ESA
Sugar Creek and Crystal Cleaners
343 West Pulteney Street
Corning, NY 14830
April 21, 2005

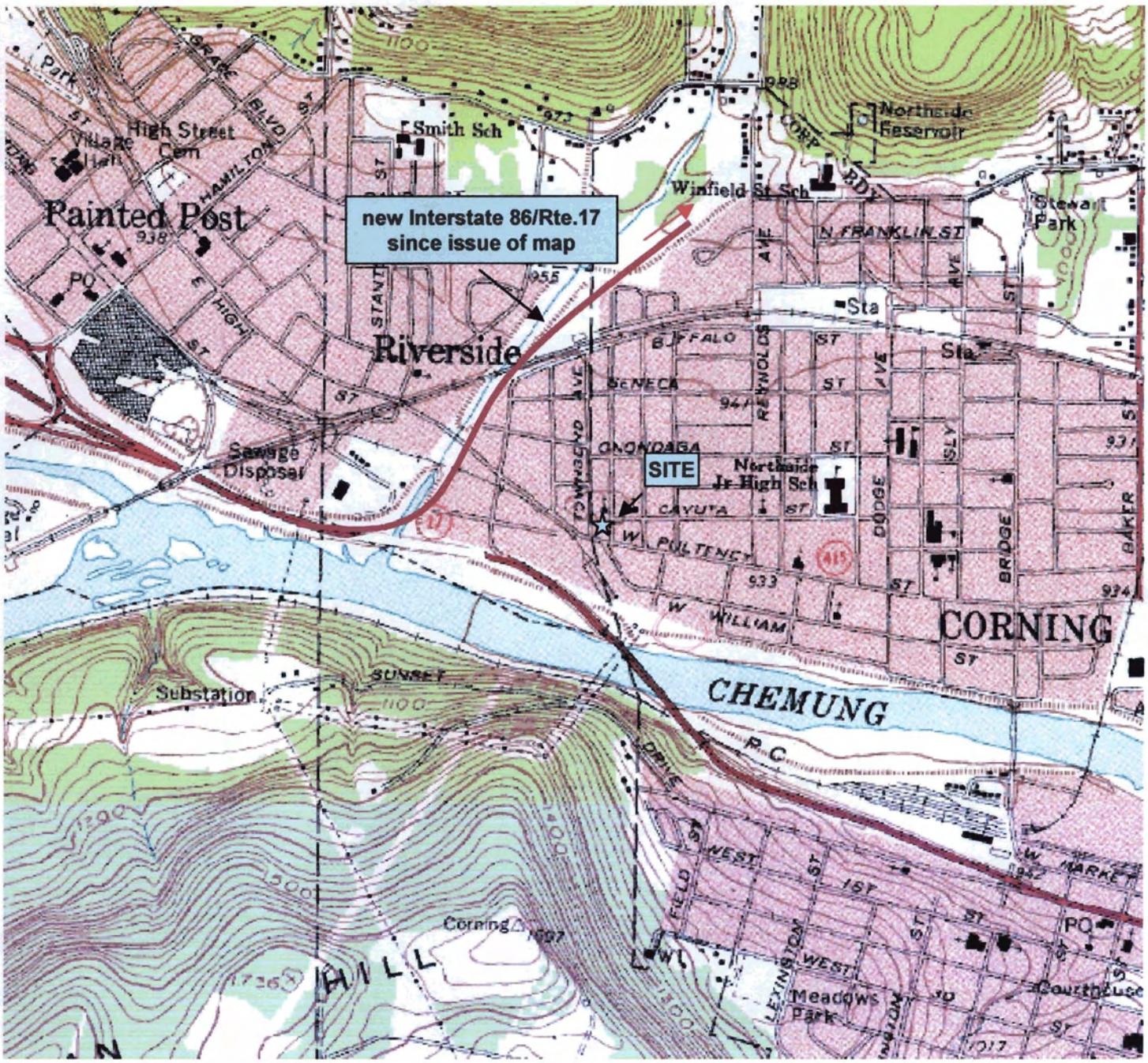
Area Map
April 21, 2005
1 in = 990 ft

Phase II ESA
Sugar Creek and Crystal Cleaners
343 West Pulteney Street
Corning, NY 14830
April 21, 2005

Aerial View
April 16, 1995
1 in 280 ft

Adapted from USGS Series Topographic
Corning Quadrangle
1976

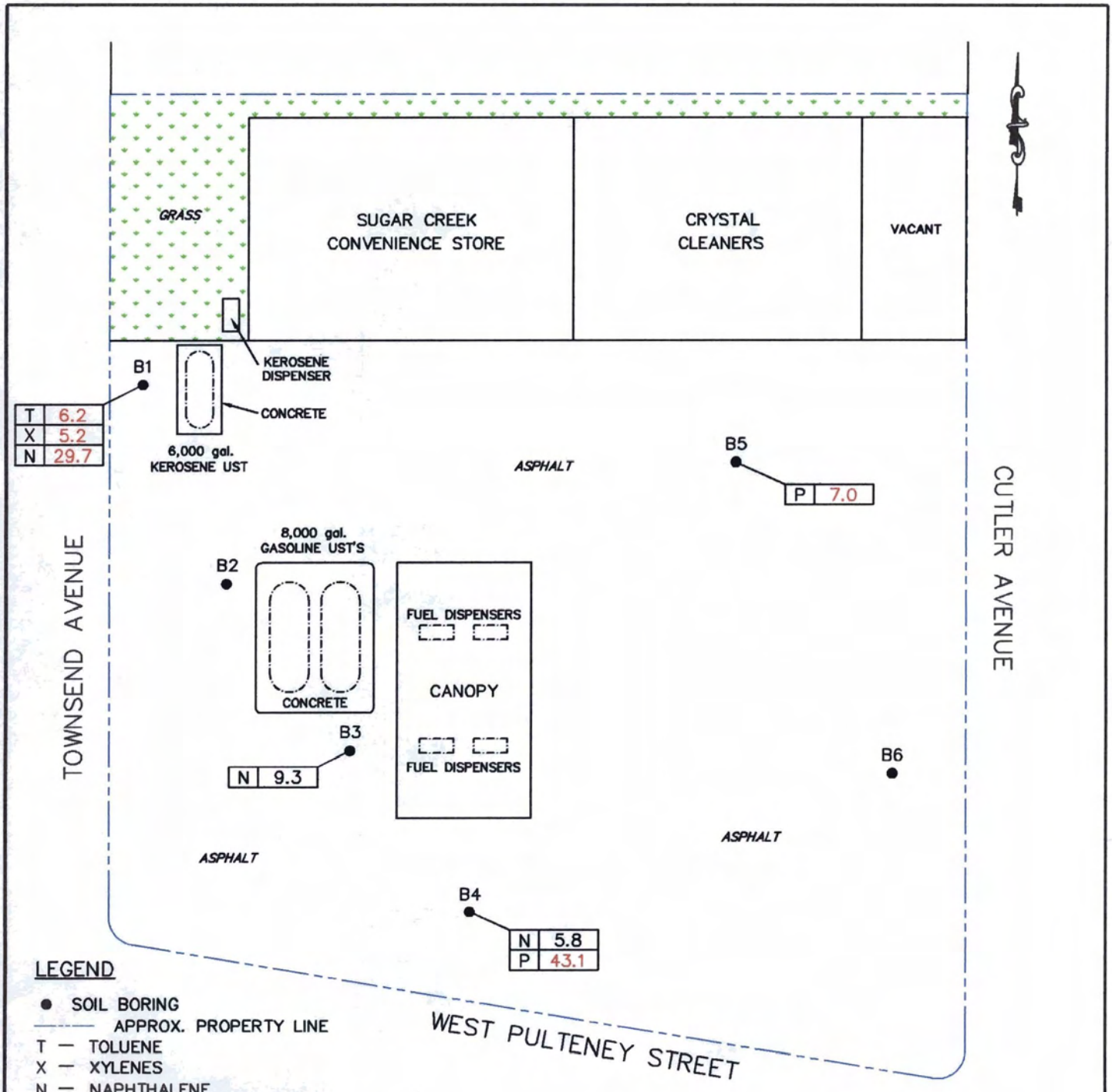
N



Phase II ESA
Sugar Creek and Crystal Cleaners
343 West Pulteney Street
Corning, NY 14830
April 21, 2005

Topographic Setting

1 in = 1,460 ft



SCALE 1" = 25'	0 — 25	
DRAWN BY	C. Treese	5/25/05
CHECKED BY	D. Teeter	5/25/05
REVISED BY	C. Treese	5/25/05
APPROVED BY	D. Teeter	5/25/05

Teeter Environmental Services

SUGAR CREEK & CRYSTAL CLEANERS
343 WEST PULTENEY STREET
CORNING, NY 14830
prepared for:
MR. DONALD STIKER
12 TUSCARORA RD.
ADDISON, NY 14801

Figure 5

CONTAMINANT CONCENTRATIONS in GROUNDWATER

APPENDIX B

SUBSURFACE LOGS

Teeter Environmental Services, Inc.

SUBSURFACE LOG

SITE LOCATION: Crystal Cleaners and Sugar Creek, 343 W. Pulteney Street, Corning, New York, 14830

CLIENT: Mr. Donald Stiker, 12 Tuscarora Road, Addison, New York 14801 WELL/BORING ID: **B1**

START DATE: April 21, 2005 COMPLETION DATE: April 21, 2005 RECORDED BY: Chris Treese

GROUNDWATER DEPTH WHILE DRILLING: ~7 feet GROUNDWATER DEPTH AFTER COMPLETION: NA

WEATHER CONDITIONS: Sunny, 53° DRILLING CONTRACTOR: Chambers Environmental Group

DRILL RIG: Geoprobe® 540UD DRILL SIZE & TYPE: 2" OD drive point DRILLER NAME(S): Keith Skow

Sample No.	OVM Reading (ppm)	Sample Interval (feet)	Sampler Type*	Recovery (inches)	Material Classification trace – 1-10% little – 11-20% some – 21-35% and – 36-50% f-fine m-medium c-coarse
1	0	0-4	MC	18	4" asphalt → 14" lt brown SILT and rounded fmc GRAVEL. Moist. No unusual odors.
2	0	4-8	MC	15	lt brown rounded fmc GRAVEL some SILT. Wet at ~7 feet. No unusual odors
3	0	8-12	MC	12	brown m SAND and rounded fmc GRAVEL little rounded c SAND. Wet. No unusual odors.
4	0	12-16	MC	15	brown rounded fmc GRAVEL and mc SAND. Saturated. No unusual odors.
					Boring terminated at 16 feet below ground surface.

NOTES: Groundwater sampled from borehole and submitted for laboratory analysis.

*MC – GEOPROBE MACROCORE SS – SPLIT SPOON DPSS – DIRECT PUSH SPLIT SPOON SH – SHELBY TUBE C – BEDROCK CORE

Teeter Environmental Services, Inc. SUBSURFACE LOG

SITE LOCATION: Crystal Cleaners and Sugar Creek, 343 W. Pulteney Street, Corning, New York, 14830

CLIENT: Mr. Donald Stiker, 12 Tuscarora Road, Addison, New York 14801 WELL/BORING ID: **B2**

START DATE: April 21, 2005 COMPLETION DATE: April 21, 2005 RECORDED BY: Chris Treese

GROUNDWATER DEPTH WHILE DRILLING: ~11 feet GROUNDWATER DEPTH AFTER COMPLETION: NA

WEATHER CONDITIONS: Sunny, 53° DRILLING CONTRACTOR: Chambers Environmental Group

DRILL RIG: Geoprobe® 540UD DRILL SIZE & TYPE: 2" OD drive point DRILLER NAME(S): Keith Skow

Sample No.	OVM Reading (ppm)	Sample Interval (feet)	Sampler Type*	Recovery (inches)	Material Classification trace – 1-10% little – 11-20% some – 21-35% and – 36-50% f-fine m-medium c-coarse
1	0	0-4	MC	6	4" asphalt → 2" rounded m gravel (PEA STONE FILL). Moist. No unusual odors.
2	0	4-8	MC	1	trace PEA STONE FILL.
3	0	8-12	MC	24	13" PEA STONE FILL → 11" reddish brown CLAYEY SILT and rounded mc GRAVEL trace fmc SAND. Saturated at ~11 feet. No unusual odors.
4	0	12-16	MC	8	brown SILT and rounded fmc GRAVEL. Saturated. No unusual odors.
					Boring terminated at 16 feet below ground surface.

NOTES

*MC – GEOPROBE MACROCORE SS – SPLIT SPOON DPSS – DIRECT PUSH SPLIT SPOON SH – SHELBY TUBE C – BEDROCK CORE

Teeter Environmental Services, Inc. SUBSURFACE LOG

SITE LOCATION: Crystal Cleaners and Sugar Creek, 343 W. Pulteney Street, Corning, New York, 14830

CLIENT: Mr. Donald Stiker, 12 Tuscarora Road, Addison, New York 14801 WELL/BORING ID: **B3**

START DATE: April 21, 2005 COMPLETION DATE: April 21, 2005 RECORDED BY: Chris Treese

GROUNDWATER DEPTH WHILE DRILLING: ~10 feet GROUNDWATER DEPTH AFTER COMPLETION: NA

WEATHER CONDITIONS: Sunny, 55° DRILLING CONTRACTOR: Chambers Environmental Group

DRILL RIG: Geoprobe® 540UD DRILL SIZE & TYPE: 2" OD drive point DRILLER NAME(S): Keith Skow

Sample No.	OVM Reading (ppm)	Sample Interval (feet)	Sampler Type*	Recovery (inches)	Material Classification trace – 1-10% little – 11-20% some – 21-35% and – 36-50% f-fine m-medium c-coarse
1	0	0-4	MC	25	4" asphalt → 8" gray silt, sand, f gravel, brick fragments (FILL) → 13" reddish brown f SAND and rounded fm GRAVEL little SILT. Moist. No unusual odors.
2	0	4-8	MC	17	brown f SAND and SILT some rounded fm GRAVEL little rounded mc SAND. Moist. No unusual odors.
3	0	8-12	MC	22	reddish brown moderately dense CLAYEY SILT and rounded fm GRAVEL little rounded c GRAVEL and c SAND. Saturated at ~10 feet. No unusual odors.
4	0	12-16	MC	10	3" lt brown soft CLAY → 7" brown m SAND little rounded c SAND and f GRAVEL. Wet. No unusual odors.
					Boring terminated at 16 feet below ground surface.

NOTES: Groundwater sampled from borehole and submitted for laboratory analysis.

*MC – GEOPROBE MACROCORE SS – SPLIT SPOON DPSS – DIRECT PUSH SPLIT SPOON SH – SHELBY TUBE C – BEDROCK CORE

Teeter Environmental Services, Inc.

SUBSURFACE LOG

SITE LOCATION: Crystal Cleaners and Sugar Creek, 343 W. Pulteney Street, Corning, New York, 14830

CLIENT: Mr. Donald Stiker, 12 Tuscarora Road, Addison, New York 14801 WELL/BORING ID: **B4**

START DATE: April 21, 2005 COMPLETION DATE: April 21, 2005 RECORDED BY: Chris Treese

GROUNDWATER DEPTH WHILE DRILLING: ~12 feet GROUNDWATER DEPTH AFTER COMPLETION: NA

WEATHER CONDITIONS: Sunny, 55° DRILLING CONTRACTOR: Chambers Environmental Group

DRILL RIG: Geoprobe® 540UD DRILL SIZE & TYPE: 2" OD drive point DRILLER NAME(S): Keith Skow

Sample No.	OVM Reading (ppm)	Sample Interval (feet)	Sampler Type*	Recovery (inches)	Material Classification trace – 1-10% little – 11-20% some – 21-35% and – 36-50% f-fine m-medium c-coarse
1	0	0-4	MC	31	5" asphalt → 26" dk brown and black silt, sand f gravel, brick fragments (FILL). Moist. No unusual odors.
2	0	4-8	MC	48	5" similar material → 4" dk brown SILT trace CLAY and ORGANICS (micro plant roots) → 39" lt brown moderately dense SILT little grayish and greenish CLAY streaking and mottling. Moist. No unusual odors.
3	0	8-12	MC	21	6" similar soils → 15" dk brown CLAYEY SILT and rounded fmc GRAVEL little fmc SAND. Moist. No unusual odors.
4	0	12-16	MC	15	9" similar soils → 6" dk brown and reddish silt and f SAND some rounded fm GRAVEL. Saturated. No unusual odors.
					Boring terminated at 16 feet below ground surface.

NOTES: Groundwater sampled from borehole and submitted for laboratory analysis.

*MC – GEOPROBE MACROCORE SS – SPLIT SPOON DPSS – DIRECT PUSH SPLIT SPOON SH – SHELBY TUBE C – BEDROCK CORE

Teeter Environmental Services, Inc. SUBSURFACE LOG

SITE LOCATION: Crystal Cleaners and Sugar Creek, 343 W. Pulteney Street, Corning, New York, 14830

CLIENT: Mr. Donald Stiker, 12 Tuscarora Road, Addison, New York 14801 WELL/BORING ID: **B5**

START DATE: April 21, 2005 COMPLETION DATE: April 21, 2005 RECORDED BY: Chris Treese

GROUNDWATER DEPTH WHILE DRILLING: ~12 feet GROUNDWATER DEPTH AFTER COMPLETION: NA

WEATHER CONDITIONS: Sunny, 57° DRILLING CONTRACTOR: Chambers Environmental Group

DRILL RIG: Geoprobe® 540UD DRILL SIZE & TYPE: 2" OD drive point DRILLER NAME(S): Keith Skow

Sample No.	OVM Reading (ppm)	Sample Interval (feet)	Sampler Type*	Recovery (inches)	Material Classification trace – 1-10% little – 11-20% some – 21-35% and – 36-50% f-fine m-medium c-coarse
1	0	0-4	MC	14	4" asphalt → 3" gravel ballast → 7" silt, sand, gravel (FILL). Moist. No unusual odors.
2	0	4-8	MC	15	reddish and dk brown CLAYEY SILT and rounded fm GRAVEL little fmc SAND. Moist. No unusual odors.
3	0	8-12	MC	16	reddish and dk brown SILT and rounded fmc GRAVEL. Moist. No unusual odors.
4	0	12-16	MC	6	6" similar soils. Saturated. No unusual odors.
					Boring terminated at 16 feet below ground surface.

NOTES Groundwater sampled from borehole and submitted for laboratory analysis.

*MC – GEOPROBE MACROCORE SS – SPLIT SPOON DPSS – DIRECT PUSH SPLIT SPOON SH – SHELBY TUBE C – BEDROCK CORE

Teeter Environmental Services, Inc.

SUBSURFACE LOG

SITE LOCATION: Crystal Cleaners and Sugar Creek, 343 W. Pulteney Street, Corning, New York, 14830

CLIENT: Mr. Donald Stiker, 12 Tuscarora Road, Addison, New York 14801 WELL/BORING ID: **B6**

START DATE: April 21, 2005 COMPLETION DATE: April 21, 2005 RECORDED BY: Chris Treese

GROUNDWATER DEPTH WHILE DRILLING: ~11 feet GROUNDWATER DEPTH AFTER COMPLETION: NA

WEATHER CONDITIONS: Sunny, 57° DRILLING CONTRACTOR: Chambers Environmental Group

DRILL RIG: Geoprobe® 540UD DRILL SIZE & TYPE: 2" OD drive point DRILLER NAME(S): Keith Skow

Sample No.	OVM Reading (ppm)	Sample Interval (feet)	Sampler Type*	Recovery (inches)	Material Classification trace – 1-10% little – 11-20% some – 21-35% and – 36-50% f-fine m-medium c-coarse
1	0	0-4	MC	18	5" asphalt → 13" dk brown and black silt, sand, gravel, brick fragments (FILL). Moist. No unusual odors.
2	0	4-8	MC	15	reddish brown dense CLAYEY SILT and angular to rounded fmc GRAVEL little fmc SAND. Moist. No unusual odors.
3	0	8-12	MC	16	brown m SAND and rounded fm GRAVEL little SILT. Wet at ~11 feet. No unusual odors.
					Boring terminated at 12 feet below ground surface.

NOTES

*MC – GEOPROBE MACROCORE SS – SPLIT SPOON DPSS – DIRECT PUSH SPLIT SPOON SH – SHELBY TUBE C – BEDROCK CORE

APPENDIX C

LABORATORY REPORT

Eastern Laboratory Services Ltd

quality ■ accuracy ■ reliability

ENVIRONMENTAL
390 N. Pennsylvania Ave.
South Waverly, PA 18840-2826
Phone (570) 888-0169
FAX (570) 888-0717

Certificate of Analysis

Teeter Environmental	Project: Sugar Creek	
RD#1, Box 124B, Macafee Road	Project No: [none]	**Reported:**
Sayre PA, 18840	Project Manager: Dave Teeter	05/26/05 15:34

B-1
5D22102-01 (Ground Water)

Date Sampled: 04/21/05 10:00
Date Received: 04/21/05 17:05

Analyte	Result	Detection Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
SW846/8260B Volatile Organic Compounds								
Benzene	<5.0	5.0	ug/l	04/26/05 00:00	04/26/05 00:00	SW846/8260B	CY	
n-Butylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
sec-Butylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Ethylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Isopropylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
p-Isopropyltoluene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Naphthalene	29.7	5.0	ug/l	04/26/05 00:00	"	"	CY	LCCV
n-Propylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Toluene	6.2	5.0	ug/l	04/26/05 00:00	"	"	CY	
1,2,4-Trimethylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
1,3,5-Trimethylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
m,p-Xylene	5.2	5.0	ug/l	04/26/05 00:00	"	"	CY	
o-Xylene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Methyl tert-butyl ether	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
tert-Butylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*80-120*		"	"	CY	
Surrogate: Toluene-d8		*100 %*	*88-110*		"	"	CY	
Surrogate: Bromofluorobenzene		*88.0 %*	*86-115*		"	"	CY	
SW846/8270C Semivolatile Organic Compounds								
Naphthalene	<10.0	10.0	ug/l	04/28/05 00:00	04/28/05 00:00	SW-846/8270C	RJH	
Acenaphthylene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Acenaphthene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Fluorene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Phenanthrene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Anthracene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Fluoranthene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Pyrene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Benzo (a) anthracene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Chrysene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Benzo (b) fluoranthene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	

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Barbara Hohman

Reviewed by Barbara Hohman, QA Manager

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Phone (570) 888-0169
FAX (570) 888-0717

Certificate of Analysis

Teeter Environmental	Project: Sugar Creek	
RD#1, Box 124B, Macafee Road	Project No: [none]	**Reported:**
Sayre PA, 18840	Project Manager: Dave Teeter	05/26/05 15:34

B-1
5D22102-01 (Ground Water)

Date Sampled: 04/21/05 10:00
Date Received: 04/21/05 17:05

Analyte	Result	Detection Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
SW846/8270C Semivolatile Organic Compounds								
Benzo (k) fluoranthene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Benzo (a) pyrene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Indeno (1,2,3-cd) pyrene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Dibenz (a,h) anthracene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Benzo (g,h,i) perylene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Surrogate: Nitrobenzene-d5		*69.4 %*	*42-103*		"	"	RJH	
Surrogate: 2-Fluorobiphenyl		*66.8 %*	*44-104*		"	"	RJH	
Surrogate: p-Terphenyl-d14		*83.0 %*	*55-113*		"	"	RJH	

Qualifiers:

LCCV = Continuing Calibration Verification was below acceptance limits. Results may be biased low.

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Barbara Hohman

Reviewed by Barbara Hohman, QA Manager

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Certificate of Analysis

Teeter Environmental	Project: Sugar Creek	
RD#1, Box 124B, Macafee Road	Project No: [none]	**Reported:**
Sayre PA, 18840	Project Manager: Dave Teeter	05/26/05 15:34

B-3
5D22102-02 (Ground Water)

Date Sampled: 04/21/05 11:10
Date Received: 04/21/05 17:05

Analyte	Result	Detection Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
SW846/8260B Volatile Organic Compounds								
Benzene	<5.0	5.0	ug/l	04/26/05 00:00	04/26/05 00:00	SW846/8260B	CY	
n-Butylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
sec-Butylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Ethylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Isopropylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
p-Isopropyltoluene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Naphthalene	9.3	5.0	ug/l	04/26/05 00:00	"	"	CY	LCCV
n-Propylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Toluene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
1,2,4-Trimethylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
1,3,5-Trimethylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
m,p-Xylene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
o-Xylene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Methyl tert-butyl ether	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
tert-Butylbenzene	<5.0	5.0	ug/l	04/26/05 00:00	"	"	CY	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*80-120*		"	"	CY	
Surrogate: Toluene-d8		*100 %*	*88-110*		"	"	CY	
Surrogate: Bromofluorobenzene		*87.6 %*	*86-115*		"	"	CY	
SW846/8270C Semivolatile Organic Compounds								
Naphthalene	<10.0	10.0	ug/l	04/28/05 00:00	04/28/05 00:00	SW-846/8270C	RJH	
Acenaphthylene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Acenaphthene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Fluorene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Phenanthrene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Anthracene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Fluoranthene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Pyrene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Benzo (a) anthracene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Chrysene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Benzo (b) fluoranthene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	

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Barbara Hohman

Reviewed by Barbara Hohman, QA Manager

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Certificate of Analysis

Teeter Environmental	Project: Sugar Creek	
RD#1, Box 124B, Macafee Road	Project No: [none]	**Reported:**
Sayre PA, 18840	Project Manager: Dave Teeter	05/26/05 15:34

B-3
5D22102-02 (Ground Water)

Date Sampled: 04/21/05 11:10
Date Received: 04/21/05 17:05

Analyte	Result	Detection Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
SW846/8270C Semivolatile Organic Compounds								
Benzo (k) fluoranthene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Benzo (a) pyrene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Indeno (1,2,3-cd) pyrene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Dibenz (a,h) anthracene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Benzo (g,h,i) perylene	<10.0	10.0	ug/l	04/28/05 00:00	"	"	RJH	
Surrogate: Nitrobenzene-d5		*68.7 %*	*42-103*		"	"	RJH	
Surrogate: 2-Fluorobiphenyl		*68.4 %*	*44-104*		"	"	RJH	
Surrogate: p-Terphenyl-d14		*84.6 %*	*55-113*		"	"	RJH	

Qualifiers:

LCCV = Continuing Calibration Verification was below acceptance limits. Results may be biased low.

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Barbara Hohman

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Teeter Environmental	Project: Sugar Creek	
RD#1, Box 124B, Macafee Road	Project No: [none]	**Reported:**
Sayre PA, 18840	Project Manager: Dave Teeter	05/26/05 15:34

B-4
5D22102-03 (Ground Water)

Date Sampled: 04/21/05 11:50
Date Received: 04/21/05 17:05

Analyte	Result	Detection Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
SW846/8260B Volatile Organic Compounds								
Benzene	<5.00	5.00	ug/l	04/26/05 00:00	04/26/05 00:00	SW-846/8260B	CY	
Bromobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Bromochloromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Bromodichloromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Bromoform	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Bromomethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
n-Butylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
sec-Butylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
tert-Butylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Carbon tetrachloride	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Chlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Chloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Chloroform	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Chloromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
2-Chlorotoluene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
4-Chlorotoluene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Dibromochloromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Dibromomethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2-Dibromoethane (EDB)	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2-Dibromo-3-chloropropane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2-Dichlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,3-Dichlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,4-Dichlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Dichlorodifluoromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1-Dichloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2-Dichloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1-Dichloroethene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
cis-1,2-Dichloroethene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
trans-1,2-Dichloroethene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	

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Barbara Hohman

Reviewed by Barbara Hohman, QA Manager

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Certificate of Analysis

Teeter Environmental	Project: Sugar Creek	
RD#1, Box 124B, Macafee Road	Project No: [none]	**Reported:**
Sayre PA, 18840	Project Manager: Dave Teeter	05/26/05 15:34

B-4
5D22102-03 (Ground Water)

Date Sampled: 04/21/05 11:50
Date Received: 04/21/05 17:05

Analyte	Result	Detection Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
SW846/8260B Volatile Organic Compounds								
1,2-Dichloropropane	<5.00	5.00	ug/l	04/26/05 00:00	"	SW-846/8260B	CY	
1,3-Dichloropropane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
2,2-Dichloropropane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1-Dichloropropene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
cis-1,3-Dichloropropene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
trans-1,3-Dichloropropene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Ethylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Hexachlorobutadiene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Isopropylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
p-Isopropyltoluene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Methylene chloride	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
n-Propylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Styrene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1,1,2-Tetrachloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1,2,2-Tetrachloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Tetrachloroethene	43.1	5.00	ug/l	04/26/05 00:00	"	"	CY	
Toluene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2,3-Trichlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2,4-Trichlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1,1-Trichloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1,2-Trichloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Trichloroethene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Trichlorofluoromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2,3-Trichloropropane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2,4-Trimethylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,3,5-Trimethylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Vinyl chloride	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
o-Xylene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
m,p-Xylene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	

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Barbara Hohman

Reviewed by Barbara Hohman, QA Manager

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FAX (570) 888-0717

Certificate of Analysis

Teeter Environmental	Project: Sugar Creek	
RD#1, Box 124B, Macafee Road	Project No: [none]	**Reported:**
Sayre PA, 18840	Project Manager: Dave Teeter	05/26/05 15:34

B-4
5D22102-03 (Ground Water)

Date Sampled: 04/21/05 11:50
Date Received: 04/21/05 17:05

Analyte	Result	Detection Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
SW846/8260B Volatile Organic Compounds								
Naphthalene	5.80	5.00	ug/l	04/26/05 00:00	"	SW-846/8260B	CY	LCCV
Methyl tert-butyl ether	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Surrogate: 1,2-Dichloroethane-d4		*110 %*	*80-120*		"	"	CY	
Surrogate: Toluene-d8		*100 %*	*88-110*		"	"	CY	
Surrogate: Bromofluorobenzene		*87.6 %*	*86-115*		"	"	CY	

Qualifiers:

LCCV = Continuing Calibration Verification was below acceptance limits. Results may be biased low.

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Certificate of Analysis

Teeter Environmental	Project: Sugar Creek	
RD#1, Box 124B, Macafee Road	Project No: [none]	**Reported:**
Sayre PA, 18840	Project Manager: Dave Teeter	05/26/05 15:34

B-5
5D22102-04 (Ground Water)

Date Sampled: 04/21/05 13:05
Date Received: 04/21/05 17:05

Analyte	Result	Detection Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
SW846/8260B Volatile Organic Compounds								
Benzene	<5.00	5.00	ug/l	04/26/05 00:00	04/26/05 00:00	SW-846/8260B	CY	
Bromobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Bromochloromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Bromodichloromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Bromoform	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Bromomethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
n-Butylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
sec-Butylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
tert-Butylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Carbon tetrachloride	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Chlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Chloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Chloroform	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Chloromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
2-Chlorotoluene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
4-Chlorotoluene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Dibromochloromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Dibromomethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2-Dibromoethane (EDB)	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2-Dibromo-3-chloropropane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2-Dichlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,3-Dichlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,4-Dichlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Dichlorodifluoromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1-Dichloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2-Dichloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1-Dichloroethene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
cis-1,2-Dichloroethene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
trans-1,2-Dichloroethene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	

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Barbara Hohman

Reviewed by Barbara Hohman, QA Manager

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FAX (570) 888-0717

Certificate of Analysis

Teeter Environmental	Project: Sugar Creek	
RD#1, Box 124B, Macafee Road	Project No: [none]	**Reported:**
Sayre PA, 18840	Project Manager: Dave Teeter	05/26/05 15:34

B-5
5D22102-04 (Ground Water)

Date Sampled: 04/21/05 13:05
Date Received: 04/21/05 17:05

Analyte	Result	Detection Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
SW846/8260B Volatile Organic Compounds								
1,2-Dichloropropane	<5.00	5.00	ug/l	04/26/05 00:00	"	SW-846/8260B	CY	
1,3-Dichloropropane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
2,2-Dichloropropane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1-Dichloropropene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
cis-1,3-Dichloropropene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
trans-1,3-Dichloropropene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Ethylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Hexachlorobutadiene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Isopropylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
p-Isopropyltoluene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Methylene chloride	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
n-Propylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Styrene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1,1,2-Tetrachloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1,2,2-Tetrachloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Tetrachloroethene	7.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Toluene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2,3-Trichlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2,4-Trichlorobenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1,1-Trichloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,1,2-Trichloroethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Trichloroethene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Trichlorofluoromethane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2,3-Trichloropropane	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,2,4-Trimethylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
1,3,5-Trimethylbenzene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Vinyl chloride	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
o-Xylene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
m,p-Xylene	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	

Eastern Laboratory Services, Ltd.

Barbara Hohman

Reviewed by Barbara Hohman, QA Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

PA 08380 NY 11216

ENVIRONMENTAL
390 N. Pennsylvania Ave.
South Waverly, PA 18840-2826
Phone (570) 888-0169
FAX (570) 888-0717

ELS Ltd
Eastern Laboratory Services Ltd
quality ■ accuracy ■ reliability

Certificate of Analysis

Teeter Environmental RD#1, Box 124B, Macafee Road Sayre PA, 18840	Project: Sugar Creek Project No: [none] Project Manager: Dave Teeter	**Reported:** 05/26/05 15:34

B-5
5D22102-04 (Ground Water)

Date Sampled: 04/21/05 13:05
Date Received: 04/21/05 17:05

Analyte	Result	Detection Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
SW846/8260B Volatile Organic Compounds								
Naphthalene	<5.00	5.00	ug/l	04/26/05 00:00	"	SW-846/8260B	CY	LCCV
Methyl tert-butyl ether	<5.00	5.00	ug/l	04/26/05 00:00	"	"	CY	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*80-120*		"	"	CY	
Surrogate: Toluene-d8		*99.2 %*	*88-110*		"	"	CY	
Surrogate: Bromofluorobenzene		*86.6 %*	*86-115*		"	"	CY	

Qualifiers:

LCCV = Continuing Calibration Verification was below acceptance limits. Results may be biased low.

Eastern Laboratory Services, Ltd.

Barbara Hohman

Reviewed by Barbara Hohman, QA Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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CHAIN OF CUSTODY

Eastern Laboratory Services, Ltd.
390 N. Pennsylvania Avenue • S. Waverly, PA 18840
Phone: (570) 888-0169

ELS Ltd
Eastern Laboratory Services Ltd

REPORT TO: TES Inc

CONTACT

PH. #

FAX #

BILL TO: TES Inc

PO#

PROJECT DESCRIPTION: Sysx Creek

SAMPLER SIGNATURE / AFFILIATION: TES Inc

REFRIGERATE SAMPLES AFTER COLLECTION.

TRANSPORT TO LABORATORY IN COOLER WITH ICE

DW DRINKING WATER · GW GROUND WATER · SW SURFCE WATER · WW WASTE WATER · SL SLUDGE · SO SOIL · HZ HAZARDOUS · OTHER

RESULTS ARE BEING USED FOR: NYDOH (NYDEC) PADEP LANDFILL _____ PERSONAL OTHER _____

ARE SPECIAL DETECTION LIMITS NEEDED: YES (NO)
IF YES PLEASE ATTACH

IS A QC PACKAGE NEEDED? YES (NO)
IF YES PLEASE ATTACH REQUIREMENTS

P PLASTIC · G CLEAR GLASS · AG AMBER GLASS

H HYDROCHLORIC ACID · S SULFURIC ACID · N NITRIC ACID · SO_3 SODUIM SULFITE · Thio SODIUM THIOSULFATE · OH SODIUM HYDROXIDE · AS ASCORBIC ACID · AC ACETIC ACID · NH_4 AMMONIUM CHLORIDE · ZN ZINC ACETATE · Hg MERCURIC CHLORIDE

CONTAINER #	SAMPLING POINT	DATE SAMPLED	TIME OF SAMPLING	SAMPLE MATRIX	SAMPLE TYPE - GRAB / COMPOSITE	SAMPLER (INITIALS)	CONTAINER TYPE	CONTAINER SIZE	PRESERVATIVE	ANALYSIS TO BE PERFORMED (PER CONTAINER) AB / C	COMPOSITED ON RECEIPT	PRESERVATIVE ADDED ON RECEIPT	ELS USE ONLY
1	B-1	4/21/05	1000	GW	G	DT	G	40 ml	HCl	8260 STARS / 8270 STARS			5D22102-01A-I
2	B-3		1110							" / "			-02A-I
3	B-4		1150							8260 Full List			-03A-I
4	B-5		105										-04A-I
5													
6													
7													
8													
9													
10										Due 5/6/05			

Please fill out all applicable areas completely

ELS USE ONLY

DELIVERED BY: DT

TEMPERATURE UPON RECEIPT: 4

1. SAMPLES WERE: SHIPPED / (HAND DELIVERED)
2. CONTAINERS INTACT: (Y) N
3. COC COMPLETE: (Y) N
4. PROPERLY PRESERVED: (Y) N
5. WITHIN HOLDING TIMES: (Y) N
6. LABELS MATCH COC: (Y) N
7. TRIP BLANKS: Y N

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
	/ /			/ /	
[signature]	4/21/05		Debbie McCarty	4/21 05	1705

4/22/05 11:38

APPENDIX B

SITE PHOTOGRAPHS

CRYSTAL CLEANERS SITE PHOTOGRAPHS

South side of the Site building. (9/9/05)

Looking west at north side of Site building. (9/9/05)

CRYSTAL CLEANERS SITE PHOTOGRAPHS

Basement sump surface water sample location (SW-2). (9/9/05)

Basement sump surface water sample location (southeast corner of basement)(SW-1). (9/9/05)

Sub-slab sample in south east corner of Site building (vacant space). (1/26/06)

.

APPENDIX C

FIELD DATA RECORDS

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners	Boring/Well No.: GW/MW-1	Project No.: 3612052036	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No.: 1 of 1	
Logged By: Brandon Shaw	Ground Elevation:	Start Date: 01/24/06	Finish Date: 01/24/06
Drilling Contractor: AJT	Driller's Name: Marty Bachner	Rig Type: Geo Probe 5400	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2"	Auger Size: 1 1/2"
Soil Drilled: 8'	Rock Drilled:	Total Depth: 26.5'	Depth to Groundwater/Date:	Micro Piez ☑ Well ☐ Boring ☐

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	PI Meter Head Space		Lab Tests
1	S1 1.8/4.0					0-~1.0 DK Brown organic silty fine Sand, MP/SP, damp, PG, roots, Dense	SM-OL		<1.0			
2						1-~2' Lt orange/Brown silty Sand and gravel, organic smell, WG, m Dense, damp, NP/SP,	SM-GM					
3						2'-3' DK olive/Brown silty/fine sandy clay, trace fine gravel, PG, moist, MP, friable, m stiff, organic scent	SM					
4						3-4 orange/Lt brown clayey sandy gravel, wet, loose, WG, SP/MP, Slight organic scent	SC-GC					
5	S2 1.0/4.0					4-8' (Composited because of MS/MSD) - lack of soil in Sleeve	GW	Composite	<1.6			
6						Lt orange/Brown Sandy gravel w/ Some fines, WG, wet, SP,						
7												
8						Sample from composite of 4' to 8' - CRGS001006-01XX, MS, MD						
9												
10												
11												
12												

BOB @ 26.5', direct push

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners	Boring/Well No.: GW-2	Project No.: 361205.2036	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No.: 1 of 1	
Logged By: Brandon Shaw	Ground Elevation	Start Date: 01/25/06	Finish Date: 01/25/06
Drilling Contractor: ADT	Driller's Name: Mark Bachner	Rig Type: Geoprobe 5400	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2"	Auger Size: 1 1/2"
Soil Drilled: 8'	Rock Drilled	Total Depth: 28'.	Depth to Groundwater/Date	Piez ☐ Well ☐ Boring ☑

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests
1	S1 2.0/4.0					0-1 DK Brown organic silty fine Sand, damp, roots, MP, PG, some fine gravel @ 0.8', Dense	Fill-GM		<1.0		
2						1-2.5 Olive silty fine Sand and fine gravel, moist, PG, rounded, roots, MP, Dense,	GM				
3						2.5-3.5 orange/Brown, Sandy clayey gravel, moist, WG, SP/MP,	GC				
4						3.5-4. Lt Grey/Brown, clayey gravel WG, wet, SP/MP, loose					
5	S2 1.7/4.0					4-~4.5 Olive gravel and clay, WG, MP, moist, M. Dense	Rock flour		<1.0		
6						~4.5-~5. Orange rocks/rock flour loose	GC				
7						5-6 orange/Brown Sand gravel and clay, wet, MP, WG, M Dense					
8						6-8 Brown clean Sand and gravel, M Dense, wet, PG, Trace clay collecting sample from 6-8;	GP		60 ppb		
9						CRG8002007QXX @ 0830					
10											
11											
12											

▽ TDS: 28' Direct Push.

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners	Boring/Well No.: GW-3	Project No.: 361205.2036	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No.: 1 of 1	
Logged By: Brendan Sheil	Ground Elevation:	Start Date: 01/25/06	Finish Date: 01/25/06
Drilling Contractor: ADT	Driller's Name: Monty Bachner	Rig Type: Geo Probe 5400	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2" / Auger Size: 1 1/2"
Soil Drilled: 8'	Rock Drilled:	Total Depth: 28'	Depth to Groundwater/Date: Piez ☐ Well ☐ Boring ☑

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	PI Meter Head Space		Lab Tests
1						0-0.8 Brown/DK Brown. Silty fine sand and gravel, damp to,	Fill.		<1.6			
2	1.9/4.0					0.8-~2.0 Olive silty fine sand and gravel, wet, SP, damp, slight odor?						
3						2-2.5 Same as above but black staining present, slight odor, pieces of brick, glass,						
4						2.5-3.5 Olive clay w/ little gravel, MP, PG, trace pieces of fine mortar (brick-red), MP, wet,	Fill					
5						3.5-4 orange Lt Brown Sandy clay w/ some gravel, v. angular to rounded, wet, wet, MP, Soft,			<1.0			
6	1.6/4.6					4-5 orange Brown, Sand-gravel clay, w/ glass, wet, MP, lenses of black fine sand, m Dense, moist-	GC					
7						5-5.5 Grey gravel w/ trace sand, PG, Dry, NP,						
8						5.5-8 orange/Brown, sand gravel and clay mixture, wet, sat/wet, loose,						

▽ TDS: 28' bgs; direct Push.

Harding Lawson Associates

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners	Boring/Well No.: GW/MW-1	Project No.: 361205.2036	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No. 1 of 1	
Logged By: Brendan Shaw	Ground Elevation	Start Date: 01/24/06	Finish Date: 01/24/06
Drilling Contractor: AIT	Driller's Name: Monty Bachner	Rig Type: Geo Probe 5400	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2"	Auger Size: 1 1/2"
Soil Drilled: 8'	Rock Drilled	Total Depth: 26.5'	Depth to Groundwater/Date	Micro Piez ☑ Well ☐ Boring ☐

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	PI Meter Head Space	Lab Tests
1						0 – ~1.0 DK Brown organic silty fine Sand, MP/SP, damp, PG, roots, Dense	SM-OL		<1.0		
2	1.8 / 4.0					1 – ~2' Lt orange / Brown silty Sand and gravel, organic smell, WG, m Dense, damp, NP/SP,	SM-GM				
3						2' – 3' DK olive / Brown silty/fine sandy clay, trace fine gravel, PG, moist, MP, friable, m stiff, organic scent	SM				
4						3 – 4 orange / Lt brown clayey sandy, gravel, wet, loose, WG, SP/MP, Slight organic scent	SC/GC				
5									<1.6		
6	1.0 / 4.0					4 – 8' (Composited because of MS/MSD) - lack of soil in Sleeve Lt orange / Brown Sandy gravel w/ Some fines, WG, wet, SP,	GW	Composite			
7											
8						Sample from composite of 4' to 8' - CRGS001006 01 XX, MS, MD					
9											
10											
11											
12											

S1

S2

BOB @ 26.5', direct push

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners	Boring/Well No.: GW-2	Project No.: 3612052036	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No.: 1 of 1	
Logged By: Brandon Shaw	Ground Elevation	Start Date: 01/25/06	Finish Date: 01/25/06
Drilling Contractor: ADT	Driller's Name: Mark Bachner	Rig Type: Geoprobe 5400	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2"	Auger Size: 1 1/2"
Soil Drilled: 8'	Rock Drilled	Total Depth: 28'.	Depth to Groundwater/Date	Piez ☐ Well ☐ Boring ☑

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	PI Meter Head Space		Lab Tests
1	S1 2.0/4.0					0-1 DK Brown organic silty fine sand, damp, roots, MP, PG, some fine gravel @ 0-8', Dense	Fill-GM		<1.0			
2						1-2.5 olive silty fine sand and fine gravel, moist, PG, rounded, roots, MP, Dense;	GM					
3						2.5-3.5 orange/brown, sandy clayey gravel, moist, WG, SP/MP,	GC					
4						3.5-4. Lt brey/Brown, clayey gravel WG, wet, SP/MP, loose						
5	S2 1.7/4.0					4-~4.5 olive gravel and clay, WG, MP, moist, M. Dense	Rock flour		<1.0			
6						~4.5-5. Orange rocks/rock flour loose	GC					
7						5-6 orange/Brown Sand gravel and clay, wet, MP, WG, M Dense						
8						6-8 Brown clean Sand and gravel, M Dense, wet, PG, Trace clay collecting sample from 6-8;	GP		60 ppb			
9						CRG8002007QXX @ 0830						
10												
11												
12												

▽ TDS: 28' Direct Push.

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners	Boring/Well No.: GW-3	Project No.: 36120520.36	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No.: 1 of 1	
Logged By: Brendan Shaw	Ground Elevation:	Start Date: 01/25/06	Finish Date: 01/25/06
Drilling Contractor: ADT	Driller's Name: Marty Bachner	Rig Type: Geo Probe 5400	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2"	Auger Size: 1 1/2"
Soil Drilled: 8'	Rock Drilled:	Total Depth: 28'	Depth to Groundwater/Date:	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	PI Meter Head Space		Lab Tests
1						0-0.8 Brown/DK Brown Silty fine sand and gravel, damp to,			<1.6			
2	1.9/4.0					0.8-~2.0 Olive silty fine sand and gravel, wG, SP, damp, slight odor?	Fill.					
3						2-2.5 Same as above but black staining present, slight odor, pieces of brick/glass,						
4						2.5-3.5 Olive clay w/ little gravel, MP, PG, trace pieces of fine mortar (brick-ved), MP, wet,	Fill					
5						3.5-4 orange Lt Brown Sandy clay w/ some gravel, v. angular to rounded, wG, wet, MP, Soft,			<1.0			
6	1.6/4.6					4-5 Orange Brown, Sand-gravel clay, w/ glass, wG, MP, lenses of black fine sand, M Dense, moist	GC					
7						5-5.5 Grey gravel w/ trace sand, PG, Dry, NP,						
8						5.5-8 orange/Brown, Sand gravel and clay mixture, wG, sat/wet, loose,						

▽ TDS: 28 bgs; direct Push.

TEST B

Project: NYSDEC - Region 8 Dry Cle		MW-4	Project No.: 3612052036
Client: NYSDEC	Site: Crystal Cleaners		Sheet No. 1 of 1
Logged By: Brandon Shaw	Ground Elevation	Start Date: 01/26/06	Finish Date: 01/26/06
Drilling Contractor: ADT	Driller's Name: Monty Bachmer		Rig Type: Geo Probe 5400
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2" / Auger Size: 1 1/2"
Soil Drilled: 12'	Rock Drilled	Total Depth: 32'	Depth to Groundwater/Date: Piez ☐ Well ☐ Boring ☑

Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	PI Meter Head Space		Lab Tests
1	2.0/4.0					0-1.0 Black top, Bedding, sandy gravel, dry, loose	Fill		<1.0			
2						1.0-2.5 olive/Brown gravely clay w little sand, WG, damp, MP, m stiff;	GC					
3						2.5-3.0 Orange Brown sandy clay w some gravel, dry, WG, SP.	SC					
4						3.0-4.0 Olive Brown/orange Brown Sand-clay-gravel mix, wet, WG, MD, m stiff.	GC					
5	1.6/4.0					4.5-5.5 DK Brown Sand-gravel-clay wet, WG, moist, loose, SP/MD,	GC		<1.0			
6						5.5-8 Olive Brown, Sand-gravel clay mix, WG, m stiff, wet, MP						
7												
8						collecting Sample + Dup. From 5.5' to 8'.						
9	1.0/4.0					8-12 Brown/olive sand-gravel/ clay, WG, wet/sat, m stiff/dense.	GC		<1.0			
10												
11												
12												

S1 S2 S3

▽ TDS: 32' bls, direct Push

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners	Boring/Well No.: GW-005	Project No.: 3612052036	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No. 1 of 1	
Logged By: Brandon Shaw	Ground Elevation	Start Date: 01/25/06	Finish Date: 01/25/06
Drilling Contractor: ADT	Driller's Name: Marty Bachmer	Rig Type: Geo Probe 5400	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2" / Auger Size: 1 1/2"
Soil Drilled: 8'	Rock Drilled	Total Depth: 28'	Depth to Groundwater/Date: Micro Piez ☑ Well ☐ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	PI Meter Head Space		Lab Tests
1						0-1 Blacktop, Bedding, Sandy gravel, loose, dry	Fill material		<1.6			
2	1.9/4.0					1-1.5 Olive/Black Sand-gravel, clay mix, damp, WG, dense, SP,						
3						1.5-~2.5 Grey, Black Sandy gravel fill w/ crushed mortar						
4						2.5-2.9 orgaan/red Brick, Brick flour, dry NP V. Dense/solid	SC					
5						2.9-4 Lt olive Brown, Stratified grey fine sandy clay w/ trace gravel, moist, stiff, MP, but friable, PG, photo	Fill?		<1.0			
6	3.2/4.0					4-4.2 Olive and Black Gravel and sand mixed in w/ fine sandy/silty clay, moist, HP/NP; -Fill; pieces of Brick/mortar - red.	SM/SC					
7						4.2-4.5 Lt olive/Lt Brown Stratified fine sandy clay, PG, HP, moist/wet,						
8						4.5-8 Stratified well drained fine Sandy clay, Lt olive, reddish brown, Lt Brown, to Lt grey, PG, MP, moist, Stiff. PHOTO						
9						Collected Sample @ 7.5 to 8' @ 1200						
10												
11												
12												

S1

S2

▽ TDS: 28' bgs; Direct Push.

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners	Boring/Well No.: GW-7	Project No.: 361205.2036	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No.: 1 of 1	
Logged By: Brandon Shaw	Ground Elevation:	Start Date: 01/24/06	Finish Date: 01/24/06
Drilling Contractor: ADT	Driller's Name: Marty Bachner	Rig Type: Geo Probe 5400	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2" / Auger Size: 1 1/2"
Soil Drilled: 8'	Rock Drilled:	Total Depth: 36'	Depth to Groundwater/Date: Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space	Lab Tests
1	S1					0-1.0 Blacktop; Bedding, Black, loose, sand/gravel, dry	Fill		<1.0		
2	1.7/4.0					1-2 Black Sandy gravel, odor, wet, NP, M Dense, WG	GW				
3						2-3 olive/grey fine Sand/silty clay w/ trace gravel V. Stiff, dry, MD/SP, PG, Slight odor	SM/SC				
4						3-4 same as above, w/ coarse gravel, pink "rocks"!					
5	S2					4-4.5 DK Brown Sandy gravel loose	GC		<1.0		
6	1.6/4.0					4.5-6 orange, olive gravely clay, wet, MP, WG,					
7						6-8 Lt Brown dive gravely clay, wet/saturated zones, WG, HP/MP, lenses of fine gravel.					
8											
9											
10											
11											
12											

BOB @ 36'.

1st Attempt - Refusal @ 7'; 0.6' of oak wood blocking probe.

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners	Boring/Well No.: GW-8	Project No.: 3612052036	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No.: 1 of 1	
Logged By: Brendan Shaw	Ground Elevation:	Start Date: 01/23/06	Finish Date: 01/23/06
Drilling Contractor: ADT	Driller's Name: Marty Bachner	Rig Type: Geo Probe 5400	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV):	Casing Size: 1 1/2"	Auger Size: 1 1/2"
Soil Drilled: 12'	Rock Drilled:	Total Depth: 39.5 - Refusal	Depth to Groundwater/Date: ~11'	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	PI Meter Head Space		Lab Tests
1						0-0.2 Black Top, fill			41.0			
2	S1 3.1/4.0					0.2-1.0 Backfill for tarred area (PPB-390); Black, loose NP, Sandy gravel.	Fill					
3						1.0-1.8' Lt grey fine Sand and fine gravel w/ coarse Sand, PG, NP, loose, dry,	SM					
4	Photo					1.8-2.0 DK reddish Brown layer, Silty fine sand w/ coarse sand, Dry NP/SP, PG, M dense,	SP/GW					
5						2.0--2.6 DK grey Silty fine Sand, odor, some fine gravel, damp, m stiff, friable.	SM		41.0			
6	S2 3.9/4.0					2.6-2.7 white zone, same as above.	SM					
7						2.7-4 Brownish olive Silty fine sand w/ trace coarse sand/fine gravel; damp PG, NP, Stiff	SM					
8						4-4.2 Black/Brown Sandy clay FILL, PG, damp, loose						
9	S3					4.2-5.0 Yellow/olive/Brown, Stratified w/ orange well drained areas, Sandy fine, Silt, PG, damp, SP, V. dense.	GC/SM		41.0			
10						5.0-5.7 Same as above but moist						
11	2.2/4.0					5.7-8.0 Same as above but dry @7 purple 'roots' observed						
12	Photo					@-8' Some clay observed below a 0.1' layer of fine gravel; more grey zones from 7-8.	SM					
						8-9.5 olive Brown fine sandy silt w/ some clay, PG, moist, MP, M. Stiff	CL/GC					
						9.5-9.6 Black Sandy gravel, dry NP						
						9.6-10.5 Same as 5.7-8.0						
						10.5-12 Lt Brown Sandy gravel w/ fines, Sat., SP, WG, loose.						

▽ TOS: 39.5' (refusal) bgs; Direct Push

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners	Boring/Well No.: GW - 11	Project No.: 36120S2036	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No.: 1 of 1	
Logged By: Brandon Shaw	Ground Elevation:	Start Date: 01/24/06	Finish Date: 01/24/06
Drilling Contractor: ADT	Driller's Name: Monty Buchner	Rig Type: Geoprobe 5400	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2" / Auger Size: 1 1/2"
Soil Drilled: 8'	Rock Drilled:	Total Depth: 32'	Depth to Groundwater/Date: Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests
1						0-0.1 frozen, rootzone, grass			<1.0		
2	1.3/4.0					DK Brown, snow. 0.1-0.6 DK Brown silty fine sand, organic loam, damp, SP, PT, roots, m Dense.	SM				
3						0.6-1.0 same as above but w/ some gravel;	N/A				
4						1.0-1.3 Lt Brown/orange, sandy clay w/ gravel, damp, MP, m Dense, WG, Cobble Stuck in Shoe.					
5						4-5 Lt Brown/orange Sandy gravel w/ some fines, damp/moist, loose WG, NP,	GW		<1.0		
6	2.1/4.0					5-5.5 Lt Brown/orge gravelly clay w some sand, wet, loose, WG	GC				
7						5.5-6.5 Same as above but sat.					
8						6.5-8 Lt Brown Sandy gravel w/ trace fines, dry, NP, WG,	GW				
9											
10											
11											
12											

S1 S2

BOB @ 32'. Tight' driller said in spots.

Harding Lawson Associates

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners		Boring/Well No.: GW-15	Project No.: 36.2052036
Client: NYSDEC	Site: Crystal Cleaners		Sheet No.: 1 of 1
Logged By: Brendan Shaw	Ground Elevation:	Start Date: 01/23/06	Finish Date: 01/23/06
Drilling Contractor: ADT	Driller's Name: Marty Bachmer		Rig Type: Geo Probe 540
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2"	Auger Size: 1/2"
Soil Drilled: 8'	Rock Drilled:	Total Depth: ~27.'	Depth to Groundwater/Date:	Piez ☒ Well ☐ Boring ☒

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests
1	S1 1.8/4.0					0-~2.0 DK Brown silty fine Sand clay, PG, SP, friable, organic odor, roots, Some fine gravel @ 2'	SM		<1.0		
2						2-4 orange Brown gravely clay w some sand; (predominantly sand @ ~4' w gravel clay) WG, wet @ ~3', MP, Stiff,	GC				
3											
4						4'-4.1' orange Brown, gravely Clay, wet, HP, PG, M Stiff cobble stock in casing.	refusal		<1.0		
5	S2										
6	0.1/4.0										
7											
8											
9											
10											
11											
12											

BOB = refusal @ ~27', Direct Push

Harding Lawson Associates

TEST BORING LOG

Project: NYSDEC - Region 8 Drycleaners	Boring/Well No.: GW-16	Project No.: 361205.2036	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No.: 1 of 1	
Logged By: Brendan Shaw	Ground Elevation:	Start Date: 01/23/06	Finish Date: 01/23/06
Drilling Contractor: AGT	Driller's Name: Marty Bochner	Rig Type: Geo Probe 5400	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2"	Auger Size: 12"
Soil Drilled: 8'	Rock Drilled:	Total Depth: 23.5'	Depth to Groundwater/Date:	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests
1						0 - ~2' DK Brown organic Silty fine Sand, PG, MP, damp, friable, roots throughout,	SM-Fill?		<1.0		
2	1.3/4.0					2 - ~3.5 orange Brown, silty fine sand w/ gravel, organic odor, loose, WG, roots, moist, M. Dense	SM/SC				
3											
4						3.5 - 4 Brownish olive Sand/gravel w/ some fines, WG, SP, wet, M Dense,			<1.0		
5							GC				
6	1.9/4.0					4 - ~6.5 same as 3.5 - 4					
7						6.5 - 7 Reddish coarse gravel and rock flour	Rocks-gravel				
8						7 - 8 Olive Brown, gravely Clay w/ some sand, wet, WG MP,	GC				
9						@8' Dark Brown organic silty Sand layer (0.1'), Strong organic odor.					
10											
11											
12											

S1

S2

BOB - 23.5' Refusal; hard refusal.

TEST BORING LOG

Project: NYSDEC - Region 8 Dry Cleaners	Boring/Well No.: GW-017	Project No.: 36120S2036	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No.: 1 of 1	
Logged By: Brandon Shaw	Ground Elevation:	Start Date: 01/23/06	Finish Date: 01/23/06
Drilling Contractor: ADT	Driller's Name: Marty Bachmer.	Rig Type: Geo Probe 5400	
Drilling Method: Geo Probe Direct Push	Protection Level: D	P.I.D. (eV): <1.0	Casing Size: 1 1/2"	Auger Size: 1 1/2"
Soil Drilled: 8'	Rock Drilled:	Total Depth: 23'	Depth to Groundwater/Date:	Piez ☐ Well ☐ Boring ☑

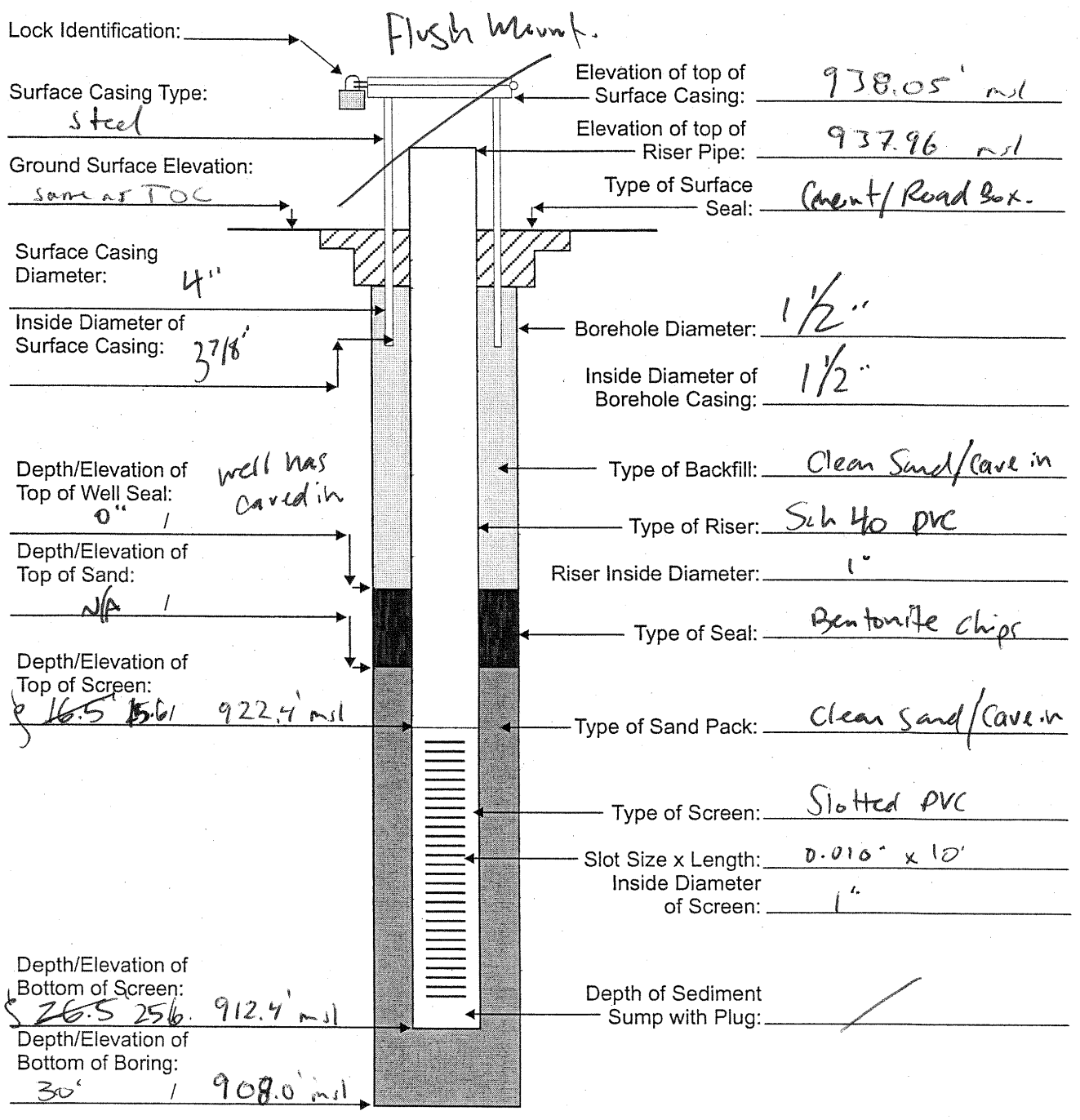
Depth(Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests
S1											
1						0-1.0 DK Brown Sandy loam, MP, PG, loose, roots, damp	Fill		<1.0		
2	2.1/4.0					1.0-2.0 Olive Brown silty fine Sand, PG, Stiff, moist, MP,					
3						2-3.0 Same as (1-2) but Lt Brown.	SM				
4						3-4 orange/Brown Sandy gravel w/ some fines, WG, mDense, wet, SP,	GM				
S2						4-5 Same as 3-4, but DK Brown organic loose trace lt.			<1.0		
5	1.8/4.0					~5-6 Lt Brown Sandy gravel w/ some fines, wet, loose, fines to fine gravel, WG, SP	GC				
6						6-7.5 Lt Brown; lenses of coarse Gravel in Sandy clay, HP, wet,					
7						7.5-8- Lt Brown Sandy gravel w/ fines, Sat, SP, loose					
8											
9											
10											
11											
12											

Refusal @ 23'; hard, will not push

Monitoring Well Log (Stick Up Type)

Well No.: GW-1 / MW-1

Project No.: 36120526 36	Project Name: NYSDEC - Region 8 Dry Cleaners		
	Project Area: Crystal Cleaners		
Contractor: ADT	Driller: Marty Badue	Method: Direct Push - GeoProbe.	
Logged By: Brandon Shaw		Date Started: 01/24/06	Completed: 01/24/06
Checked By: CRS	Date: 4/3/06	CRGW00102601XX, MS, MD @ 1430.	



Not To Scale

FIGURE

MACTEC Engineering and Consulting, Inc.

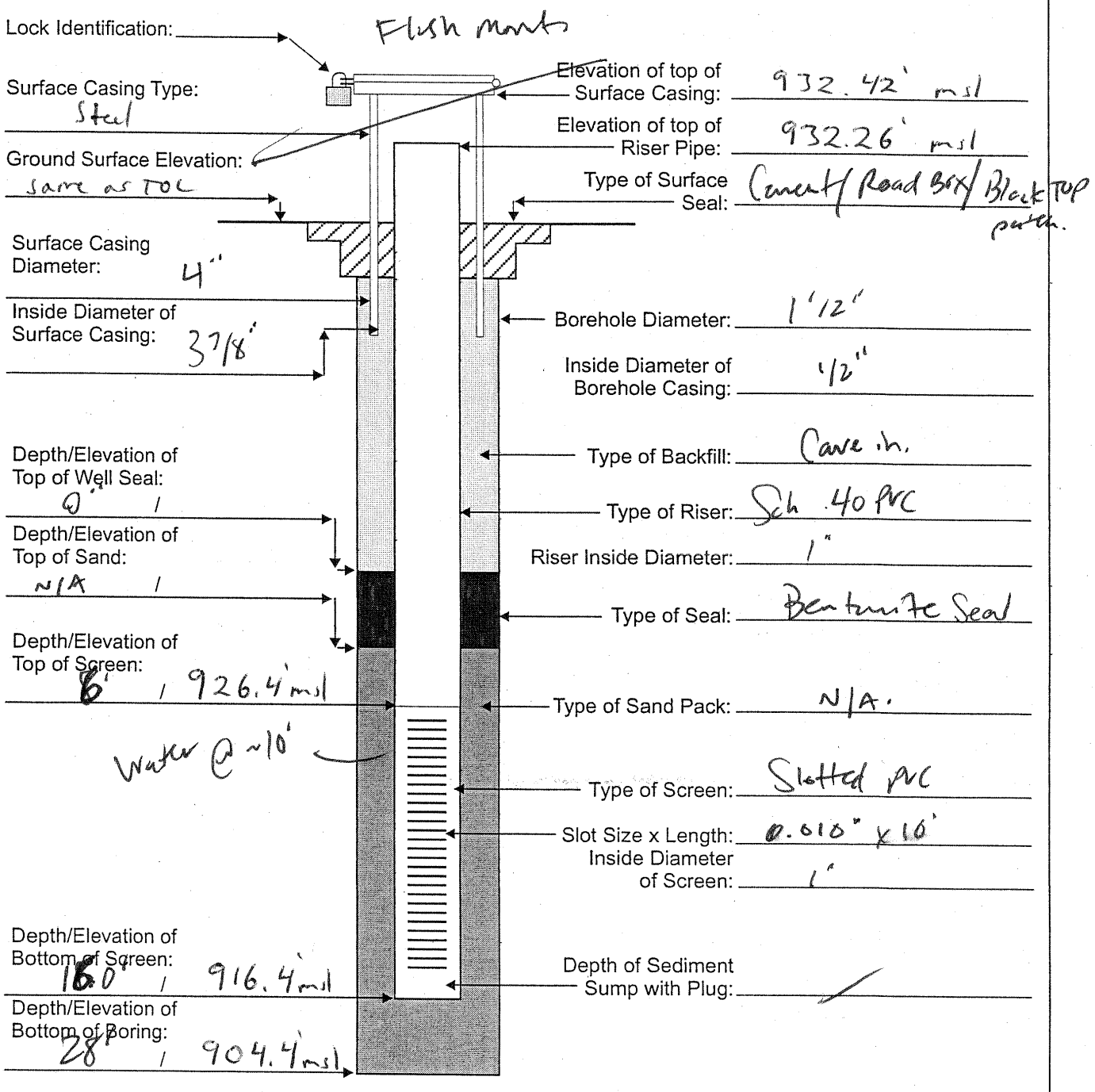
Graphics\Misc.\Forms

02/09/06 : 1st Round water levels:
BOB: 25.58'; D to W: 15.20'

Monitoring Well Log (Stick Up Type)

Well No.: GW-5 / MW-5

Project No.: 36120520.36	Project Name: NYSDEC - Region 8 Dry Cleaners		
	Project Area: Crystal Cleaners.		
Contractor: ADT	Driller: Marty B.	Method: Direct Push - Geo Probe	
Logged By: Brandon Shaw		Date Started: 01/25/06	Completed: 01/25/06
Checked By: CRS	Date: 4/3/06		



Not To Scale

FIGURE

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

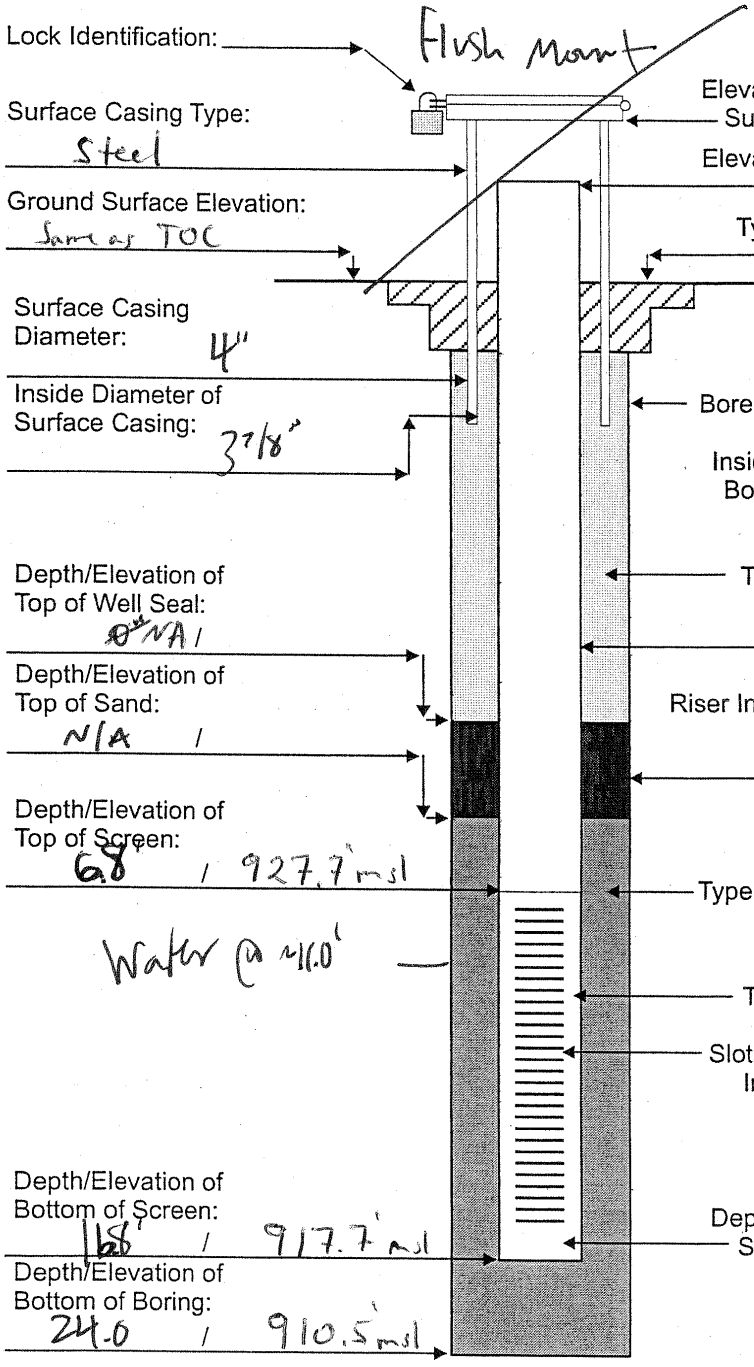
02/09/06: First Round of water levels:

BOB: 16.00' ; DTOW: 9.37'

Monitoring Well Log (Stick Up Type)

Well No.: GW-6 / MW-6

Project No.: 36120052036	Project Name: NYSDEC - Region 8 Dry Cleaners.
	Project Area: Crystal Cleaners.
Contractor: ADT	Driller: Marty B.
Method: Direct Push - Geo Probe.	
Logged By: Brandon Shaw	Date Started: 01/25/06
Completed: 01/25/06	
Checked By: CRJ	Date: 4/3/06



Lock Identification: Flush Mount

Surface Casing Type: Steel

Ground Surface Elevation: Same as TOC

Surface Casing Diameter: 4"

Inside Diameter of Surface Casing: 3 7/8"

Depth/Elevation of Top of Well Seal: 0' / NA

Depth/Elevation of Top of Sand: N/A /

Depth/Elevation of Top of Screen: 6.8 / 927.7' msl

Depth/Elevation of Bottom of Screen: 18' / 917.7' msl

Depth/Elevation of Bottom of Boring: 24.0 / 910.5' msl

Elevation of top of Surface Casing: 934.48' msl

Elevation of top of Riser Pipe: 934.25' msl

Type of Surface Seal: Road Box, Black Top Patch.

Borehole Diameter: 1 1/2"

Inside Diameter of Borehole Casing: 1/2"

Type of Backfill: Cave in

Type of Riser: Sch 40 PVC

Riser Inside Diameter: 1"

Type of Seal: Bentonite Seal

Type of Sand Pack: N/A

Type of Screen: Slotted PVC

Slot Size x Length: 0.010" x 10'

Inside Diameter of Screen: 1"

Depth of Sediment Sump with Plug: /

Not To Scale

FIGURE

MACTEC Engineering and Consulting, Inc.

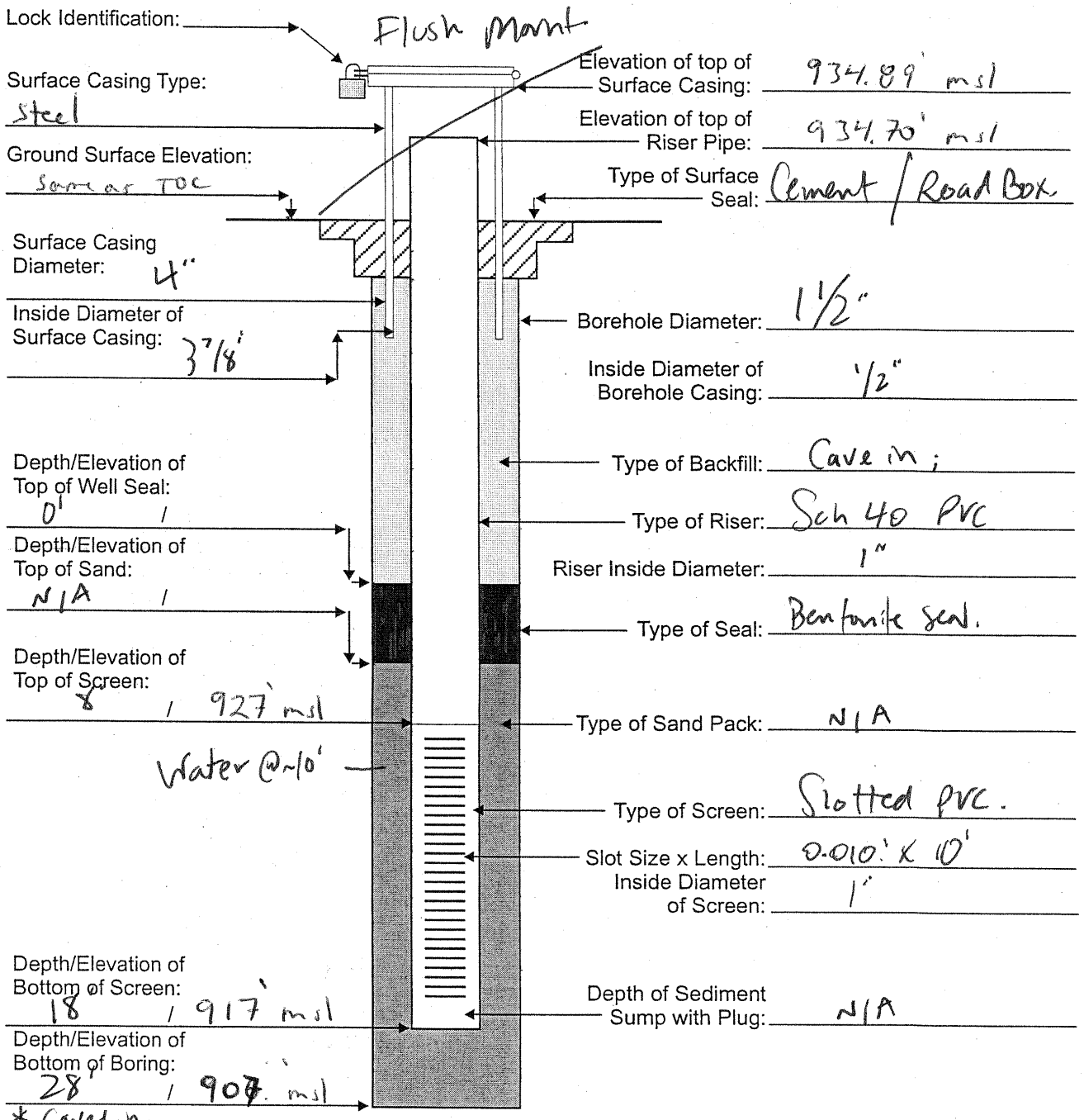
Graphics\Misc.\Forms

02/09/06: First Round of water levels:
BOB @ 16.87' ; D to W: 11.08'

Monitoring Well Log (Stick Up Type)

Well No.: GW-10 / MW-10

Project No.: 36120052036	Project Name: NYSDEC Region 8 Dry Cleaners		
	Project Area: Crystal Cleaners		
Contractor: ADT	Driller: Marty B.	Method: Direct Push - Geo Probe.	
Logged By: Brendan Shaw		Date Started: 01/24/06	Completed: 01/24/06
Checked By: CRS	Date: 4/3/06	CRGW0002601XX @ 1740.	



Lock Identification: Flush Mount

Surface Casing Type: Steel

Ground Surface Elevation: Same as TOC

Surface Casing Diameter: 4"

Inside Diameter of Surface Casing: 3 7/8"

Depth/Elevation of Top of Well Seal: 0' / ____

Depth/Elevation of Top of Sand: N/A / ____

Depth/Elevation of Top of Screen: 8' / 927' msl

Depth/Elevation of Bottom of Screen: 18' / 917' msl

Depth/Elevation of Bottom of Boring: 28' / 907' msl

Elevation of top of Surface Casing: 934.89' msl

Elevation of top of Riser Pipe: 934.70' msl

Type of Surface Seal: Cement / Road Box

Borehole Diameter: 1 1/2"

Inside Diameter of Borehole Casing: 1/2"

Type of Backfill: Cave in;

Type of Riser: Sch 40 PVC

Riser Inside Diameter: 1"

Type of Seal: Bentonite seal.

Type of Sand Pack: N/A

Type of Screen: Slotted PVC.

Slot Size x Length: 0.010" x 10'

Inside Diameter of Screen: 1"

Depth of Sediment Sump with Plug: N/A

Not To Scale

FIGURE

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

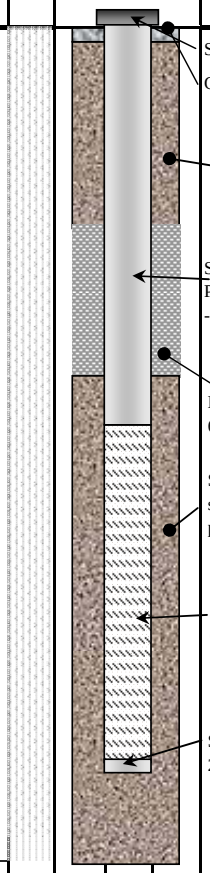
02/10/06: First Round of water levels (outside of 24 hr window).
DTW: 11.62; BOB: not recorded

Microwell Completion Log

Well No: GW-18

Project No.: 3612052036	**Project:** Region 8 Group 1 - Crystal	**Checked By:** C. Staples	
Client Name: NYSDEC	**Logged By:** SHAW	**Protection Level:** D	**Ground Elevation:** 938.02
Drilling Contractor: GEOLOGIC	**Drilling Method:** DIRECT PUSH		**Driller's Name:** JOE MENSEL
Bit Type/Size: GEOPROBE ROD - 1 1/2"	**Soil Drilled:** 22'	**Rig Type:** 66DT Track Rig	**Start Date:** 11/2/2006 / **Finish Date:** 11/2/2006
Bedrock Interval N/A		**P.I.D. (eV): NA**	**Casing Size** N/A / **Auger Size:** 2"

Depth (feet) | Recovery | Sample ID | Graphic Log | Well Diagram | Well Construction Notes



Notes:

Well Construction Notes: (all depths in feet from ground surface)

Depth to Water Levels:

11/02/2006: 16.25' (bgs)

Top of Riser elevation = 937.76

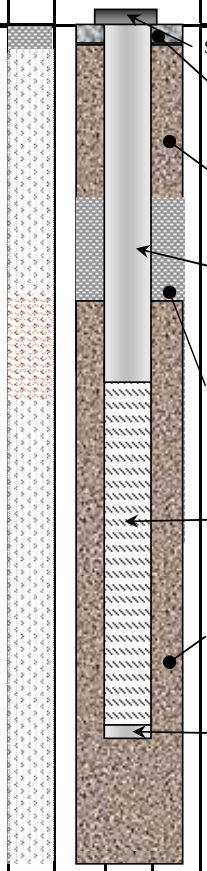
BOW: 22.02'

Microwell Completion Log

Well No: GW-19

Project No.: 3612052036	**Project:** Region 8 Group 1 - Crystal	**Checked By:** C. Staples	
Client Name: NYSDEC	**Logged By:** SHAW	**Protection Level:** D	**Ground Elevation:** 939.12
Drilling Contractor: GEOLOGIC	**Drilling Method:** DIRECT PUSH	**Driller's Name:** JOE MENSEL	
Bit Type/Size: GEOPROBE ROD - 1 1/2"	**Soil Drilled:** 24.5'	**Rig Type:** 66DT Track Rig	**Start Date:** 11/1/2006 / **Finish Date:** 11/1/2006
Bedrock Interval N/A		**P.I.D. (eV): NA**	**Casing Size** N/A / **Auger Size:** 2"

Depth (feet) | Recovery | Sample ID | Graphic Log | Well Diagram | Well Construction Notes



Notes:

Well Construction Notes: (all depths in feet from ground surface)

Depth to Water Levels:

11/02/2006: 15.02' (bgs)

Top of Riser Elevation = 938.75

BOW: 20.87 (bgs)
TD = 24.5' (bgs)

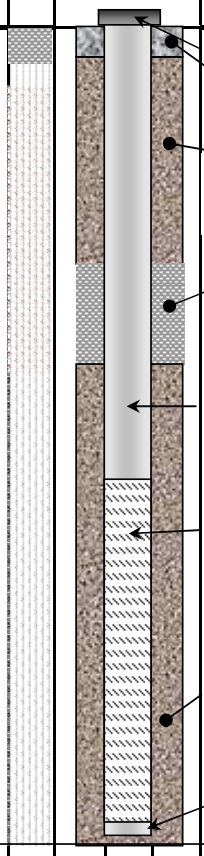
MACTEC

Microwell Completion Log

Well No: GW-23

Project No.: 3612052036	**Project:** Region 8 Group 1 - Crystal	**Checked By:** C. Staples	
Client Name: NYSDEC	**Logged By:** SHAW	**Protection Level:** D	**Ground Elevation:** 938.35
Drilling Contractor: GEOLOGIC	**Drilling Method:** DIRECT PUSH		**Driller's Name:** JOE MENSEL
Bit Type/Size: GEOPROBE ROD - 1 1/2"	**Soil Drilled:** 24	**Rig Type:** 66 DT Track Rig	**Start Date:** 11/2/2006 / **Finish Date:** 11/2/2006
Bedrock Interval N/A		**P.I.D. (eV): NA**	**Casing Size** N/A / **Auger Size:** 2"

Depth (feet) | Recovery | Sample ID | Graphic Log | Well Diagram | Well Construction Notes



Notes:

Well Construction Notes: (all depths in feet from ground surface)

Depth to Water Levels:

11/02/2006: 14.79' bgs

Top of Riser Elevation = 938.11

BOW: 23.61
TD = 24.0'

MACTEC

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Chrysler Cleaners
Project Number: 361205.2036 Date: January 23, 2006
Time: Start: 1145 End: 1335
Sample Location ID: GW-00 Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

GW Grab w/ Geo Probe

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (__in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Yes No
Prot. Casing Secure ___ ___
Concrete Collar Intact ___ ___
Other _____ ___ ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
___	✓	Peristaltic Pump	_____
___	___	Submersible Pump	_____
___	___	Bailer	_____
✓	✓	PVC/Silicon Tubing	_____
✓	✓	Teflon/Silicon Tubing	_____
___	___	Airlift	_____
___	___	Hand Pump	_____
___	___	In-line Filter	_____
___	___	Press/Vac Filter	_____
___	___		_____

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Dispos. Tubing

Field Analysis Data

PID: Ambient Air 1.0 ppm Well Mouth 1.0 ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Time Purge Data	@ 1429 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	12.6				
pH, units	7.5				
Specific Conductivity (µmhos/cm)	0.545				
Turbidity (NTUS)	21000				
Oxidation - Reduction, +/- mv	-6				
Dissolved Oxygen, ppm	2.12				

Depth

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW001026 01 XX @ 1430
___ SVOCs	___	4°C	2x1 liter AG	CRGW001026 01 MD @ 1430
___ Metals	___	HNO_3,4°C	1x1 liter P	CRGW001026 01 MS @ 1430
___ Cyanide	___	NaOH,4°C	1x500mLP	~~CRGW0010 01 XA @~~
___ Nitrate/Sulfate	___	H_2SO_4,4°C	1x1 liter P	CRGS001006 01 XX @ 1210
___ Nitrate/Phosphate	___	H_2SO_4,4°C	1x1 liter P	CRGS001006 01 MS @ 1210
___ Pest/PCB	___	4°C	3x1 liter AG	CRGS001006 01 MD @ 1210
___ TPH	___	H_2SO_4,4°C	2x1 liter AG	
___ TOC	___	H_2SO_4,4°C	1x1 liter P	

Notes: 12 GW Samples @ 1265 and 1 Subsurface Soil Samples @ Both Matrices (Gw + Soil) will collect MS, MSD samples here also

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

9404014D L.22

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Crystal Cleaners
Project Number: 361205.2036 Date: January 25, 2006
Time: Start: 0805 End: 0940
Sample Location ID: GW-002 Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing ___ ___
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
GW Grab w/ Geo Probe
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (___ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity:

	Yes	No
Prot. Casing Secure	___	___
Concrete Collar Intact	___	___
Other _____	___	___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
—	✓	Peristaltic Pump	
—	—	Submersible Pump	
✓	—	Bailer	
✓	✓	PVC/Silicon Tubing	
✓	✓	Teflon/Silicon Tubing	
—	—	Airlift	
—	—	Hand Pump	
—	—	In-line Filter	
—	—	Press/Vac Filter	
—	—		
—	—		

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Disps. Tubing

Field Analysis Data

PID: Ambient Air 1.0 ppm Well Mouth 1.0 ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Time	Purge Data @ 0858 Gal.	@ 0925 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	12.7	11.2			
pH, units	7.5	7.0			
Specific Conductivity (µmhos/cm)	0.746	0.450			
Turbidity (NTUS)	>1000	>1000			
Oxidation - Reduction, +/- mv	-40	87			
Dissolved Oxygen, ppm	26.1	3.40			
Depth	24-28'	20-16'			

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl ✓	2x40 ml	CRGW002026011XX @ 0900
___ SVOCs	___	4°C	2x1 liter AG	
___ Metals	___	HNO_3, 4°C	1x1 liter P	CRGW002018 01XA @ 0930
___ Cyanide	___	NaOH, 4°C	1x500mL P	
___ Nitrate/Sulfate	___	H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4, 4°C	2x1 liter AG	
___ TOC	___	H_2SO_4, 4°C	1x1 liter P	

Notes: 2 Depths: @ 26' and 18'

- petrol. Sheen on purge water.

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Chrystal Cleaners
Project Number: 361205.2036 Date: January 25, 2006
Time: Start: 0935 End: 1115
Sample Location ID: GW-083 Signature of Sampler: [signature]

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

GW Grab w/ Geo Probe

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ __ Gal/Ft. (__ in.) = _____ Gal/Vol. / _____ Total Gal Purged

Well Integrity: Yes No
Prot. Casing Secure ___ ___
Concrete Collar Intact ___ ___
Other _____ ___ ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
___	✓	Peristaltic Pump	
___	___	Submersible Pump	
✓	✓	Bailer	
✓	✓	PVC/Silicon Tubing	
✓	✓	Teflon/Silicon Tubing	
___	___	Airlift	
___	___	Hand Pump	
___	___	In-line Filter	
___	___	Press/Vac Filter	
___	___		

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Disp. Tubing

Field Analysis Data

PID: Ambient Air 41.0 ppm Well Mouth 41.0 ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ___ Turbid ___ Clear ✓ Cloudy ___ Colored ___ Odor

Time / Purge Data	@ 1045 Gal.	@ 1108 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	11.4	11.2				
pH, units	6.8	6.9				
Specific Conductivity (µmhos/cm)	0.771	0.402				
Turbidity (NTUS)	665	>1000				
Oxidation - Reduction, +/- mv	60	85				
Dissolved Oxygen, ppm	1.74	5.05				
Depth	24'-28'	20'-16'				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW603026 01KL@1050
___ SVOCs	___	4°C	2x1 liter AG	
___ Metals	___	HNO_3, 4°C	1x1 liter P	CRGW603088 01XAW1110
___ Cyanide	___	NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate	___	H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4, 4°C	2x1 liter AG	
___ TOC	___	H_2SO_4, 4°C	1x1 liter P	

Notes: 2 Depths @ : 26' and 18'
- ferric/manganese sheen on purge water

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

9404014D L22

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaner
Project Number: 361265.2036
Site: Crystal Cleaners
Date: January 26, 2006
Time: Start: 0730 End: 1130
Sample Location ID: GW-004
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing ___ _____
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Direct push w/ Geo Probe
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (___ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity:

	Yes	No
Prot. Casing Secure	___	___
Concrete Collar Intact	___	___
Other _____	___	___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
—	—	Submersible Pump	
—	—	Bailer	
✓	✓	PVC/Silicon Tubing	
✓	✓	Teflon/Silicon Tubing	
—	—	Airlift	
—	—	Hand Pump	
—	—	In-line Filter	
—	—	Press/Vac Filter	
—	—		

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Disp. Tubing

Field Analysis Data

PID: Ambient Air 1.0 ppm Well Mouth 1.0 ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ✓ Cloudy ___ Colored ___ Odor

Time / Purge Data	@ 0928 / 13.8 Gal.	@ 1025 / 7.5 Gal.	@ 1105 / 10.1 Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	7.3	7.3	7.0		
pH, units	1.20	2.07	2.18		
Specific Conductivity (µmhos/cm)	816	>1000	>1000		
Turbidity (NTUS)	-15	160	175		
Oxidation - Reduction, +/- mv	0.17	6.15	7.1		
Dissolved Oxygen, ppm					
Depth:	32-28'	20'	12'		

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW004030 01XXC 0930
___ SVOCs		4°C	2x1 liter AG	CRGW004028 01XAC 1110
___ Metals		HNO_3, 4°C	1x1 liter P	CRGW004020 01XBC 1030
___ Cyanide		NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	CRGS004007 01XXC 0815
___ Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	CRGS004007 01XDC 0815
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4, 4°C	2x1 liter AG	
___ TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: 3 Depths @: 30' and 20' and 12'

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

9404014D L22

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Crystal Cleaners
Project Number: 361205.2036 Date: January 25, 2006
Time: Start: 1120 End: 1300
Sample Location ID: GW-005 Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Dikes Push using a Geo Probe
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (___ in.) = _____ Gal/Vol. / _____ Total Gal Purged

Well Integrity:	Yes	No
Prot. Casing Secure	___	___
Concrete Collar Intact	___	___
Other _____	___	___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
—	—	Submersible Pump	
—	—	Bailer	
✓	✓	PVC/Silicon Tubing	
✓	✓	Teflon/Silicon Tubing	
—	—	Airlift	
—	—	Hand Pump	
—	—	In-line Filter	
—	—	Press/Vac Filter	
—	—		
—	—		

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
___ Disposable Tubing
___ _____

Field Analysis Data

PID: Ambient Air <1.0 ppm Well Mouth <1.0 ppm Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Colored ___ Cloudy ___ Odor

Time / Purge Data	@ 1241 Gal.	@ 1320 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	13.0	11.6			
pH, units	7.5	6.8			
Specific Conductivity (µmhos/cm)	2.3	2.23			
Turbidity (NTUS)	>1000	>1000			
Oxidation - Reduction, +/- mv	64	100			
Dissolved Oxygen, ppm	10.2	2.37			

Depth: 28-24 20-16 / 18' to 14'

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C HCl	2x40 ml	CRGW005026 01 XX @ 1245
___ SVOCs		4°C	2x1 liter AG	CRGW005016 01 XD @ 1330
___ Metals		HNO_3, 4°C	1x1 liter P	CRGW005016 01 XA @ 1330
___ Cyanide		NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	CRGS005008 01 XX @ 1200
___ Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4, 4°C	2x1 liter AG	
___ TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: 2 Depths @ 26' and 16'
- Duplicate were
- ferric Sheen on water

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Crystal Cleaners
Project Number: 361205 2036 Date: January 25, 2006
Time: Start: 1414 End: 1530
Sample Location ID: GW-0006 Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective Casing/Well Difference _____ Ft.
Protective Casing _____ Ft.

Direct Push using Geo Probe

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (___ in.) = _____ Gal/Vol. / _____ Total Gal Purged

Well Integrity:

	Yes	No
Prot. Casing Secure	___	___
Concrete Collar Intact	___	___
Other _____	___	___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
—	—	Submersible Pump	
—	—	Bailer	
✓	✓	PVC/Silicon Tubing	
✓	✓	Teflon/Silicon Tubing	
—	—	Airlift	
—	—	Hand Pump	
—	—	In-line Filter	
—	—	Press/Vac Filter	
—	—		

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Disp. Tubing
___ _____

Field Analysis Data

PID: Ambient Air <1.0 ppm Well Mouth <1.0 ppm Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Colored ___ Clear ___ Odor ✓ Cloudy

Time Purge Data	@ 1458 Gal.	@ 1519 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	No Parameters	11.4			
pH, units		7.0			
Specific Conductivity (µmhos/cm)		2.07			
Turbidity (NTUS)		>1000			
Oxidation - Reduction, +/- mv		170			
Dissolved Oxygen, ppm		6.67			
Depth:	20'-24'	12'-16'			

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	2x40 ml	GRGW0060220 1XX@1500
___ SVOCs	___	4°C	2x1 liter AG	
___ Metals	___	HNO_3,4°C	1x1 liter P	GRGW0060140 1XA@1520
___ Cyanide	___	NaOH,4°C	1x500mLP	
___ Nitrate/Sulfate	___	H_2SO_4,4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4,4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4,4°C	2x1 liter AG	
___ TOC	___	H_2SO_4,4°C	1x1 liter P	

Notes: 2 Depths @: 22' and 14'

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Crystal Cleaners
Project Number: 361205.2036 Date: January 23, 2006
Time: Start: 0740 End: 1005
Sample Location ID: GW-007 Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

GW Grab w/ Geo Probe

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (___ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Prot. Casing Secure (Yes ___ No ___) Concrete Collar Intact (Yes ___ No ___) Other _____ (Yes ___ No ___)

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
	✓	Peristaltic Pump	
		Submersible Pump	
✓		Bailer	
✓	✓	PVC/Silicon Tubing	
✓	✓	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Disps. Tubing

Field Analysis Data

PID: Ambient Air 1.0 ppm Well Mouth 1.6 ppm
Purge Data Collected ✓ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Time / Purge Data	@ 0917 Gal.	@ 0952 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	14.1	13.9			
pH, units	6.6	7.1			
Specific Conductivity (µmhos/cm)	1.1	1.99			
Turbidity (NTUS)	>1000	>1600			
Oxidation - Reduction, +/- mv	-10	-19			
Dissolved Oxygen, ppm	<0.1	<0.1			
Depth	32-36'	20-24'			

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW007034011KK @ 920
___ SVOCs		4°C	2x1 liter AG	CRGW007034011KDR 920
___ Metals		HNO_3, 4°C	1x1 liter P	
___ Cyanide		NaOH, 4°C	1x500mLP	CRGW007022011XA @ 1600
___ Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4, 4°C	2x1 liter AG	
___ TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: This pt was switch on map w/ GW-8! The SW corner of Crystal Cleaners parking lot
Dup. taken here

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

9404014D L22

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Kram 8 Dry Cleaners Site: Chys: Cleaners
Project Number: 36.2052036 Date: January 23, 2006
Time: Start: 1653 End: 1815
Sample Location ID: GW-008 Signature of Sampler

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing
GW Grab w/ Geo Probe
Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____
Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ __ Gal/Ft. (__in.) = _____ Gal/Vol. _____ Total Gal Purged
Well Integrity: Prot. Casing Secure; Concrete Collar Intact; Other _____ — Yes ___ No ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
✓	✓	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Dspos. Tubing

Field Analysis Data

PID: Ambient Air 4.0 ppm Well Mouth 4.0 ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ___ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Time / Purge Data	@ 1745 Gal.	@ ~~9~~ Gal.	@ 1805 Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	13.9	~~13.99~~	12.6		
pH, units	7.5		7.5		
Specific Conductivity (µmhos/cm)	1.20		1.44		
Turbidity (NTUS)	21000		21000		
Oxidation - Reduction, +/- mv	-77		-60		
Dissolved Oxygen, ppm	<0.1		<0.1		
Depth	39.5 - 35.5		27.5 - 23.4		

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW008037O1KX@1750
___ SVOCs		4°C	2x1 liter AG	CRGW008037O1MS@1750
___ Metals		HNO_3, 4°C	1x1 liter P	CRGW008037OMD@1750
___ Cyanide		NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	CRGW008037O1XA@1810
___ Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4, 4°C	2x1 liter AG	
___ TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: Collecting MS, MSD.
2 Depths @: 25' and 37'

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

9404014D L22

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners
Project Number: 361205.2036
Site: Crystal Cleaners
Date: January 25, 2006
Time: Start: 1550 End: 1710
Sample Location ID: GW-009
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Direct push w/ Geo probe
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ __ Gal/Ft. (__in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity:

	Yes	No
Prot. Casing Secure	___	___
Concrete Collar Intact	___	___
Other _____	___	___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
—	—	Submersible Pump	
—	—	Bailer	
✓	✓	PVC/Silicon Tubing	
✓	—	Teflon/Silicon Tubing	
—	—	Airlift	
—	—	Hand Pump	
—	—	In-line Filter	
—	—	Press/Vac Filter	
—	—		
—	—		

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Disp. Tubing

Field Analysis Data

PID: Ambient Air 4.0 ppm Well Mouth 4.0 ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Time / Purge Data	@ 1626 Gal.	@ 1650 Gal.	@ ____ Gal.	@ ____ Gal.	@ ____ Gal.
Temperature, Deg. C	12.3	8.9			
pH, units	7.2	6.9			
Specific Conductivity (µmhos/cm)	0.92	1.46			
Turbidity (NTUS)	>1000	>1600			
Oxidation - Reduction, +/- mv	0	85			
Dissolved Oxygen, ppm	<0.1	1.72			
Depth:	20-24'	12-16'			

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	2x40 ml	CRGW009022201 XX @1630
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO3, 4°C	1x1 liter P	CRGW009014 01 XA @1655
___ Cyanide		NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4, 4°C	2x1 liter AG	
___ TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: 2 Depths @: 22' and 14'.
-Petrol. Sheen on purge water.

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Chrystal Cleaners
Project Number: 36120532036 Date: January 23, 2006
Time: Start: 1710 End: 1830
Sample Location ID: MW-010 Signature of Sampler: [signature]

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
GW Grp w/ Geo Probe
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ __ Gal/Ft. (__in.) = _____ Gal/Vol. / _____ Total Gal Purged

Well Integrity: Yes / No
Prot. Casing Secure ___ / ___
Concrete Collar Intact ___ / ___
Other _____ ___ / ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
✓	✓	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used: (✓ All That Apply at Location)

- ___ Methanol (100%)
- ___ 25% Methanol/75% ASTM Type II water
- ___ Deionized Water
- ___ Liquinox Solution
- ___ Hexane
- ___ HNO_3/D.I. Water Solution
- ___ Potable Water
- ✓ None
- ✓ Disp. Tubing

Field Analysis Data

PID: Ambient Air <1.0 ppm Well Mouth 4.0 ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ✓ Odor - Petrol

Time Purge Data	@ 1739 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	7.3				
pH, units	7.7				
Specific Conductivity (µmhos/cm)	0.014				
Turbidity (NTUS)	>1000				
Oxidation - Reduction, +/- mv	38				
Dissolved Oxygen, ppm	<0.1				

Depth 28-24.

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW0100260 1X4@ 1740
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3, 4°C	1x1 liter P	
___ Cyanide		NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4, 4°C	2x1 liter AG	
___ TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: 2 Depths: 26' and N/A
- Not much water @ 26'

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

9404014D L22

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Crystal Cleaners
Project Number: 361205.2036 Date: January 23, 2006
Time: Start: 1010 End: 1140
Sample Location ID: GW-01 Signature of Sampler: [signature]

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
GW Grab w/ Geo Probe
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (__in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Prot. Casing Secure; Concrete Collar Intact; Other _____

	Yes	No
Prot. Casing Secure	___	___
Concrete Collar Intact	___	___
Other	___	___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
___	✓	Peristaltic Pump	_____
___	___	Submersible Pump	_____
✓	✓	Bailer	_____
✓	✓	PVC/Silicon Tubing	_____
___	✓	Teflon/Silicon Tubing	_____
___	___	Airlift	_____
___	___	Hand Pump	_____
___	___	In-line Filter	_____
___	___	Press/Vac Filter	_____
___	___		_____

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Dspos. Tubing

Field Analysis Data

PID: Ambient Air 1.0 ppm Well Mouth 1.0 ppm Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ✓ Cloudy ___ Colored ___ Odor @ 22'.

Time	Purge Data @ 1100 Gal.	@ 1125 Gal.	@ ____ Gal.	@ ____ Gal.	@ ____ Gal.	@ ____ Gal.
Temperature, Deg. C	12.7	7.3				
pH, units	7.6	7.9				
Specific Conductivity (µmhos/cm)	0.636	0.648				
Turbidity (NTUS)	>1000	>1000				
Oxidation - Reduction, +/- mv	-70	65				
Dissolved Oxygen, ppm	<0.1	7.92				
Depth	28-22'	20-24'				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW011003001XX@ 1115
___ SVOCs	___	4°C	2x1 liter AG	
___ Metals	___	HNO_3, 4°C	1x1 liter P	CRGW011022 01XA @ 1130
___ Cyanide	___	NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate	___	H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4, 4°C	2x1 liter AG	
___ TOC	___	H_2SO_4, 4°C	1x1 liter P	

Notes: 2 Depths: @30' and 22'
- Sheen on purge water.
- 22' Sample: GW water Sample cleared to ~50 NTUs by end of Sampling.

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Chysi Cleaners
Project Number: 361205.2036 Date: January 23, 2006
Time: Start: 1540 End: 1650
Sample Location ID: GW-10(2) Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing ___ _____
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

GW Grab w/ Geo Probe

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS ___ _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (___ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Yes No
Prot. Casing Secure ___ ___
Concrete Collar Intact ___ ___
Other _____ ___ ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
___	✓	Peristaltic Pump	_____
___	___	Submersible Pump	_____
✓	✓	Bailer	_____
✓	✓	PVC/Silicon Tubing	_____
___	✓	Teflon/Silicon Tubing	_____
___	___	Airlift	_____
___	___	Hand Pump	_____
___	___	In-line Filter	_____
___	___	Press/Vac Filter	_____
___	___		_____

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Disps. Tubing
___ _____

Field Analysis Data

PID: Ambient Air 4.0 ppm Well Mouth 4.0 ppm Purge Data Collected ___ In-line ✓ In Container

Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Time / Purge Data	@ 1620 Gal.	@ 1640 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	14.0	13.6			
pH, units	7.4	6.9			
Specific Conductivity (µmhos/cm)	1.43	2.38			
Turbidity (NTUS)	>1000	>1000			
Oxidation - Reduction, +/- mv	-64	24			
Dissolved Oxygen, ppm	<0.1	<0.1			
Depth	32'-36'	20'-24'			

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW012034 01XK @ 1630
___ SVOCs	___	4°C	2x1 liter AG	CRGW012034 01XA @ 1645
___ Metals	___	HNO_3, 4°C	1x1 liter P	
___ Cyanide	___	NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate	___	H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4, 4°C	2x1 liter AG	
___ TOC	___	H_2SO_4, 4°C	1x1 liter P	

Notes: 2 Depths: @ 34' and 22'

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

9404014D L22

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Chyster Cleaners
Project Number: 361205.2036 Date: January 23, 2006
Time: Start: 1520 End: 1700
Sample Location ID: GW-013 Signature of Sampler: [signature]

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

GW Grab w/ Geo Probe

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ __ Gal/Ft. (__in.) = _____ Gal/Vol. / _____ Total Gal Purged

Well Integrity: Prot. Casing Secure — Yes ___ No ___
Concrete Collar Intact — Yes ___ No ___
Other _____ — Yes ___ No ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
___	✓	Peristaltic Pump	_____
___	___	Submersible Pump	_____
___	___	Bailer	_____
✓	✓	PVC/Silicon Tubing	_____
✓	✓	Teflon/Silicon Tubing	_____
___	___	Airlift	_____
___	___	Hand Pump	_____
___	___	In-line Filter	_____
___	___	Press/Vac Filter	_____
___	___		_____

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Disps. Tubing

Field Analysis Data

PID: Ambient Air <1.0 ppm Well Mouth <1.0 ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ✓ Cloudy ___ Colored ___ Odor

Time / Purge Data	@ 1628 Gal.	@ 1648 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	13.5	12.2			
pH, units	7.2	6.9			
Specific Conductivity (µmhos/cm)	3.34	5.30			
Turbidity (NTUS)	21000	71000			
Oxidation - Reduction, +/- mv	-77	-55			
Dissolved Oxygen, ppm	<0.1	<0.1			
Depth	23-27'	14-15'			

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	ORGW013025 01 KK @ 1630
___ SVOCs	___	4°C	2x1 liter AG	
___ Metals	___	HNO_3, 4°C	1x1 liter P	ORGW013017 01 KK @ 1650
___ Cyanide	___	NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate	___	H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4, 4°C	2x1 liter AG	
___ TOC	___	H_2SO_4, 4°C	1x1 liter P	
	___			

Notes: 2 Depths @ 25' and 17'
- purge water had sheen on it.

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

9404014D L22

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Ron 8 Dry Cleaners Site: Chys: Cleaners
Project Number: 361205.2036 Date: January 23, 2006
Time: Start: 1415 End: 1525
Sample Location ID: GW-0114 Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing ___ _____
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

GW Grab w/ Geo Probe

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ __ Gal/Ft. (__ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Yes No
Prot. Casing Secure ___ ___
Concrete Collar Intact ___ ___
Other _____ ___ ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
___	___	Peristaltic Pump	_____
___	___	Submersible Pump	_____
✓	✓	Bailer	_____
✓	✓	PVC/Silicon Tubing	_____
✓	✓	Teflon/Silicon Tubing	_____
___	___	Airlift	_____
___	___	Hand Pump	_____
___	___	In-line Filter	_____
___	___	Press/Vac Filter	_____
___	___		_____

Decontamination Fluids Used: (✓ All That Apply at Location)

___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Disps. Tubing

Field Analysis Data

PID: Ambient Air 41.0 ppm Well Mouth 41.0 ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Time Purge Data @ 1458 Gal.	@ 1515 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C 13.7	17.9				
pH, units 7.4	7.5				
Specific Conductivity (µmhos/cm) 0.954	0.841				
Turbidity (NTUS) >1000	>1000				
Oxidation - Reduction, +/- mv -9	-30				
Dissolved Oxygen, ppm 0.67	LO.1				
Depth 28' to 32'	20 to 24'				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW0140300 1XX C-1500
___ SVOCs	___	4°C	2x1 liter AG	
___ Metals	___	HNO_3,4°C	1x1 liter P	CRGW0140220 1XA C-1520
___ Cyanide	___	NaOH,4°C	1x500mLP	
___ Nitrate/Sulfate	___	H_2SO_4,4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4,4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4,4°C	2x1 liter AG	
___ TOC	___	H_2SO_4,4°C	1x1 liter P	

Notes: 2 Depths @ 30' and 22'

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

9404014D L22

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Crystal Cleaners
Project Number: 361205 2036 Date: January 23, 2004
Time: Start: 1300 End: 1410
Sample Location ID: GW-0115 Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical ___ Top of Well ___ Top of Protective Casing Well Riser Stick-up _____ Ft. (from ground) Protective _____ Ft. Casing/Well Difference Protective _____ Ft. Casing

Depth to Water _____ Ft. Well Material: ___ PVC ___ SS _____ Well Locked?: ___ Yes ___ No Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____ Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Groundwater Grab
✓ Geo Probe

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ __ Gal/Ft. (__in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity:

	Yes	No
Prot. Casing Secure	___	___
Concrete Collar Intact	___	___
Other _____	___	___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
—	—	Submersible Pump	
—	—	Bailer	
✓	✓	PVC/Silicon Tubing	
✓	✓	Teflon/Silicon Tubing	
—	—	Airlift	
—	—	Hand Pump	
—	—	In-line Filter	
—	—	Press/Vac Filter	
—	—		

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None — Disp. Tubing

Field Analysis Data

PID: Ambient Air 1.6 ppm Well Mouth 1.0 ppm Purge Data Collected ___ In-line ✓ In Container

Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Time / Purge Data	@ 1239 Gal. ✓	@ 1355 Gal. ✓	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	12.2	11.8				
pH, units	7.4	7.5				
Specific Conductivity (µmhos/cm)	1.44	1.40				
Turbidity (NTUS)	>1000	>1000				
Oxidation - Reduction, +/- mv	-60	-23				
Dissolved Oxygen, ppm	<0.1	<0.1				
Depth	21-23'	23-19'				

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW0150251 01XK @ 1350
___ SVOCs	___	4°C	2x1 liter AG	
___ Metals	___	HNO_3, 4°C	1x1 liter P	CRGW0150211 01XA @ 1400
___ Cyanide	___	NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate	___	H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4, 4°C	2x1 liter AG	
___ TOC	___	H_2SO_4, 4°C	1x1 liter P	

Notes: 2 Depths @ 25' and 21'

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Krom & Dry Cleaners Site: Chys: Cleaners
Project Number: 36120532036 Date: January 23, 2006
Time: Start: 1132 End: 1245
Sample Location ID: GW-016 Signature of Sampler

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing ___ _____
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
GW Grab w/ Geo Probe
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ __ Gal/Ft. (__in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Yes No
Prot. Casing Secure ___ ___
Concrete Collar Intact ___ ___
Other _____ ___ ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
✓	✓	Bailer	
✓	✓	PVC/Silicon Tubing	
✓	✓	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Dispos. Tubing

Field Analysis Data

PID: Ambient Air 1.0 ppm Well Mouth 1.0 ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Time	Purge Data @ 1221 Gal.	@ 1238 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	12.0	11.4			
pH, units	7.5	7.5			
Specific Conductivity (µmhos/cm)	1.33	1.30			
Turbidity (NTUS)	>1000	2100			
Oxidation - Reduction, +/- mv	19.	34			
Dissolved Oxygen, ppm	<0.1	0.61			
Depth	23.5-19.5'	19.5-15.5'			

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW016021 01XX@1215
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3, 4°C	1x1 liter P	CRGW016017 01XA@1240
___ Cyanide		NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4, 4°C	2x1 liter AG	
___ TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: 2 Depths: 21' and 17'

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

9404014D L22

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Crystal Cleaners
Project Number: 361205.2036 Date: January 23, 2006
Time: Start: 1005 End: 1130
Sample Location ID: GW-017
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

GW Grab w/ Geo Probe

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (__in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Yes No
Prot. Casing Secure ___ ___
Concrete Collar Intact ___ ___
Other _____ ___ ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
	✓	Peristaltic Pump	
		Submersible Pump	
✓		Bailer	
✓	✓	PVC/Silicon Tubing	
✓	✓	Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None
✓ Dspos. Tubing

Field Analysis Data

PID: Ambient Air 0.0 ppm Well Mouth 1.0 ppm Purge Data Collected ___ In-line ✓ In Container

Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Time / Purge Data	@ 1110 Gal.	@ 1125 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	12.5	9.9			
pH, units	7.1	7.1			
Specific Conductivity (µmhos/cm)	1.52	1.49			
Turbidity (NTUS)	>1000	2000			
Oxidation - Reduction, +/- mv	40	-3			
Dissolved Oxygen, ppm	<1.0	<1.0			
Depth	20'-18'	18'-16'			

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C/HCl	2x40 ml	CRGW017020 01XX @ 1115
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3,4°C	1x1 liter P	CRGW017016 01XA @ 1130
___ Cyanide		NaOH,4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4,4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4,4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4,4°C	2x1 liter AG	
___ TOC		H_2SO_4,4°C	1x1 liter P	

Notes: 2 Depths @ 20' and 16'

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Crystal Cleaners
Project Number: 361205.2036 Date: January 23, 2006
Time: Start: 0950 End: 1005
Sample Location ID: SW-001 Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Surface water Sample
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (___ in.) = _____ Gal/Vol. / _____ Total Gal Purged

Well Integrity:

	Yes	No
Prot. Casing Secure	___	___
Concrete Collar Intact	___	___
Other _____	___	___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
___	___	Peristaltic Pump	_____
___	___	Submersible Pump	_____
___	___	Bailer	_____
___	___	PVC/Silicon Tubing	_____
___	___	Teflon/Silicon Tubing	_____
___	___	Airlift	_____
___	___	Hand Pump	_____
___	___	In-line Filter	_____
___	___	Press/Vac Filter	_____
✓	✓	None	_____

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
✓ Potable Water
___ None
___ _____
___ _____

Field Analysis Data

PID: Ambient Air 1.0 ppm Well Mouth 1.0 ppm
Purge Data Collected: ✓ In-line ✓ In Container
Sample Observations: ___ Turbid ✓ Colored ___ Clear ___ Cloudy ___ Odor

Time	Purge Data @ 0958 Gal.	@ 1000 Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.
Temperature, Deg. C	13.4					
pH, units	7.9					
Specific Conductivity (µmhos/cm)	1.56	Sample				
Turbidity (NTUS)	6.01					
Oxidation - Reduction, +/- mv	170					
Dissolved Oxygen, ppm	6.8 6.7					

Depth

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C /HCl	2x40 ml	CRSW001000001XL @ 1000
___ SVOCs	___	4°C	2x1 liter AG	CRSW001000001MSC 1000
___ Metals	___	HNO_3,4°C	1x1 liter P	CRSW001000001MSD @ 1000
___ Cyanide	___	NaOH,4°C	1x500mLP	
___ Nitrate/Sulfate	___	H_2SO_4,4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4,4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4,4°C	2x1 liter AG	
___ TOC	___	H_2SO_4,4°C	1x1 liter P	
	___			

Notes: Collecting dup, MS, MSD
- Sump pump area in basement of Crystal.
- Inst in open water

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: NYSDEC - Region 8 Dry Cleaners Site: Crystal Cleaners
Project Number: 361205.2036 Date: January 23, 2006
Time: Start: 0936 End: 0950
Sample Location ID: SW-002 Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Surface water sample.

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (___ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Prot. Casing Secure — Yes ___ No ___
Concrete Collar Intact — Yes ___ No ___
Other _____ — Yes ___ No ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
—	—	Peristaltic Pump	
—	—	Submersible Pump	
—	—	Bailer	
—	—	PVC/Silicon Tubing	
—	—	Teflon/Silicon Tubing	
—	—	Airlift	
—	—	Hand Pump	
—	—	In-line Filter	
—	—	Press/Vac Filter	
✓	✓	None	

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
___ Deionized Water
___ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
✓ None

Field Analysis Data

PID: Ambient Air <1.0 ppm Well Mouth <1.0 ppm Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ___ Turbid ✓ Clear ___ Cloudy ___ Colored ___ Odor

TMC Purge Data @ 0943 Gal. @ 0945 Gal. @ _____ Gal. @ _____ Gal. @ _____ Gal.

Temperature, Deg. C	6.9					
pH, units	12.7					
Specific Conductivity (µmhos/cm)	12.2					
Turbidity (NTUS)	7.10	Sampled				
Oxidation - Reduction, +/- mv	218					
Dissolved Oxygen, ppm	<0.1					
Depth	0.8'					

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	2x40 ml	CRSW02000001 XX 0945
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3, 4°C	1x1 liter P	
___ Cyanide		NaOH, 4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4, 4°C	2x1 liter AG	
___ TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: Standing water; lots of oxidized sediment of 'floor' of area.
- 4'x4' open hole in (mp Hill Cleaners.

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: NYSDEC Region 8 Cleaners | JOB NUMBER: 36120520766024.2

LOCATION ID: Crystal Cleaners MW-10 | FIELD SAMPLE ID: CRMW040130IXX | EVENT NO.: 2

ACTIVITY: START 12:10 END 13:30 | SAMPLE TIME: 13:25 | DATE: 11-1-06

WATER LEVEL / PUMP SETTINGS

INITIAL DEPTH TO WATER	11.91 feet	MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING	PROTECTIVE CASING STICKUP (FROM GROUND)	— feet	CASING / WELL DIFFERENCE	/ feet
FINAL DEPTH TO WATER	12.14 feet	HISTORICAL WELL DEPTH (TOR)	/ feet	PID AMBIENT AIR	— ppmv	WELL DIAMETER	1 inches
SCREEN LENGTH	10 feet	PRESSURE TO PUMP	/ psi	PID WELL MOUTH	/ ppmv		
TOTAL VOL. PURGED	~4.7 gallons	REFILL SETTING	/	DISCHARGE SETTING	/		

(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

WELL INTERGRITY:

INTEGRITY:	YES	NO	N/A
CAP	√	—	—
CASING	√	—	—
LOCKED	—	√	—
COLLAR	√	—	—

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (NTU)	REDOX (+/- mV)	PUMP INTAKE DEPTH (ft)	COMMENTS
11:28	12.33	200	15.9	0.90	7.2	8.30	674	20		
11:34	12.58	175	15.6	2.07	7.0	11.5	552	-50		air in tubing
11:39	12.64	175	15.6	3.02	6.9	14.6	324	-60		air in tubing
11:44	12.60	150	15.5	3.77	6.8	13.5	298	-58		
11:49	12.60	150	15.5	2.71	6.7	7.41	282	-70		
11:54	12.63	150	15.5	1.96	6.7	6.50	193	-72		
11:59	12.61	150	15.5	1.61	6.6	9.51	176	-70		
12:04	12.58	150	15.5	1.96	6.6	5.78	83	-65		
12:09	12.64	150	15.5	1.25	6.5	14.71	90	-62		air in tubing
12:30	12.61	150	15.3	1.55	6.6	6.79	31	-68		pump @ lowest rate possible
12:35	12.67	150	15.3	1.61	6.6	6.02	59	-75		lowered 1'
12:40	12.66	150	15.3	1.36	6.6	5.27	40	-78		
12:45	12.70	150	15.3	1.46	6.6	5.11	142	-82		

(continued)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

[ ] DEDICATED MARSCHALK BLADDER
[ ] NON-DEDICATED MARSCHALK BLADDER
[X] OTHER peristaltic - Geopump

TYPE OF TUBING

[X] HIGH DENSITY POLYETHYLENE
[ ] OTHER _____

ANALYTICAL PARAMETERS

CONTROL NUMBER _____

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID LETTERS
[ ] VOCs - 25 ml Purge (low conc.)	OLCO2.1	HCL / 4 DEG. C	3 X 40 ML	[ ]	___/___/___
[X] VOCs - 5 ml Purge	OLMO4.2	HCL / 4 DEG. C	3 X 40 ML	[X]	XX/___/___
[ ] SVOCs	OLMO4.2	4 DEG. C	2 X 1 L AG	[ ]	___/___
[ ] PESTICIDES	OLMO4.2	4 DEG. C	2 X 1 L AG	[ ]	___/___
[ ] METALS	ILM04.2	HNO3 to pH <2	1 X 500 ML P	[ ]	___
[ ] MANGANESE / IRON -	SW846 6010	HNO3 to pH <2	1 X 500 ML P	[ ]	___
[ ] SULFATE / CHLORIDE / ALKALINITY	USEPA 375.4 / 325.3 / 310.1	4 DEG. C	1 x 1 L P	[ ]	___
[ ] NO2 - NO3	USEPA 353.2 / 354.1	H2SO4 to pH <2	1 X 500 ML P	[ ]	___
[ ] TOC	USEPA 415.1	H2SO4 to pH <2	1 X 250 ML AG	[ ]	___
[ ] METHANE / ETHANE / ETHYLENE	EPA Region 1	HCL / 4 DEG. C	3 X 40 ML	[ ]	___/___/___
[ ] OTHER _____	_____	_____	_____	[ ]	___/___/___

PURGE OBSERVATIONS

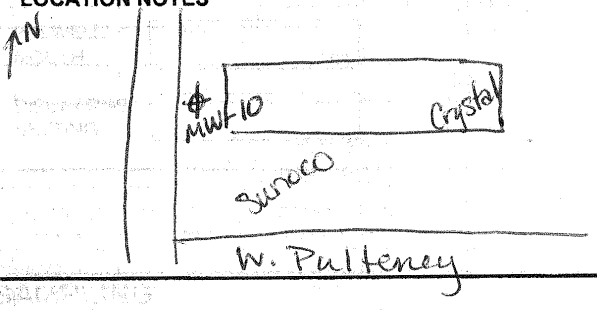
PURGE WATER CONTAINERIZED YES (NO) 'Kerosene' odor

NOTES:

SIGNATURE: Laura Smith

CHECKED BY: _____

LOCATION NOTES



FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Sheet 2 of 2

PROJECT: NYSDEC Region 8 Cleaners | JOB NUMBER: 361205 2036 04.2

LOCATION ID: Crystal MW-10 | FIELD SAMPLE ID: CRMW0100130IXX | EVENT NO.: 2

ACTIVITY: START 11:10 END 13:30 | SAMPLE TIME: 13:25 | DATE: 11-1-06

WATER LEVEL / PUMP SETTINGS

INITIAL DEPTH TO WATER	11.91 feet	MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING	PROTECTIVE CASING STICKUP (FROM GROUND)	\ feet	CASING / WELL DIFFERENCE	\ feet
FINAL DEPTH TO WATER	12.14 feet	HISTORICAL WELL DEPTH (TOR) \ feet	PID AMBIENT AIR \ ppmv		WELL DIAMETER	1 inches
SCREEN LENGTH	10 feet	PRESSURE TO PUMP \ psi	PID WELL MOUTH \ ppmv		WELL INTERGRITY:	
TOTAL VOL. PURGED	~4.7 gallons	REFILL SETTING \	DISCHARGE SETTING \			

(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

WELL INTERGRITY:	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

PURGE DATA (continued from pg. 1)

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (NTU)	REDOX (+/- mV)	PUMP INTAKE DEPTH (ft)	COMMENTS
12:50	12.68	150	15.3	1.68	6.6	5.71	93	-80		
12:55	12.65	150	15.3	1.41	6.7	5.1	71	-90		Stop to recal U-22
13:10	12.20	150	15.0	7.03	6.0	9.2	200	-30		
13:15	12.43	150	15.4	6.10	6.4	7.0	165	-70		
13:20	15.50	150	15.4	4.50	6.5	7.1	130	-75		
13:25	Sample									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

[ ] DEDICATED MARSCHALK BLADDER
[ ] NON-DEDICATED MARSCHALK BLADDER
[✓] OTHER peristaltic pump (5)

TYPE OF TUBING

[✓] HIGH DENSITY POLYETHYLENE
[ ] OTHER _____

ANALYTICAL PARAMETERS

CONTROL NUMBER _____

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID LETTERS
[ ] VOCs - 25 ml Purge (low conc.)	OLCO2.1	HCL / 4 DEG. C	3 X 40 ML	[ ]	/ /
[X] VOCs - 5 ml Purge	OLMO4.2	HCL / 4 DEG. C	3 X 40 ML	[X]	XX / /
[ ] SVOCs	OLMO4.2	4 DEG. C	2 X 1 L AG	[ ]	/
[ ] PESTICIDES	OLMO4.2	4 DEG. C	2 X 1 L AG	[ ]	/
[ ] METALS	ILM04.2	HNO3 to pH <2	1 X 500 ML P	[ ]	
[ ] MANGANESE / IRON -	SW846 6010	HNO3 to pH <2	1 X 500 ML P	[ ]	
[ ] SULFATE / CHLORIDE / ALKALINITY	USEPA 375.4 / 325.3 / 310.1	4 DEG. C	1 x 1 L P	[ ]	
[ ] NO2 - NO3	USEPA 353.2 / 354.1	H2SO4 to pH <2	1 X 500 ML P	[ ]	
[ ] TOC	USEPA 415.1	H2SO4 to pH <2	1 X 250 ML AG	[ ]	
[ ] METHANE / ETHANE / ETHYLENE	EPA Region 1	HCL / 4 DEG. C	3 X 40 ML	[ ]	/ /
[ ] OTHER _____				[ ]	/ /

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED YES (NO) "Kerosene" odor (-65)

NOTES:

SIGNATURE: L. Smith - 65 11/21/06

CHECKED BY: _____

LOCATION NOTES

see previous pg (5)

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: NYSDEC Region 8 Cleaners | JOB NUMBER: 361205 2036/04.2

LOCATION ID: Crystal Cleaners MW-1 | FIELD SAMPLE ID: CRMW001020001XX | EVENT NO. 4 X2

ACTIVITY: START 09:48 END 10:45 | SAMPLE TIME: 10:25 | DATE: 11-1-06

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	15.28 feet	HISTORICAL WELL DEPTH (TOR)	feet	PROTECTIVE CASING STICKUP (FROM GROUND)	feet
FINAL DEPTH TO WATER	15.31 feet	PID AMBIENT AIR	ppmv	CASING / WELL DIFFERENCE	feet
SCREEN LENGTH	10 feet	PRESSURE TO PUMP	psi	PID WELL MOUTH	ppmv
TOTAL VOL. PURGED	~1.8 gallons	REFILL SETTING		DISCHARGE SETTING	
				WELL DIAMETER	1 inches

(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

WELL INTERGRITY:

INTEGRITY:	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓	✓	
COLLAR	✓		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (NTU)	REDOX (+/- mV)	PUMP INTAKE DEPTH (ft)	COMMENTS
9:55	15.61	250	14.2	0.90	8.1	6.40	456	195	20.6	456 NTU on U-22
10:02	15.57	250	14.2	0.90	8.1	5.98	189	185		
10:08	15.50	175	14.2	0.90	8.1	5.84	177	178		
10:13	15.50	175	14.2	0.90	8.1	5.71	205	176		
10:18	15.50	175	14.2	0.90	8.1	5.62	75	172		
10:23	15.50	175	14.2	0.90	8.1	5.55	50	165		
10:25	15.50	100	sample							
10:34	15.50	100	14.3	0.90	8.1	5.90	30	160		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

[ ] DEDICATED MARSCHALK BLADDER
[ ] NON-DEDICATED MARSCHALK BLADDER
[X] OTHER _____

TYPE OF TUBING

[ ] HIGH DENSITY POLYETHYLENE
[ ] OTHER _____

ANALYTICAL PARAMETERS

CONTROL NUMBER _____

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID LETTERS
[ ] VOCs - 25 ml Purge (low conc.)	OLCO2.1	HCL / 4 DEG. C	3 X 40 ML	[ ]	/ /
[X] VOCs - 5 ml Purge	OLMO4.2	HCL / 4 DEG. C	3 X 40 ML	[X]	XX / MS / MD
[ ] SVOCs	OLMO4.2	4 DEG. C	2 X 1 L AG	[ ]	/
[ ] PESTICIDES	OLMO4.2	4 DEG. C	2 X 1 L AG	[ ]	/
[ ] METALS	ILM04.2	HNO3 to pH <2	1 X 500 ML P	[ ]	
[ ] MANGANESE / IRON -	SW846 6010	HNO3 to pH <2	1 X 500 ML P	[ ]	
[ ] SULFATE / CHLORIDE / ALKALINITY	USEPA 375.4 / 325.3 / 310.1	4 DEG. C	1 x 1 L P	[ ]	
[ ] NO2 - NO3	USEPA 353.2 / 354.1	H2SO4 to pH <2	1 X 500 ML P	[ ]	
[ ] TOC	USEPA 415.1	H2SO4 to pH <2	1 X 250 ML AG	[ ]	
[ ] METHANE / ETHANE / ETHYLENE	EPA Region 1	HCL / 4 DEG. C	3 X 40 ML	[ ]	/ /
[ ] OTHER _____				[ ]	/ /

PURGE OBSERVATIONS

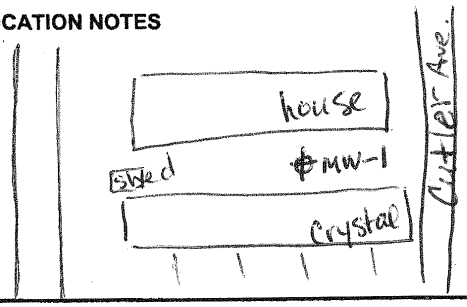
PURGE WATER CONTAINERIZED YES (NO) clear

NOTES:

SIGNATURE: Laura Smith

CHECKED BY: _____

LOCATION NOTES



FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: NYSDEC Region 8 Cleaners | JOB NUMBER: 36120520361042

LOCATION ID: Crystal Cleaners MW-5 | FIELD SAMPLE ID: CRMW0050120IXX | EVENT NO.: 2

ACTIVITY: START 0750 END ~915 | SAMPLE TIME: 09:00 | DATE: 11-1-06

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	9.15 feet	HISTORICAL WELL DEPTH (TOR)	/ feet	PROTECTIVE CASING STICKUP (FROM GROUND)	/ feet
FINAL DEPTH TO WATER	9.16 feet	PID AMBIENT AIR	/ ppmv	CASING / WELL DIFFERENCE	/ feet
SCREEN LENGTH	10 feet	PRESSURE TO PUMP	/ psi	PID WELL MOUTH	/ ppmv
TOTAL VOL. PURGED	~2.5 gallons	REFILL SETTING		DISCHARGE SETTING	/
				WELL DIAMETER	1 inches

(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

WELL INTERGRITY:

INTEGRITY:	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (NTU)	REDOX (+/- mV)	PUMP INTAKE DEPTH (ft)	COMMENTS
811	10.41	400	17.1	1.29	7.4	5.66		149	12.5	very turbid
818	9.69	200	17.1	1.42	7.3	5.41		156		"
823	9.69	200	17.3	1.47	7.3	5.11		164		"
828	9.68	200	17.2	1.60	7.2	4.86		172		less turbid
833	9.68	175	17.2	1.68	7.2	4.65	930	176		930 NTU on U-22
838	9.55	175	17.1	1.74	7.1	4.64		179		
843	9.59	175	17.2	1.77	7.1	4.56	803	183		803 NTU on U-22
848	9.60	175	17.3	1.79	7.2	4.52	520	183		
853	9.65	175	17.3	1.82	7.2	4.47	330	182		
858	9.64	175	17.3	1.88	7.2	4.44	213	181		
900		100	sample							
	/									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

[ ] DEDICATED MARSCHALK BLADDER
[ ] NON-DEDICATED MARSCHALK BLADDER
[X] OTHER peristaltic - Geopump

TYPE OF TUBING

[X] HIGH DENSITY POLYETHYLENE
[ ] OTHER _____

ANALYTICAL PARAMETERS

CONTROL NUMBER _____

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID LETTERS
[ ] VOCs - 25 ml Purge (low conc.)	OLCO2.1	HCL / 4 DEG. C	3 X 40 ML	[ ]	/ /
[X] VOCs - 5 ml Purge	OLMO4.2	HCL / 4 DEG. C	3 X 40 ML	[X]	XX / /
[ ] SVOCs	OLMO4.2	4 DEG. C	2 X 1 L AG	[ ]	/
[ ] PESTICIDES	OLMO4.2	4 DEG. C	2 X 1 L AG	[ ]	/
[ ] METALS	ILM04.2	HNO3 to pH <2	1 X 500 ML P	[ ]	
[ ] MANGANESE / IRON -	SW846 6010	HNO3 to pH <2	1 X 500 ML P	[ ]	
[ ] SULFATE / CHLORIDE / ALKALINITY	USEPA 375.4 / 325.3 / 310.1	4 DEG. C	1 x 1 L P	[ ]	
[ ] NO2 - NO3	USEPA 353.2 / 354.1	H2SO4 to pH <2	1 X 500 ML P	[ ]	
[ ] TOC	USEPA 415.1	H2SO4 to pH <2	1 X 250 ML AG	[ ]	
[ ] METHANE / ETHANE / ETHYLENE	EPA Region 1	HCL / 4 DEG. C	3 X 40 ML	[ ]	/ /
[ ] OTHER _____				[ ]	/ /

PURGE OBSERVATIONS

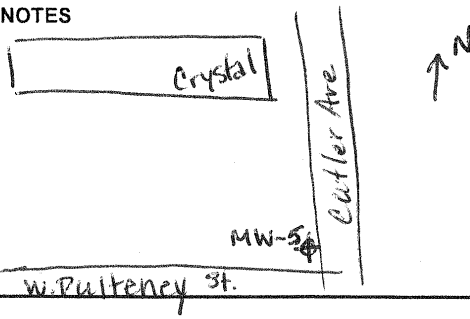
PURGE WATER CONTAINERIZED YES (NO) turbid, then cleared

NOTES:

SIGNATURE: Laura Smith

CHECKED BY: _____

LOCATION NOTES



FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: NYSDEC Region 8 Cleaners | JOB NUMBER: 361205 2036 / 1.0.2

LOCATION ID: Crystal Cleaners MW-6 | FIELD SAMPLE ID: CRMW0060130IXX | EVENT NO.: 2

ACTIVITY: START 16:50 END 17:50 | SAMPLE TIME: 17:38 | DATE: 11-1-06

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	11.41 feet	HISTORICAL WELL DEPTH (TOR)	— feet	PROTECTIVE CASING STICKUP (FROM GROUND)	<0.1 feet
FINAL DEPTH TO WATER	~11.6 feet	PID AMBIENT AIR	<0.01 ppmv	CASING / WELL DIFFERENCE	/ feet
SCREEN LENGTH	10 feet	PRESSURE TO PUMP	— psi	PID WELL MOUTH	<0.01 ppmv	WELL DIAMETER	1 inches
TOTAL VOL. PURGED	~1.4 gallons	REFILL SETTING	—	DISCHARGE SETTING	—

(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

WELL INTERGRITY:

INTEGRITY:	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	/	✓	
COLLAR	✓		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (NTU)	REDOX (+/- mV)	PUMP INTAKE DEPTH (ft)	COMMENTS
17:04	11.60	160	17.8	2.71	6.9	17.1	-	125	~~13.5~~	turbid / silty
17:09	11.58	160	17.5	2.01	7.1	10.8	-	120	12.7	"
17:14	11.63	160	17.5	2.70	7.2	9.1	-	120		"
17:19	11.60	160	17.5	2.97	7.2	8.5	-	120		"
17:24	11.60	160	17.5	3.09	7.3	7.4	-	120		"
17:30	11.60	160	17.5	4.61	7.3	7.4	-	120		"
17:35	11.61	160	17.5	3.64	7.3	6.7	-	125		"
17:38	Sample									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

[ ] DEDICATED MARSCHALK BLADDER
[ ] NON-DEDICATED MARSCHALK BLADDER
[X] OTHER peristaltic - Geopump

TYPE OF TUBING

[X] HIGH DENSITY POLYETHYLENE
[ ] OTHER _____

ANALYTICAL PARAMETERS

CONTROL NUMBER _____

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID LETTERS
[ ] VOCs - 25 ml Purge (low conc.)	OLCO2.1	HCL / 4 DEG. C	3 X 40 ML	[ ]	___/___/___
[X] VOCs - 5 ml Purge	OLMO4.2	HCL / 4 DEG. C	3 X 40 ML	[X]	XX/___/___
[ ] SVOCs	OLMO4.2	4 DEG. C	2 X 1 L AG	[ ]	___/___
[ ] PESTICIDES	OLMO4.2	4 DEG. C	2 X 1 L AG	[ ]	___/___
[ ] METALS	ILM04.2	HNO3 to pH <2	1 X 500 ML P	[ ]	___
[ ] MANGANESE / IRON -	SW846 6010	HNO3 to pH <2	1 X 500 ML P	[ ]	___
[ ] SULFATE / CHLORIDE / ALKALINITY	USEPA 375.4 / 325.3 / 310.1	4 DEG. C	1 x 1 L P	[ ]	___
[ ] NO2 - NO3	USEPA 353.2 / 354.1	H2SO4 to pH <2	1 X 500 ML P	[ ]	___
[ ] TOC	USEPA 415.1	H2SO4 to pH <2	1 X 250 ML AG	[ ]	___
[ ] METHANE / ETHANE / ETHYLENE	EPA Region 1	HCL / 4 DEG. C	3 X 40 ML	[ ]	___/___/___
[ ] OTHER _____				[ ]	___/___/___

PURGE OBSERVATIONS

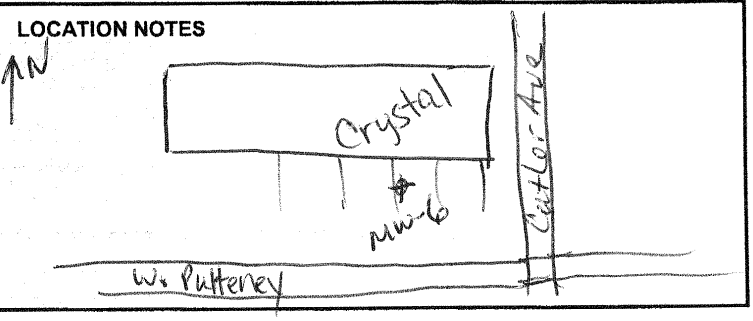
PURGE WATER CONTAINERIZED YES (NO) turbid

NOTES:

SIGNATURE: Laura M. Smith

CHECKED BY: _____

LOCATION NOTES



GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS Dry CLEANERS - GROUP II
Project Number: ~~361206 2059~~ 361205203 9042
Site: Additional Crystal - Corning
Date: 11/02/12-06
Time: Start: 1140 End: 1220
Sample Location ID: CRGW01802001XX
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS ___ _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (___ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Prot. Casing Secure; Concrete Collar Intact; Other _____ — Yes / No

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SP. 15	

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None
___ _____
___ _____

Field Analysis Data

PID: Ambient Air 1 ppm Well Mouth 1 ppm
Purge Data Collected ✓ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data @ 0.1 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C				
pH, units				
Specific Conductivity (µmhos/cm)				
Turbidity (NTUS)				
Oxidation - Reduction, +/- mv				
Dissolved Oxygen, ppm				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3 2x40 ml	1215
___ SVOCs	___	4°C	2x1 liter AG	
___ Metals	___	HNO_3, 4°C	1x1 liter P	
___ Cyanide	___	NaOH, 4°C	1x500mL P	
___ Nitrate/Sulfate	___	H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4, 4°C	2x1 liter AG	
___ TOC	___	H_2SO_4, 4°C	1x1 liter P	

Notes: SCREEN: 18 to 22

Purge water: /

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS Dry CLEANERS - GROUP II
Site: Additional Crystal - Corning
Project Number: ~~36120072059~~ 361205203C 9042
Date: 11/02/12-06
Time: Start: 1105 End: 1138
Sample Location ID: CRGW018030011AK
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (__in.) = _____ Gal/Vol. / _____ Total Gal Purged

Well Integrity: Yes / No
Prot. Casing Secure
Concrete Collar Intact
Other _____

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SP 15	

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None

Field Analysis Data

PID: Ambient Air ___ ppm Well Mouth ___ ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Colored ___ Clear ___ Odor ___ Cloudy

Purge Data @ 50.1 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C					
pH, units					
Specific Conductivity (µmhos/cm)					
Turbidity (NTUS)					
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm					

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3 2x40 ml	
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3,4°C	1x1 liter P	
___ Cyanide		NaOH,4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4,4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4,4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4,4°C	2x1 liter AG	
___ TOC		H_2SO_4,4°C	1x1 liter P	

1135

Notes: SLOOW: 29 to 30

Purge water:

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

9404014D L22

Test Boring Log

Project: REGION 8 D.C. - GROUP II	Boring/Well No.: SB/GW-019	Project No.: 5203G 361206215910.02	
Client: NYSDEC	Site: Crystal Cleaners	Sheet No.: 1 of 2	
Logged By: B. Shaw	Ground Elevation	Start Date: 10/31/2006	Finish Date: 10/31/2006
Drilling Contractor: Geologic, NY	Driller's Name: Joe Mengel	Rig Type: 66 DT.	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV)	Casing Size: 1 1/2	Auger Size: 2"
Soil Drilled: 20' to 16' (E)	Rock Drilled	Total Depth: 30'	Depth to Groundwater/Date	Piez ☑ Well ☐ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	PI Meter Head Space	Lab Tests
1						0-0.8 Lt olive silty fine sand dry/damp, SP	Fill		6.1		
2	S1 1.7/4.0					0.8-1.4 Black sandy gravel dry, slag pieces					
3						1.4-3.8 orange/Brown sand clay & gravel, moist, MP/SP.	GC				
4						3.8-4 orange brown fine sandy clay & gravel, wet MP/MP, soft	SCC				
5						4-4.8 silty sand w some fine gravel, damp. Dense	SM GM CL		6.1		
6	S2 1.8/4.0					4.8 base of V. Dense reddish orange fine silt	SM GM ML				
7						4.8-8 Same as 4-4.8; Cobble @ ~7'					
8						8-9.6 Same as 4-4.8	SM GM		10.1		
9						9.6-10 Brown clean M course sand w/some fines, dry.	SP				
10	S3 2.9/4.0					10-12 Brown silty sand & gravel w some cobbles, Dense, NP.	SM GM				
11											
12						12-16 Brown silt sand & gravel w some cobbles @ ~15', damp to dry, NP	SM GM		10.1		
13											
14	S4 2.3/4.0										
15											
16											

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

9404014D(z) L33

Test Boring Log

Project: Region 8 D.C. - Group II		Boring/Well No.: SB/GW-019	Project No.: 5263 3612062059/6.
Client: NYSDEC	Site: Crystal		Sheet No.: 2 of 2
Logged By: B. Shaw	Ground Elevation:	Start Date: 10/31/2006	Finish Date: 10/31/2006
Drilling Contractor: Geologic	Driller's Name: Joe Mensch		Rig Type: 66 DT
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV):	Casing Size: 1 1/2"	Auger Size: 2"
Soil Drilled: 20' 1/6	Rock Drilled:	Total Depth: 38'	Depth to Groundwater/Date:	Piez ☑ Well ☐ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	PI Meter Head Space		Lab Tests
14												
15												
16	S4					16 to ~18' Brown Sandy gravel w/ some silt, damp to moist; NP	GM		<0.1			
17												
18	S5 40/40					18' to 20' Brown/DK Brown Sandy Silt, Saturated SP/NP	ML					
19												
20												
21												
22												
23												
24												
25												
26												
27												

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGENS Dry Cleaners - Group II
Site: Additional Crystal - Corning
Project Number: ~~36120052059~~ 36120052032 9042
Date: 10/31/12-06
Time: Start: 1643 End: 1705
Sample Location ID: CRGW01190190 1XX
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No GeoProbe
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (__ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Prot. Casing Secure Yes ___ No ___; Concrete Collar Intact Yes ___ No ___; Other _____ Yes ___ No ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
—	—	Submersible Pump	
—	—	Bailer	
✓	✓	PVC/Silicon Tubing	
—	—	Teflon/Silicon Tubing	
—	—	Airlift	
—	—	Hand Pump	
—	—	In-line Filter	
—	—	Press/Vac Filter	
✓	✓	SP-15	

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None
___ _____
___ _____

Field Analysis Data

PID: Ambient Air ___ ppm Well Mouth ___ ppm
Purge Data Collected ✓ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data @ 12 Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.
Temperature, Deg. C	15.0				
pH, units	7.3				
Specific Conductivity (µmhos/cm)	0.794				
Turbidity (NTUS)	71000				
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	14.9				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3 x 40 ml	1700
___ SVOCs	___	4°C	2x1 liter AG	
___ Metals	___	HNO_3, 4°C	1x1 liter P	
___ Cyanide	___	NaOH, 4°C	1x500mL P	
___ Nitrate/Sulfate	___	H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4, 4°C	2x1 liter AG	
___ TOC	___	H_2SO_4, 4°C	1x1 liter P	

Notes: SCREEN: 18 to 20'
Purge water:

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS Dry Cleaners - Group II
Project Number: ~~361206205901~~ 361205203601/04.2
Sample Location ID: CRGW019029 01 X X

Site: Additional Crystal - Corning
Date: 10/31/2006
Time: Start: 1607 End: 1642
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical

___ Top of Well ___ Top of Protective Casing

Well Riser Stick-up _____ Ft. (from ground)

Protective _____ Ft. Casing/Well Difference

Protective _____ Ft. Casing

Depth to Water _____ Ft.

Well Material: ___ PVC ___ SS ___ _____

Well Locked?: ___ Yes ___ No

Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____

Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (__ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Yes / No
Prot. Casing Secure
Concrete Collar Intact
Other _____

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SP-15	

Decontamination Fluids Used: (✓ All That Apply at Location)

___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None
___ _____
___ _____

Field Analysis Data

PID: Ambient Air 1.1 ppm Well Mouth 1.1 ppm

Purge Data Collected ___ In-line ✓ In Container

Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data	@ ~2 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	16				
pH, units	7.9 (mv)				
Specific Conductivity (µmhos/cm)	0.613				
Turbidity (NTUS)	>1000				
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	17.9				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3 x 40 ml	
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3,4°C	1x1 liter P	
___ Cyanide		NaOH,4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4,4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4,4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4,4°C	2x1 liter AG	
___ TOC		H_2SO_4,4°C	1x1 liter P	

1635

Notes: Screen: 5' 10' 28 to 30'

Purge water:

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS Dry CLEANERS - GROUP II
Project Number: ~~36120620591.0.2~~ 3612052036.04.2
Sample Location ID: CRGW0200190lXX

Site: Additional Crystal - Corning
Date: 11/02/2006
Time: Start: 1330 End: 1415
Signature of Sampler:

Water Level/Well Data

Well Depth ____ Ft. ___ Measured ___ Historical ___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up ____ Ft. (from ground)
Protective ____ Ft. Casing/Well Difference
Protective ____ Ft. Casing

Depth to Water ____ Ft.
Well Material: ___ PVC ___ SS
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer

Height of Water Column ____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (__ in.) = ____ Gal/Vol. ____ Total Gal Purged

Well Integrity: Yes No
Prot. Casing Secure
Concrete Collar Intact
Other

GEOPROBE

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For)

Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SP-15	

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None

Field Analysis Data

PID: Ambient Air — ppm Well Mouth — ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data	@ ~2 Gal.	@ Gal.	@ Gal.	@ Gal.	@ Gal.
Temperature, Deg. C					
pH, units					
Specific Conductivity (µmhos/cm)					
Turbidity (NTUS)					
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm					

Sample Collection Requirements
(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3x40 ml	@ 1410
SVOCs		4°C	2x1 liter AG	
Metals		HNO_3, 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	
Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H_2SO_4, 4°C	2x1 liter AG	
TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: SCREEN: 17 to 21
Purge water: /

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS Dry CLEANERS - GROUP II
Project Number: ~~S 361200 2059~~ S 361205 2036 / 9042
Sample Location ID: CRGW02060290 1 A A

Site: Additional Crystal - Corning
Date: 11 / 02 / 12-06
Time: Start: 1330 End: 1410
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical

___ Top of Well ___ Top of Protective Casing

Well Riser Stick-up _____ Ft. (from ground)

Protective _____ Ft. Casing/Well Difference

Protective _____ Ft. Casing

Depth to Water _____ Ft.

Well Material: ___ PVC ___ SS _____

Well Locked?: ___ Yes ___ No Geoprobe

Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____

Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (__in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Prot. Casing Secure ___ Yes ___ No; Concrete Collar Intact ___ Yes ___ No; Other _____ ___ Yes ___ No

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
—	—	Submersible Pump	
—	—	Bailer	
✓	✓	PVC/Silicon Tubing	
—	—	Teflon/Silicon Tubing	
—	—	Airlift	
—	—	Hand Pump	
—	—	In-line Filter	
—	—	Press/Vac Filter	
✓	✓	SP-15	

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None
___ _____
___ _____

Field Analysis Data

PID: Ambient Air ___ ppm Well Mouth ___ ppm

Purge Data Collected ✓ In-line ✓ In Container

Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data @ ~0.1 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C				
pH, units				
Specific Conductivity (µmhos/cm)				
Turbidity (NTUS)				
Oxidation - Reduction, +/- mv				
Dissolved Oxygen, ppm				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3 x 2x40 ml	
___ SVOCs	___	4°C	2x1 liter AG	
___ Metals	___	HNO_3, 4°C	1x1 liter P	
___ Cyanide	___	NaOH, 4°C	1x500mL P	
___ Nitrate/Sulfate	___	H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate	___	H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB	___	4°C	3x1 liter AG	
___ TPH	___	H_2SO_4, 4°C	2x1 liter AG	
___ TOC	___	H_2SO_4, 4°C	1x1 liter P	

Notes: SCREEN: 30 to 29' Purge water. 1405

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

Test Boring Log

Project: REGION 8 D.C. - GROUP II		Boring/Well No.: SB/GW-02	Project No.: 52036 / 361206 2259/0..2
Client: **NYSDEC**	Site: Crystal		Sheet No. 1 of 1
Logged By: B. Snow	Ground Elevation:	Start Date: 11/01/2006	Finish Date: 11/01/2006
Drilling Contractor: Geologic, NY	Driller's Name: Joe Mensel		Rig Type: 66 DT.
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV): —	Casing Size: 1 1/2 / Auger Size: 2"
Soil Drilled: 16'	Rock Drilled: —	Total Depth: 38'	Depth to Groundwater/Date: ~15.5' — Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space		Lab Tests
0–4	S1 1.8/4.0					0-0.5 Brownish olive silty sand w/ roots, AG, damp, SP 0.5-1.2 Black silty fine sand w/ some clay, slag & ash, trace brick 1.2-2 Lt Brown silty sand & little fine gravel, dry, m Dense, WG 2-3.5 orange brown sand clay gravel, moist, WG, m stiff 3.5-4 Brown sandy clay, moist	Fill Fill GC CL		<0.1			
4–8	S2 2.2/4.0					4-4.4 Same as 3.5 to 4 4.4-8 Brown ~~silty~~ sand & gravel WG, some cobbles; some silt m coarse sand to fine gravel	GW		<0.1			
8–12	S3 1.5/4.0					Brown m coarse sand w/ some coarse sand & trace silt damp; WG, m Dense; 10.5 to 12 Brown silty sand, saturated, SP/MP, m Dense	SW SM		<0.1			
12–16	S4 1.5/4.0					12-15.5 Same as 10.5 to 12. 15.5 to 16 Olive Brown sandy gravel w/ some clay saturated m Dense, MP	SM GW-GC		<0.1			

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

9404014D(z) L33

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS Dry CLEANERS - GROUP II
Project Number: S 361205203 9042
Site: Additional Crystal - Corning
Date: 11/01/12-06
Time: Start: 0750 End: 1015
Sample Location ID: CR46W021026011CK
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (__in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Prot. Casing Secure — Yes ___ No ___
Concrete Collar Intact — Yes ___ No ___
Other _____ — Yes ___ No ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SPT	MW1/SW7

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None
___ _____
___ _____

Field Analysis Data

PID: Ambient Air ___ ppm Well Mouth ___ ppm
Purge Data Collected ✓ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor Slight

Purge Data @ ~0.2 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	13				
pH, units	7.0				
Specific Conductivity (µmhos/cm)	0.557				
Turbidity (NTUS)	>1000				
Oxidation - Reduction, +/- mv	—				
Dissolved Oxygen, ppm	3.8				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3 x 40 ml	5
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3, 4°C	1x1 liter P	
___ Cyanide		NaOH, 4°C	1x500mL P	
___ Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4, 4°C	2x1 liter AG	
___ TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: SCREEN: 25 to 27
Purge Water: Sandy → Sediment

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 Dry CLEANERS - GROUP II
Project Number: ~~36120062059~~ 102 / 3612052036 / 04.2
Sample Location ID: C R G W 0 2 1 0 1 9 0 1 A R

Site: Additional Crystal - Corning
Date: 11 / 01 / 2006
Time: Start: 1031 End: 1115
Signature of Sampler:

Water Level/Well Data

Well Depth ______ Ft. ___ Measured ___ Historical ___ Top of Well ___ Top of Protective Casing ___

Well Riser Stick-up ______ Ft. (from ground)

Protective ______ Ft. Casing/Well Difference

Protective ______ Ft. Casing

Depth to Water ______ Ft.

Well Material: ___ PVC ___ SS ___

Well Locked?: ___ Yes ___ No

Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___

Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___

Geoprobe

Height of Water Column ______ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (__in.) = [______ Gal/Vol. ______ Total Gal Purged]

Well Integrity:	Yes	No
Prot. Casing Secure	___	___
Concrete Collar Intact	___	___
Other ______	___	___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For)

Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SP15 small/slot	

Decontamination Fluids Used:

(✓ All That Apply at Location)

- ___ Methanol (100%)
- ___ 25% Methanol/75% ASTM Type II water
- ✓ Deionized Water
- ✓ Liquinox Solution
- ___ Hexane
- ___ HNO_3/D.I. Water Solution
- ___ Potable Water
- ___ None

Field Analysis Data

PID: Ambient Air ✓ ppm Well Mouth ✓ ppm

Purge Data Collected ___ In-line ✓ In Container

Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data	@ ____ Gal.	@ ____ Gal.	@ ____ Gal.	@ ____ Gal.	@ ____ Gal.
Temperature, Deg. C	15.6				
pH, units	Cal/ 7.9				
Specific Conductivity (µmhos/cm)	0.680				
Turbidity (NTUS)	>1000				
Oxidation - Reduction, +/- mv	—				
Dissolved Oxygen, ppm	2.3				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
✓ VOCs	✓	4°C	3 x40 ml	
SVOCs		4°C	2x1 liter AG	
Metals		HNO_3,4°C	1x1 liter P	@ 1100
Cyanide		NaOH,4°C	1x500mLP	
Nitrate/Sulfate		H_2SO_4,4°C	1x1 liter P	
Nitrate/Phosphate		H_2SO_4,4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H_2SO_4,4°C	2x1 liter AG	
TOC		H_2SO_4,4°C	1x1 liter P	

Notes: SCREEN: 18' to 20'

Purge water:

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services

Test Boring Log

Project: REGION 8 D.C. - GROUP II	Boring/Well No.: SB/GW-022	Project No.: 52036 361206 215940.02	
Client: NYSDEC	Site: Crystal Geysers	Sheet No.: 1 of 1	
Logged By: B. Shaw	Ground Elevation	Start Date: 11/01/2006	Finish Date: 11/01/2006
Drilling Contractor: Geologic, NY	Driller's Name: Joe Mensel	Rig Type: 66 DT.	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV)	Casing Size: 1 1/2	Auger Size: 2"
Soil Drilled: 16	Rock Drilled	Total Depth: 30	Depth to Groundwater/Date	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	PI Meter Head Space	Lab Tests
1	S1 1.9/4.0					0-1 DK Brown silty loam w/ rocks	FILL		<0.1		
2						1-1.5 cobbles, crushed rock PG,					
3						1.5-3 Brown silty-clay & coarse Sand, wet, MP, MStiff	ML SC				
4						3-4 Lt orange Brown Sand-clay & gravel mix, wet, MP/HP, roots from near by tree	CL				
5	S2 0.1/4.0					pushed a cobble no recovery.	6C 1 N/A		<0.1		
6											
7											
8						~8 to ~11 ft Brown/Brown Sand & gravel w/ some silt wet/saturated, M Dense, trace cobble	GM		<0.1		
9											
10	S3 1.1/4.0										
11						11-12 clean medium Sand, damp, NP, PG	SP				
12											
13						Olive Brown/Brown Silty Sand & gravel w/ trace clay, Soft, Saturated WC	SM GM		<0.1		
14	S4 0.7/4.0										
15											
16											

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS DRY CLEANERS - GROUP II
Site: Additional Crystal - Corning
Project Number: ~~36170620591~~ 9.2 / 3612052036 / 04.2
Date: 11 / 01 / 12-06
Time: Start: 1140 End: 1247
Sample Location ID: CRGW022028011XX
Signature of Sampler:

Water Level/Well Data

Well Depth ____ Ft. ___ Measured ___ Historical ___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up (from ground) ____ Ft.
Protective Casing/Well Difference ____ Ft.
Protective Casing ____ Ft.

Depth to Water ____ Ft.
Well Material: ___ PVC ___ SS
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer

GEOPROBE

Height of Water Column ____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (__ in.) = [____ Gal/Vol. ____ Total Gal Purged]

Well Integrity:	Yes	No
Prot. Casing Secure		
Concrete Collar Intact		
Other		

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For)

Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SP-15	

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None

Field Analysis Data

PID: Ambient Air ✓ ppm Well Mouth ✓ ppm
Purge Data Collected ✓ In-line ✓ In Container
Sample Observations: ✓ Turbid __ Clear __ Cloudy __ Colored __ Odor

Purge Data	@ ~2 Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.
Temperature, Deg. C	14.2				
pH, units	7.8				
Specific Conductivity (µmhos/cm)	0.028				
Turbidity (NTUS)	>1000				
Oxidation - Reduction, +/- mv	—				
Dissolved Oxygen, ppm	2.4				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3 ~~2~~x40 ml	@ 1245
SVOCs		4°C	2x1 liter AG	
Metals		HNO_3,4°C	1x1 liter P	
Cyanide		NaOH,4°C	1x500mLP	
Nitrate/Sulfate		H_2SO_4,4°C	1x1 liter P	
Nitrate/Phosphate		H_2SO_4,4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H_2SO_4,4°C	2x1 liter AG	
TOC		H_2SO_4,4°C	1x1 liter P	

Notes: SCREEN: 26-30'
Purge water.

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS Dry CLEANERS - GROUP II
Project Number: ~~S 361200 2059~~ S 361205 2036 9042
Sample Location ID: CRGW022011801 1XX

Site: Additional Crystal - Corning
Date: 11/01/12-06
Time: Start: 1250 End: 1312
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (__ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Yes No
Prot. Casing Secure ___ ___
Concrete Collar Intact ___ ___
Other _____ ___ ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SP. 15	

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None
___ _____
___ _____

Field Analysis Data

PID: Ambient Air 0 ppm Well Mouth 1 ppm
Purge Data Collected ✓ In-line ✓ In Container
Sample Observations: ___ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data @ 12 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C 14.1					
pH, units 7.7					
Specific Conductivity (µmhos/cm) 0.648 ms/					
Turbidity (NTUS) >1000					
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm 4.4					

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs		4°C	3 2x40 ml	
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3,4°C	1x1 liter P	
___ Cyanide		NaOH,4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4,4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4,4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4,4°C	2x1 liter AG	
___ TOC		H_2SO_4,4°C	1x1 liter P	

1320

Notes: SCREEN: 16 to 20
Purge water: ✓

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

Test Boring Log

Project: REGION 8 D.C. - GROUP II	Boring/Well No.: SB/GW-023	Project No.: 52039 361206215910.02	
Client: NYSDEC	Site: Crystal Greens	Sheet No.: 1 of	
Logged By: B. Shaw	Ground Elevation	Start Date: 11/02/2006	Finish Date: 11/02/2006
Drilling Contractor: Geologic, NY	Driller's Name: Joe Menzel	Rig Type: 66 DT.	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV)	Casing Size: 1 1/2	Auger Size: 2"
Soil Drilled: 16	Rock Drilled	Total Depth: 28'	Depth to Groundwater/Date: ~15.5	Piez ☑ Well ☐ Boring ☐

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests
1	S1 1.9/4.0					0-0.5 Topsoil 0.5-1 Olive Sand-silt-gravel damp, WG, SP/MP 1-4 Black Ash/slag mix dry MDense	FILL		0.1		
2											
3											
4						4-4.2 Same as 1-4 4.2-8 Lt Brown/Brown silty/sand & gravel w/ some cobbles, dry, WG, Dense	SM GM		0.1		
5	S2 2.1/4.0										
6											
7											
8						8-8.6 Same as 4.2-8 8.6-9 Black silty sand fines to mcoarse, dry	SM GM SM		0.1		
9											
10	S3 3.7/4.0					9-12 Lt Brown silty Mcoarse sand w/ little fine gravel, trace cobbles dry Dense, WG	SM GM		3.3 ppm		
11											
12									0.1		
13						Same as 9 to 12'	SM GM		0.1		
14	S4 2.0/4.0					@ 15.5 to 16 Olive/redish Brown Sandy clay w/ some gravel, Saturated, WG, MDense	MH/CL Look				
15											
16											

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

9404014D(z) L33

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DRY CLEANERS - GROUP II
Project Number: ~~36120062059 / 0.2~~ 36120520361 / 04.2
Sample Location ID: C R G W 0 2 3 0 1 1 9 0 1 X X

Site: Additional Crystal - Corning
Date: 11 / 01 / 2006
Time: Start: 0900 End: 0920
Signature of Sampler:

Water Level/Well Data

Well Depth _______ Ft. ___ Measured ___ Historical ___ Top of Well ___ Top of Protective Casing

Well Riser Stick-up _____ Ft. (from ground)

Protective _____ Ft. Casing/Well Difference

Protective _____ Ft. Casing

Depth to Water _____ Ft.

Well Material: ___ PVC ___ SS

Well Locked?: ___ Yes ___ No

Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch

Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (__ in.) = [_____ Gal/Vol. _____ Total Gal Purged]

Well Integrity:	Yes	No
Prot. Casing Secure		
Concrete Collar Intact		
Other		

Geoprobe

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For)

Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SP-15	

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None

Field Analysis Data

PID: Ambient Air / ppm Well Mouth / ppm

Purge Data Collected ___ In-line ✓ In Container

Sample Observations: ✓ Turbid ✓ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data	@ ~2 Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.
Temperature, Deg. C					
pH, units					
Specific Conductivity (µmhos/cm)					
Turbidity (NTUS)					
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm					

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
✓ VOCs	✓	4°C	3x40 ml	
SVOCs		4°C	2x1 liter AG	
Metals		HNO_3,4°C	1x1 liter P	
Cyanide		NaOH,4°C	1x500mLP	@ 0905
Nitrate/Sulfate		H_2SO_4,4°C	1x1 liter P	
Nitrate/Phosphate		H_2SO_4,4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H_2SO_4,4°C	2x1 liter AG	
TOC		H_2SO_4,4°C	1x1 liter P	

Notes: SCREEN: 17' to 21'
Purge water: ~1

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS Dry CLEANERS - GROUP II
Project Number: ~~S 361206 2059~~ S 361205 2036 / 9042
Sample Location ID: CRGW023027010XX
Site: Additional Crystal - Corning
Date: 11/01 12-06
Time: Start: 0730 End: 0850
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No Geoprobe
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ __ Gal/Ft. (__in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Yes No
Prot. Casing Secure ___ ___
Concrete Collar Intact ___ ___
Other _____ ___ ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SP-15	

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None
___ _____
___ _____

Field Analysis Data

PID: Ambient Air ___ ppm Well Mouth ___ ppm
Purge Data Collected ✓ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data @ ~2 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C					
pH, units					
Specific Conductivity (µmhos/cm)					
Turbidity (NTUS)					
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm					

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3 2x40 ml	
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3, 4°C	1x1 liter P	
___ Cyanide		NaOH, 4°C	1x500mL P	
___ Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4, 4°C	2x1 liter AG	
___ TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: SCREEN: 26' to 28'
Purge water: DK Brown silty

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

Test Boring Log

Project: Region 8 D.C. - Group II		Boring/Well No.: GW-24	Project No.: 361206205910...2
Client: NYSDEC	Site: Crystal Cleaners		Sheet No.: 1 of 1
Logged By: L. Smith	Ground Elevation	Start Date: 11-1-06	Finish Date: 11-1-06
Drilling Contractor: Geologic, NY	Driller's Name: Joe Mensel		Rig Type: 66 DT
Drilling Method: Direct-Push	Protection Level: D	P.I.D. (eV): /	Casing Size: 1 1/2" / Auger Size: 2"
Soil Drilled: 16'	Rock Drilled	Total Depth: 24'	Depth to Groundwater/Date: ~11' — Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm): PI Meter Field Scan	Monitoring (ppm): PI Meter Head Space	Lab Tests
1			35%			0-0.3' Asphalt 0.3-2.5' black sand & gravel asphalt base	Fill		0.0		
2											
3	S1					2.5-4' light brown clayey silt some f-c GRavel, subrounded med. plasticity, soft, moist	CLGr		0.0		
4											
5			15%			4-6' same as above			0.0		
6											
7	S2					6-8' med. brown sandy gravel, subrounded, little SILT, well-graded, loose, moist.	GM				
8											
9			25%			8-12' same as above wet @ 11.0'	GM		0.0		
10	S3										
11											
12											
13	S4		15%			12-16 med. brown sandy Gravel, little SILT, well-graded, loose, saturated	SM GM		0.0		
16											

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

9404014D(z) L33

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS Dry CLEANERS - GROUP II
Project Number: 361206205981 0.2
Site: Crystal Cleaners
Date: 11-1-06
Time: Start: 16:25 End: 16:35
Sample Location ID: CREWC24C1301XX
Signature of Sampler: L.M.B.

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No GEOPROBE
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (__ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Prot. Casing Secure ___ Yes ___ No; Concrete Collar Intact ___ ___; Other _____ ___ ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
✓	✓	Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	Millipore	

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None
___ _____
___ _____

Field Analysis Data

PID: Ambient Air 0 ppm Well Mouth 0 ppm
Purge Data Collected ✓ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data @ ___ Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.
Temperature, Deg. C 15.0				
pH, units 7.6				
Specific Conductivity (µmhos/cm) 1.17				
Turbidity (NTUS) >999				
Oxidation - Reduction, +/- mv				
Dissolved Oxygen, ppm 5.0				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3 x 40 ml	
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3,4°C	1x1 liter P	
___ Cyanide		NaOH,4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4,4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4,4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4,4°C	2x1 liter AG	
___ TOC		H_2SO_4,4°C	1x1 liter P	

Notes: SCREEN: 12-14
Purge water: 4-10

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN
ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS DRY CLEANERS - GROUP II
Project Number: 361206205910.2
Site: Crystal Cleaners
Date: 11-1-06
Time: Start: 16:08 End: 16:12
Sample Location ID: CRGW02402301XX
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS ___ _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (___ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Yes No
Prot. Casing Secure ___ ___
Concrete Collar Intact ___ ___
Other _____ ___ ___

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
✓		Bailer	
	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
✓	✓	Press/Vac Filter	
		Millipore	

Decontamination Fluids Used:

(✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None
___ _____
___ _____

Field Analysis Data

PID: Ambient Air <0 ppm Well Mouth <0 ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	14.5				
pH, units	7.9				
Specific Conductivity (µmhos/cm)	0.765				
Turbidity (NTUS)	900				
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	3.93				

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3x40 ml	
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3,4°C	1x1 liter P	
___ Cyanide		NaOH,4°C	1x500mLP	
___ Nitrate/Sulfate		H_2SO_4,4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4,4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4,4°C	2x1 liter AG	
___ TOC		H_2SO_4,4°C	1x1 liter P	

Notes: SCREEN: 22-24'
Purge water: 4-10

N/A

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

Test Boring Log

Project: REGION 8 D.C. - GROUP II	Boring/Well No.: SB/GW-025	Project No.: 52036 361206215/0002	
Client: NYSDEC	Site: Crystal Geysers	Sheet No.: 1 of 1	
Logged By: B. Shaw	Ground Elevation:	Start Date: 11/01/2006	Finish Date: 11/01/2006
Drilling Contractor: Geologic, NY	Driller's Name: Joe, Mensch	Rig Type: 66 DT.	
Drilling Method: Direct Push	Protection Level: D	P.I.D. (eV):	Casing Size: 1 1/2	Auger Size: 2"
Soil Drilled: 16'	Rock Drilled:	Total Depth: 24'	Depth to Groundwater/Date: ~11'	Piez ☐ Well ☐ Boring ☑

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/6" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm) PI Meter Field Scan	Monitoring (ppm) PI Meter Head Space	Lab Tests
1						0-0.8 OK Brown silt/loam, roots	Fill		<0.1		
2	S1 3.0/4.0					0.8-1 Cobble					
3						1-1.5 olive Brown Sand-clay-gravel moist, wet, m Dense/St-Ff					
4						1.5-4 olive silty clay w some Sand, Slag/Ash @ ~3.2, deep HP/MP, Brick @ ~2.5					
5	S2 2.2/4.0					4-5.8 olive/Brown silt/Sand & gravel dry/loose, some cobbles			<0.1		
6						5.8-8 grey fine sandy silt w little clay; MG, wet/moist, MP friable, some organic roots/wood fragments ceramic piece @ 8', Ash @ 7'					
7											
8											
9						Grey clay-Sand & gravel wet/saturated, loose, MG, HP/MP	GC		<0.1		
10	S3 1.8/4.0										
11											
12											
13						12-13.5 same as 8-12			<0.1		
14	S4 4.0/4.0					13.5-16 Brown Sand-clay & gravel mix, MG, saturated	GC				
15											
16											

FIGURE 4-6
TYPICAL TEST BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGIONS Dry CLEANERS - GROUP II
Project Number: ~~36120020599~~ 361205203 9042
Site: Additional Crystal - Corning
Date: 11/01/12-06
Time: Start: 1315 End: 1510
Sample Location ID: CRGW02S0221 01 K K
Signature of Sampler:

Water Level/Well Data

Well Depth _____ Ft. ___ Measured ___ Historical
___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up _____ Ft. (from ground)
Protective _____ Ft. Casing/Well Difference
Protective _____ Ft. Casing

Depth to Water _____ Ft.
Well Material: ___ PVC ___ SS _____
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch ___ _____
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer ___ _____

Height of Water Column _____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ ___ Gal/Ft. (___ in.) = _____ Gal/Vol. _____ Total Gal Purged

Well Integrity: Prot. Casing Secure ___ Yes ___ No; Concrete Collar Intact ___ Yes ___ No; Other _____ ___ Yes ___ No

Equipment Documentation

Purging/Sampling Equipment Used:

(✓ If Used For) Purging	Sampling		Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SP. 15	

Decontamination Fluids Used: (✓ All That Apply at Location)
___ Methanol (100%)
___ 25% Methanol/75% ASTM Type II water
✓ Deionized Water
✓ Liquinox Solution
___ Hexane
___ HNO_3/D.I. Water Solution
___ Potable Water
___ None
___ _____
___ _____

Field Analysis Data

PID: Ambient Air ___ ppm Well Mouth ___ ppm
Purge Data Collected ✓ In-line ✓ In Container
Sample Observations: ✓ Turbid ___ Clear ___ Cloudy ___ Colored ___ Odor

Purge Data @ ~0.2 Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C				
pH, units Cust				
Specific Conductivity (µmhos/cm)				
Turbidity (NTUS)				
Oxidation - Reduction, +/- mv				
Dissolved Oxygen, ppm				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3 2x40 ml	
___ SVOCs		4°C	2x1 liter AG	
___ Metals		HNO_3, 4°C	1x1 liter P	
___ Cyanide		NaOH, 4°C	1x500mL P	
___ Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	
___ Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
___ Pest/PCB		4°C	3x1 liter AG	
___ TPH		H_2SO_4, 4°C	2x1 liter AG	
___ TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: SCREEN: 20' to 24'
Purge Water: ✓

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 Dry CLEANERS - GROUP II
Project Number: ~~3612062059 / 9.2~~ 3612052036 / 04.2
Sample Location ID: C R G W 0 2 5 0 1 2 0 1 A K

Site: Additional Crystal - Corning
Date: 1 / 01 / 2006
Time: Start: 1512 End: 1530
Signature of Sampler:

Water Level/Well Data

Well Depth ____ Ft. ___ Measured ___ Historical ___ Top of Well ___ Top of Protective Casing
Well Riser Stick-up ____ Ft. (from ground)
Protective Casing/Well Difference ____ Ft.
Protective Casing ____ Ft.

Depth to Water ____ Ft.
Well Material: ___ PVC ___ SS
Well Locked?: ___ Yes ___ No
Well Dia. ___ 2 inch ___ 4 inch ___ 6 inch
Water Level Equip. Used: ___ Elect. Cond. Probe ___ Float Activated ___ Press. Transducer

GEOPROBE

Height of Water Column ____ Ft. X ___ .16 Gal/Ft. (2 in.) ___ .65 Gal/Ft. (4 in.) ___ 1.5 Gal/Ft. (6 in.) ___ Gal/Ft. (__ in.) = ____ Gal/Vol. ____ Total Gal Purged

Well Integrity:	Yes	No
Prot. Casing Secure		
Concrete Collar Intact		
Other		

Equipment Documentation

Purging/Sampling Equipment Used:

Purging (✓ If Used For)	Sampling	Equipment	Equipment ID
✓	✓	Peristaltic Pump	
		Submersible Pump	
		Bailer	
✓	✓	PVC/Silicon Tubing	
		Teflon/Silicon Tubing	
		Airlift	
		Hand Pump	
		In-line Filter	
		Press/Vac Filter	
✓	✓	SP-15	

Decontamination Fluids Used:

(✓ All That Apply at Location)
- ___ Methanol (100%)
- ___ 25% Methanol/75% ASTM Type II water
- ✓ Deionized Water
- ✓ Liquinox Solution
- ___ Hexane
- ___ HNO_3/D.I. Water Solution
- ___ Potable Water
- ___ None

Field Analysis Data

PID: Ambient Air — ppm Well Mouth — ppm
Purge Data Collected ___ In-line ✓ In Container
Sample Observations: ___ Turbid ___ Colored ___ Clear ___ Odor ___ Cloudy

Purge Data	@ 2 Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.	@ ___ Gal.
Temperature, Deg. C	15.2				
pH, units	6.9				
Specific Conductivity (~~µmhos~~/cm)	0.693				
Turbidity (NTUS)	>1000				
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	3.5				

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3 ~~2~~x40 ml	
SVOCs		4°C	2x1 liter AG	
Metals		HNO_3, 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	@ 1525
Nitrate/Sulfate		H_2SO_4, 4°C	1x1 liter P	
Nitrate/Phosphate		H_2SO_4, 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H_2SO_4, 4°C	2x1 liter AG	
TOC		H_2SO_4, 4°C	1x1 liter P	

Notes: SCREEN: 14' to 10'
Purge water.

FIGURE 4-1
GROUNDWATER SAMPLE DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services

APPENDIX D

SITE SURVEY

P:\Projects\nysdec1\projects\Region 8 Dry Cleaning Sites\4.0 Project Deliverables\4.5 Databases\CADD\36408 Crystal Cleaners-REV.dwg Mon, 12 Mar 2007 - 1:47pm delawrence

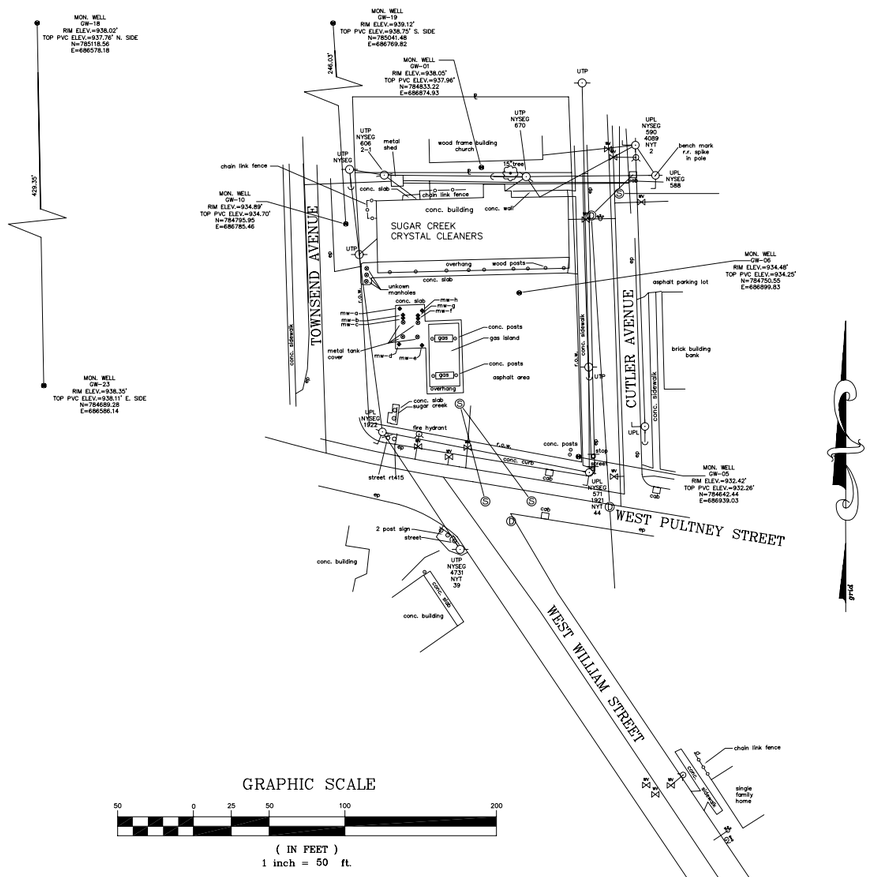
SURVEY NOTES:

1.) HORIZONTAL AND VERTICAL COORDINATES ARE RELATED TO NEW YORK STATE PLANE COORDINATES NAD 83 AND NAVD 88

2.) PROPERTY LINES (℄) AND STREET RIGHT-OF-WAYS (R.O.W.) ARE FROM TAX MAPS AND NOT FIELD VERIFIED.

LEGEND

- UTP NYSEG 6302 — UTILITY POLE
- WATER VALVE
- WATER SEVICE VALVE
- GAS VALVE
- UPL NYSEG 6298 NYT 4 — UTILITY POLE WITH LIGHT
- SURVEY CONTROL POINT
- MON. WELL GW-10 RIM ELEV.= 854.58' TOP PVC ELEV.= 854.17'N=764634.7515 E=760549.2186
- MON. WELL MW-A ELEV.= 854.18' — EXISTING MONITORING WELL
- cob — DRAINAGE CATCH BASIN
- D — DRAINAGE MANHOLE
- S — SANITARY MANHOLE
- SEWER LATERAL LINE
- GAS SERVICE LINE
- OVERHEAD ELECTRIC LINE
- OVERHEAD TELEPHONE LINE
- WATER LINE



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

EXIXTING WELL TABLE

EXISTING MON. WELL MW-A	ELEV.=934.19'
EXISTING MON. WELL MW-B	ELEV.=934.15'
EXISTING MON. WELL MW-C	ELEV.=934.14'
EXISTING MON. WELL MW-D	ELEV.=933.88'
EXISTING MON. WELL MW-E	ELEV.=933.95'
EXISTING MON. WELL MW-F	ELEV.=934.25'
EXISTING MON. WELL MW-G	ELEV.=934.30'
EXISTING MON. WELL MW-H	ELEV.=934.38'

DATE	REVISIONS	BY

DRAWING ALTERATION

WARNING: It is a violation of the New York State Education Law, Article 145, Section 7209, Special Provision 2, for any person unless he is acting under the direction of a Licensed Professional Engineer or Land Surveyor to alter an item in any way. If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the item his seal and notation "altered by" followed by his signature and date of such alteration, and a specific description of the alteration.

BY: _____

DATE: _____

LU ENGINEERS
Civil and Environmental

JOSEPH C. LU ENGINEERING AN
LAND SURVEYING, P.C.
2230 Penfield Road
Penfield, New York 14526
(585) 377-1450
FAX: (585) 377-1266

PROJECT:

CRYSTAL CLEANERS
WEST PULTENEY STREET

CLIENT:

MACTEC ENGINEERING, INC.
511 CONGRESS STREET
PORTLAND, ME 04101

DRAWING TITLE:

ENVIRONMENTAL MAP

DESIGNED BY:	SCALE: 1" = 50'
DRAWN BY: JH	DATE: 3/20/06
CHECKED BY: CJR	PROJECT No. 36408
SHEET 1 OF 1	DRAWING No. 1

APPENDIX E

DATA USABILITY SUMMARY REPORT

DATA USABILITY SUMMARY REPORT
2006 SAMPLING EVENT
REGION 8 DRY CLEANERS-CRYSTAL CLEANERS
CORNING, NEW YORK

Introduction:

Soil, water, and air samples were collected at the Crystal Cleaners site in January 2006 and submitted for off-site laboratory analyses. Samples were analyzed by Chemtech located in Mountainside, NJ. A listing of samples included in this investigation is presented in Table 1. A summary of analytical results is presented in Appendix D, Tables 1.1-1.5. Samples were analyzed for the following parameters:

.

- Soil: Contract Laboratory Program (CLP) procedures for volatile organic compounds (VOCs).
- Water: CLP procedures for volatile organic compounds (VOCs)
- Air: EPA Method TO-15 for VOCs

Deliverables for the off-site laboratory analyses included a Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 1995; NYSDEC, 2000).

A project chemist review was completed based on NYSDEC Division of Environmental Remediation guidance for Data Usability Summary Reports (NYSDEC, 1997). Laboratory QC limits were used during the data evaluation unless noted otherwise. The project chemist review included evaluations of sample collection, data package completeness, holding times, QC data (blanks, instrument calibrations, duplicates, surrogate recovery, and spike recovery), data transcription, electronic data reporting, calculations, and data qualification. With the exception of the items discussed below, results are interpreted to be usable as reported by the laboratory. The following qualifiers are used in the final data presentation.

U = target analyte is not detected at the reported detection limit
J = concentration is estimated
UJ = target analyte is not detected at the reported detection limit and is estimated
R = target analyte was rejected

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

Air - Volatile Organic Compounds

Blank Contamination

A detection of 1,1,1-trichloroethane (1.64µg/m^3) was reported in the method blank. An action level was calculated at five times the detection reported in the blank for 1,1,1-trichloroethane. Sample CRSV00100101XX had a detection for 1,1,1-trichloroethane that was less than the action level and was qualified as non-detect (U).

A detection of acetone (0.55µg/m^3) was reported in the method blank. An action level was calculated at ten times the detection found in the blank for acetone. Samples CRGV001000601XX, CRGV00200601XX, and CRGV00300601XX had detections for acetone that were less than the action level and were qualified as non-detect (U).

Internal Standards

Sample CRGV001000601XX had two internal standards, 1,4-difluorobenzene and chlorobenzene-d5, that had area counts below control limits. Compounds associated with these internal standards in sample CRGV001000601XX were qualified as estimated (J/UJ).

Initial Calibration

The initial calibration associated with samples CRGV001000601XX, CRGV00200601XX, and CRGV00300601XX had a correlation coefficient that was less than the control limit of 0.995 for hexachloro-1,3-butadiene (0.991). Results for this compound in the above samples were non-detect and were qualified as estimated (UJ). The relative response factor (RRF) for 1,3-butadiene (0.035) was less than the response limit of 0.05. Results for 1,3-butadiene in samples CRGV001000601XX, CRGV00200601XX, and CRGV00300601XX were positive and were qualified as estimated (J). The result for 1,3-butadiene in sample CRVS00100101XX was non-detect and was qualified as rejected (R).

Laboratory Control Samples

The LCS percent recovery for 1,4-dioxane (8) was below laboratory control limits of 65-135. Since the recovery for 1,4-dioxane was below 10% the non-detect results in sample CRSV00100101XX, CRGV001000601XX, CRGV00200601XX, and CRGV00300601XX were qualified as rejected (R).

Soil and Water Samples - Volatile Organic Compounds

Holding Times and Sample Collection

The following samples and/or reanalysis (RE)/dilution runs (DL) were outside of the fourteen day holding time. Results for these samples were qualified as estimated (J/UJ).

- Samples CRGW01203401XX (DL), CRGW01502501XX, CRGW01502101XA, CRGW01602101XX, CRGW01601701XA, CRGW01702001XX, and CRGW01701601XA were sampled on 1/23/06 and were analyzed on 2/7/06
- Samples CRGW01202201XA, CRGW01403001XX, and CRGW01402201XA were sampled on 1/23/06 and were analyzed on 2/8/06

- Sample CRGW00501601XD (RE) was sampled on 1/25/06 and analyzed on 2/18/06

Internal Standards

All three internal standards had area counts that were low and outside of control limits in sample CRGS00500801XX. Results for CRGS00500801XX were all non-detect and reporting limits were qualified as estimated (UJ).

Surrogates

The percent recoveries for all three surrogates were greater than laboratory control limits in samples CRGW00601401XA and CRGW00901401XA indicating a high bias. Positive results in samples CRGW00601401XA and CRGW00901401XA were qualified as estimated (J).

The percent recovery for the surrogate 1,2-dichloroethane-d4 (117) in sample CRGW00902201XXDL was greater than laboratory control limits, indicating a high bias. Positive results in sample CRGW00902201XXDL were qualified as estimated (J).

Blank Contamination

Detections of acetone (4.9 µg/L to 20 µg/L), methylene chloride (1.0 µg/L, 0.82 µg/kg), and chloroform (2.4 µg/L) were reported in the trip and method blanks. An action level was calculated at ten times the concentration in the blank for acetone and methylene chloride, and five times the concentration for chloroform. Samples CRSW00100001XX, CRSW00200001XX, CRGW00803701XX, CRGW01202201XA, CRGW01403001XX, CRGW01701601XA, CRGS00100601XX, CRGW00702201XA (RE), CRGW01002601XX, CRGW01102201XA, CRGW01302501XX, CRGS00400701XD, CRGW00402001XB, CRGS00400701XX, CRGW00501601XA, CRGW00601401XA, CRGW00602201XX, CRGW00902201XX, CRGW00501601XDRE, CRGS00200701XX, CRGS00300701XX, and CRGS00500801XX had detections for acetone that were less than the action level and were qualified as non-detect (U). The result for methylene chloride in samples CRGS00100601XX, CRGS00400701XX, and CRGS00400701XD was less than the action level and was also qualified as non-detect (U). Samples CRGW01602101XX and CRGW01601701XA had detections for chloroform that were less than the action level and were qualified as non-detect (U).

Initial Calibration

The initial calibration associated with samples CRGS00400701XX, CRGS00400701XD, and CRGS00100601XX had a percent relative standard deviation that was greater than the validation limit of 30 for acetone (32). Results for acetone were non-detect in samples and were qualified as estimated (UJ).

The initial calibration analyzed on 1/28/06 had a percent relative standard deviation for trichlorofluoromethane (38.1) that was greater than the control limit of 30. Results for trichlorofluoromethane in samples CRGS00200701XX, CRGS00300701XX, and CRGS00500801XX were non-detect and were qualified as estimated (UJ).

Continuing Calibration

A continuing calibration percent differences greater than the validation limit of 25 was reported for chloromethane (34.2) and vinyl chloride (28.0). Sample CRSW00100001XX had a positive detection for vinyl chloride and was qualified as estimated (J). Samples CRSW00200001XX, CRGW00803701XX, CRGW00802501XA, and CRGW01203401XX had non-detect results for vinyl chloride and chloromethane and were qualified as estimated (UJ).

A continuing calibration percent differences greater than the validation limit of 25 was reported for chloroethane (31.3), vinyl chloride (27.1), acetone (34.8), methyl acetate (33.1), 2-butanone (33.1), 4-methyl-2-pentanone (31.6), and 2-hexanone (30.0). Results for these compounds in

samples CRGW01502501XX, CRGW01502101XA, CRGW01602101XX, CRGW01601701XA, CRGW01702001XX, and CRGW01701601XA were non-detect and were qualified as estimated (UJ).

A continuing calibration percent differences greater than the validation limit of 25 was reported for chloromethane (37.4), vinyl chloride (32.8), acetone (37.2), methyl-tert-butyl-ether (27.8), methyl acetate (35.4), 1,1-dichloroethane (31.0), 2-butanone (29.3), 4-methyl-2-pentanone (25.5), and 2-hexanone (26.2). Results for these compounds in samples CRGW01202201XA, CRGW01403001XX, CRGW01402201XA, CRGW00401201XA, and CRGW00402001XB were non-detect for these compounds and were qualified as estimated (UJ).

A continuing calibration percent differences greater than the validation limit of 25 was reported for acetone (-43.0), methyl acetate (-29.9), 2-butanone (-36.9), carbon tetrachloride (-34.0), 1,2-dichloroethane (-32.2), and 1,2-dibromo-3-chloropropane (-33.5). Results for these compounds in samples CRGW00703401XX, CRGW01002601XX, CRGW01103001XX, CRGW00703401XD, CRGW00102601XX, CRGW00202601XX, CRGW00201801XA, CRGW00302601XX, CRGW00301801XA, and CRGW00502601XX were non-detect and were qualified as estimated (UJ).

A continuing calibration percent differences greater than the validation limit of 25 was reported for chloromethane (41.9), vinyl chloride (32.7), cyclohexane (32.5), 2-butanone (45.3), 4-methyl-2-pentanone (41.2), and 2-hexanone (44.3). Results for these compounds in samples CRGW00702201XA (RE), CRGW01302501XX, and CRGW01301701XA were non-detect for all compounds except vinyl chloride in two samples. Results were qualified as estimated (UJ). Samples CRGW01302501XX and CRGW01301701XA had positive results for vinyl chloride and were qualified as estimated (J).

A continuing calibration percent differences greater than the validation limit of 25 was reported for acetone (-46.1), 2-butanone (-60.9), 1,1,1-tetrachloroethane (-31.4), 1,2-dichlorethane (-33.4), tetrachloroethene (-34.4), 1,2-dibromo-3-chloropropane (-34.7), and 1,2,4-trichlorobenzene (-33.9). Results for tetrachloroethene in samples CRGW00501601XA, CRGW00601401XA, CRGW00901401XA, CRGW00602201XX, and CRGW00902201XX were positive and were qualified as estimated (J). All other compounds listed above were non-detect and were qualified as estimated (UJ).

A continuing calibration percent differences greater than the validation limit of 25 was reported for 2-hexanone (167.9). The result for 2-hexanone in sample CRGW00501601XDRE was non-detect and was qualified as estimated (UJ).

Matrix Spike/Matrix Spike Duplicate

The matrix spike duplicate associated with sample CRGW00803701XX had a percent recovery for 1,1-dichloroethene (58) that was below the laboratory established limits. In addition, the relative percent difference between the matrix spike and matrix spike duplicate for 1,1-dichloroethene (29) was also outside of laboratory limits. The result for 1,1-dichloroethene in sample CRGW00803701XX was non-detect and was qualified as estimated (UJ).

Tentatively Identified Compounds

Tentatively identified compounds (TICs) were reported by the laboratory in accordance with CLP method procedures. TICs reported in samples are presented in Table 1.5. Only samples that had TICs reported are included on Table 1.5. If a sample is not listed, no TICs were reported.

TABLE 1

SDG	Sample Name	Date Collected	Method	Parameter	Type
X1322	CRSW00100001XX	1/23/06	OLM 04.2	VOC	FS
X1322	CRSW00100001MS	1/23/06	OLM 04.2	VOC	MS
X1322	CRSW00100001MD	1/23/06	OLM 04.2	VOC	MD
X1322	CRSW00200001XX	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW00803701XX	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW00803701MS	1/23/06	OLM 04.2	VOC	MS
X1322	CRGW00803701MD	1/23/06	OLM 04.2	VOC	MD
X1322	CRGW00802501XA	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW01203401XX	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW01202201XA	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW01403001XX	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW01402201XA	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW01502501XX	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW01502101XA	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW01602101XX	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW01601701XA	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW01702001XX	1/23/06	OLM 04.2	VOC	FS
X1322	CRGW01701601XA	1/23/06	OLM 04.2	VOC	FS
X1322	CRQTOO1XXX01XX	1/23/06	OLM 04.2	VOC	TB
X1339	CRGS00100601XX	1/24/06	OLM 04.2	VOC	FS
X1339	CRGS00100601XX	1/24/06	D2216	Percent Moisture	FS
X1339	CRGS00100601MS	1/24/06	OLM 04.2	VOC	MS
X1339	CRGS00100601MS	1/24/06	D2216	Percent Moisture	MS
X1339	CRGS00100601MD	1/24/06	OLM 04.2	VOC	MD
X1339	CRGS00100601MD	1/24/06	D2216	Percent Moisture	MD
X1339	CRGW00102601XX	1/24/06	OLM 04.2	VOC	FS
X1339	CRGW00102601MS	1/24/06	OLM 04.2	VOC	MS
X1339	CRGW00102601MD	1/24/06	OLM 04.2	VOC	MD
X1339	CRGW00703401XX	1/24/06	OLM 04.2	VOC	FS
X1339	CRGW00703401XD	1/24/06	OLM 04.2	VOC	FD
X1339	CRGW00702201XA	1/24/06	OLM 04.2	VOC	FS
X1339	CRGW01002601XX	1/24/06	OLM 04.2	VOC	FS
X1339	CRGW01103001XX	1/24/06	OLM 04.2	VOC	FS
X1339	CRGW01102201XA	1/24/06	OLM 04.2	VOC	FS
X1339	CRGW01302501XX	1/24/06	OLM 04.2	VOC	FS
X1339	CGRW01301701XA	1/24/06	OLM 04.2	VOC	FS
X1339	CRQTOO2XXX01XX	1/24/06	OLM 04.2	VOC	TB
X1380	CRSV00100101XX	1/26/06	TO-15	VOC	FS
X1377	CRGS00400701XX	1/26/06	OLM 04.2	VOC	FS
X1377	CRGS00400701XX	1/26/06	D2216	Percent Moisture	FS
X1377	CRGS00400701XD	1/26/06	OLM 04.2	VOC	FD
X1377	CRGS00400701XD	1/26/06	D2216	Percent Moisture	FD

SDG	Sample Name	Date Collected	Method	Parameter	Type
X1377	CRGW00403001XX	1/26/06	OLM 04.2	SVOC	FS
X1377	CRGW00401201XA	1/26/06	OLM 04.2	VOC	FS
X1377	CRGV00100601XX	1/26/06	TO-15	VOC	FS
X1377	CRGV00200601XX	1/26/06	TO-15	VOC	FS
X1377	CRGV00300601XX	1/26/06	TO-15	VOC	FS
X1377	CRQTOO4XXX01XX	1/26/06	OLM 04.2	VOC	TB
X1377	CRGW00402001XB	1/26/06	OLM 04.2	VOC	FS
X1362	CRGS00200701XX	1/25/06	OLM 04.2	VOC	FS
X1362	CRGS00200701XX	1/25/06	D2216	Percent Moisture	FS
X1362	CRGS00300701XX	1/25/06	OLM 04.2	VOC	FS
X1362	CRGS00300701XX	1/25/06	D2216	Percent Moisture	FS
X1362	CRGS00500801XX	1/25/06	OLM 04.2	VOC	FS
X1362	CRGS00500801XX	1/25/06	D2216	Percent Moisture	FS
X1362	CRGW00202601XX	1/25/06	OLM 04.2	VOC	FS
X1362	CRGW00201801XA	1/25/06	OLM 04.2	VOC	FS
X1362	CRGW00302601XX	1/25/06	OLM 04.2	VOC	FS
X1362	CRGW00301801XA	1/25/06	OLM 04.2	VOC	FS
X1362	CRGW00502601XX	1/25/06	OLM 04.2	VOC	FS
X1362	CRGW00501601XA	1/25/06	OLM 04.2	VOC	FS
X1362	CRGW00501601XD	1/25/06	OLM 04.2	VOC	FD
X1362	CRGW00602201XX	1/25/06	OLM 04.2	VOC	FS
X1362	CRGW00601401XA	1/25/06	OLM 04.2	VOC	FS
X1362	CRGW00902201XX	1/25/06	OLM 04.2	VOC	FS
X1362	CRGW00901401XA	1/25/06	OLM 04.2	VOC	FS
X1362	CRQTOO3XXX01XX	1/25/06	OLM 04.2	VOC	TB

Reference:

New York State Department of Environmental Conservation (NYSDEC), 1995. "Analytical Services Protocols"; 10/95 Edition; October 1995.

New York State Department of Environmental Conservation (NYSDEC), 1997. "Guidance for the Development of Data Usability Reports"; Division of Environmental Remediation; September 1997.

DATA USABILITY SUMMARY REPORT
2006 SAMPLING EVENT
REGION 8 DRY CLEANERS-CRYSTAL CLEANERS
ELMIRA, NEW YORK

Introduction:

Water samples were collected at the Crystal Cleaners site in October-November 2006 and submitted for off-site laboratory analyses. Samples were analyzed by Chemtech located in Mountainside, NJ. A listing of samples included in this investigation is presented in Table 1. A summary of analytical results is presented in Appendix D, Tables 1.6-1.7. Samples were analyzed for the following parameters:

.

- Water: Contract Laboratory Program (CLP) procedures for volatile organic compounds (VOCs)

Deliverables for the off-site laboratory analyses included a Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 2000).

A project chemist review was completed based on NYSDEC Division of Environmental Remediation guidance for Data Usability Summary Reports (NYSDEC, 2002). Laboratory QC limits were used during the data evaluation unless noted otherwise. The project chemist review included evaluations of sample collection, data package completeness, holding times, QC data (blanks, instrument calibrations, duplicates, surrogate recovery, and spike recovery), data transcription, electronic data reporting, calculations, and data qualification. With the exception of the items discussed below, results are interpreted to be usable as reported by the laboratory. The following qualifiers are used in the final data presentation.

U = target analyte is not detected at the reported detection limit
J = concentration is estimated
UJ = target analyte is not detected at the reported detection limit and is estimated

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

Water Samples - Volatile Organic Compounds

Surrogates

The percent recovery for the surrogate, d8-toluene (87), was below the laboratory control limits in sample CRGW02302701 indicating a potential low bias. Positive and non-detected results for CRGW02302701 were qualified as estimated (J/UJ).

Blank Contamination

Detections of acetone (4.8 to 9.1 µg/L) were reported in the method blanks and trip blank. An action level was calculated at ten times the maximum acetone detection reported in the blanks. The low level detections of acetone in samples CRGW01901901XX, CRMW00601301XX,

CRGW02102601XX, CRGW02201801XX, CRGW02501201XD, and CRGW02502201XX were less than the action level and were qualified as non-detect (U).

Initial Calibration

The initial calibration had a percent relative standard deviation that was greater than the control limit of 30 for chloroethane (40). Chloroethane was not detected in the samples, and quantitation limits were qualified as estimated (UJ) in all samples.

Continuing Calibration

Percent differences between the initial calibration average relative response factors (RRFs) and continuing calibration RRFs for dichlorodifluoromethane (27), trichlorofluoromethane (30), chloromethane (24), carbon disulfide (23), 1,1,2-trichlorotrifluoroethane (24), cyclohexane (20), and 1,1-dichloroethene (23) were greater than the control limit of 20. Results for these analytes were non-detect in the associated samples, and quantitation limits for dichlorodifluoromethane, trichlorofluoromethane, chloromethane, carbon disulfide, 1,1,2-trichlorotrifluoroethane, cyclohexane, and 1,1-dichloroethene were qualified as estimated (UJ) in samples CRGW01901901XX, CRMW00501201XX, and CRMW00601301XX.

The percent difference between the initial calibration average RRF and continuing calibration RRF for methyl acetate (70) was above the control limit of 20. Methyl acetate was not detected in the associated samples, and quantitation limits for methyl acetate were qualified as estimated (UJ) in samples CRGW01902901XX, CRMW00102001XX, CRMW01001301XX, CRGW02101901XX, CRGW02102601XX, CRGW02201801XX, and CRGW02202801XX.

Percent differences between the initial calibration average RRFs and continuing calibration RRFs for dichlorodifluoromethane (20), trichlorofluoromethane (22), acetone (-22), and 2-butanone (-25) were greater than the control limit of 20. Results for these analytes were non-detect in the associated samples, and quantitation limits for dichlorodifluoromethane, trichlorofluoromethane, acetone, and 2-butanone were qualified as estimated (UJ) in samples CRGW02201801XX(RE), CRGW02402301XX, CRGW02401301XX, CRGW02501201XX, CRGW02501201XD, CRGW02502201XX, CRGW01802001XX, CRGW01803001XX, CRGW02001901XX, and CRGW02002901XX.

Percent differences between the initial calibration average RRFs and continuing calibration RRFs for dichlorodifluoromethane (27), chloromethane (22), vinyl chloride (24), trichlorofluoromethane (28), 1,1,2-trichlorotrifluoroethane (26), 1,1-dichloroethene (27), carbon disulfide (24), methyl acetate (74), cyclohexane (30), carbon tetrachloride (24), and 1,1,1-trichloroethane (25) were greater than the control limit of 20. These analytes were not detected in the associated samples, and quantitation limits for dichlorodifluoromethane, chloromethane, vinyl chloride, trichlorofluoromethane, 1,1,2-trichlorotrifluoroethane, 1,1-dichloroethene, carbon disulfide, methyl acetate, cyclohexane, carbon tetrachloride, and 1,1,1-trichloroethane in samples CRGW02301901XX and CRGW20302701XX were qualified as estimated (UJ).

Laboratory Control Samples

Percent recovery for trichloroethene (130) in the LCS associated with a subset of samples was above the laboratory control limits, indicating a potential high bias. The positive detection of trichloroethene in sample CRMW00501201XX was qualified as estimated (J) and may be biased high.

Internal Standards

The instrument response for internal standard 1,4-difluorobenzene in sample CRGW02201801XX(RE) was below control limits. Due to surrogate recovery problems for the initial analysis of CRGW02201801XX, the reanalysis (RE) was selected for final reporting. Results for all target analytes associated with the out of control internal standard were qualified as estimated in sample CRGW02201801XX(RE). The following analytes associated with the non-compliant internal standard were not detected in sample CRGW02201801XX(RE) and quantitation limits were qualified as estimated (UJ): 2-butanone, 1,1,1-trichloroethane, carbon tetrachloride, benzene, 1,2-dichloroethane, trichloroethene, methylcyclohexane, 1,2-dichloropropane, bromodichloromethane, trans-1,3-dichloropropene, cis-1,3-dichloropropene, 1,1,2-trichloroethane, 1,2-dibromoethane, and bromoform.

Tentatively Identified Compounds

Tentatively identified compounds (TICs) were reported by the laboratory in accordance with CLP method procedures. TICs reported in samples are presented in Table 1.7. Only samples that had TICs reported are included on Table 1.7. If a sample is not listed, no TICs were reported.

TABLE 1

SDG	Sample Name	Date Collected	Method	Parameter	Type
X5203	CRGW01901901XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRGW01902901XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRMW00102001XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRMW00102001MS	11/1/06	OLM 04.2	VOC	MS
X5203	CRMW00102001MD	11/1/06	OLM 04.2	VOC	MD
X5203	CRMW00501201XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRMW00601301XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRMW01001301XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRGW02101901XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRGW02102601XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRGW02201801XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRGW02202801XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRGW02402301XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRGW02401301XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRGW02501201XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRGW02501201XD	11/1/06	OLM 04.2	VOC	FD
X5203	CRGW02502201XX	11/1/06	OLM 04.2	VOC	FS
X5203	CRTB001XXX02XX	11/1/06	OLM 04.2	VOC	TB
X5268	CRGW01802001XX	11/2/06	OLM 04.2	VOC	FS
X5268	CRGW01803001XX	11/2/06	OLM 04.2	VOC	FS
X5268	CRGW02001901XX	11/2/06	OLM 04.2	VOC	FS
X5268	CRGW02002901XX	11/2/06	OLM 04.2	VOC	FS
X5268	CRGW02301901XX	11/2/06	OLM 04.2	VOC	FS
X5268	CRGW02302701XX	11/2/06	OLM 04.2	VOC	FS

Reference:

New York State Department of Environmental Conservation (NYSDEC), 2000. "Analytical Services Protocols"; June 2000.

New York State Department of Environmental Conservation (NYSDEC), 2002. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; Draft DER-10; Division of Environmental Remediation; December 2002.

Data Validator: Julie Ricardi
January 26, 2007

QA Officer: Chris Ricardi NRCC-EAC

Date: 2/2/07

Appendix E
Table 1.1: Soil VOC Results

Lab Sample Id	X1339-01		X1362-01		X1362-02		X1362-03		X1377-01		X1377-02	
Lab Sample Delivery Group	X1339		X1362		X1362		X1362		X1377		X1377	
Location Name	GS-1		GS-2		GS-3		GS-5		GS-4		GS-4	
Field Sample Id	CRGS00100601XX		CRGS00200701XX		CRGS00300701XX		CRGS00500801XX		CRGS00400701XX		CRGS00400701XD	
Field Sample Date	1/24/2006		1/25/2006		1/25/2006		1/25/2006		1/26/2006		1/26/2006	
Qc Code	FS		FS		FS		FS		FS		FD	
Parameter Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,1-Trichloroethane	11	U	11	U	12	U	12	UJ	11	U	12	U
1,1,2,2-Tetrachloroethane	11	U	11	U	12	U	12	UJ	11	U	12	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	11	U	11	U	12	U	12	UJ	11	U	12	U
1,1,2-Trichloroethane	11	U	11	U	12	U	12	UJ	11	U	12	U
1,1-Dichloroethane	11	U	11	U	12	U	12	UJ	11	U	12	U
1,1-Dichloroethene	11	U	11	U	12	U	12	UJ	11	U	12	U
1,2,4-Trichlorobenzene	0.58	J	11	U	12	U	12	UJ	11	U	12	U
1,2-Dibromo-3-chloropropane	11	U	11	U	12	U	12	UJ	11	U	12	U
1,2-Dibromoethane	11	U	11	U	12	U	12	UJ	11	U	12	U
1,2-Dichlorobenzene	11	U	11	U	12	U	12	UJ	11	U	12	U
1,2-Dichloroethane	11	U	11	U	12	U	12	UJ	11	U	12	U
1,2-Dichloropropane	11	U	11	U	12	U	12	UJ	11	U	12	U
1,3-Dichlorobenzene	11	U	11	U	12	U	12	UJ	11	U	12	U
1,4-Dichlorobenzene	0.59	J	11	U	12	U	12	UJ	11	U	12	U
2-Butanone	57	U	57	U	59	U	61	UJ	56	U	58	U
2-Hexanone	57	U	57	U	59	U	61	UJ	56	U	58	U
4-Methyl-2-pentanone	57	U	57	U	59	U	61	UJ	56	U	58	U
Acetic acid, methyl ester	11	U	11	U	12	U	12	UJ	11	U	12	U
Acetone	57	UJ	57	U	59	U	61	UJ	56	UJ	58	UJ
Benzene	0.73	J	11	U	12	U	12	UJ	11	U	0.65	J
Bromodichloromethane	11	U	11	U	12	U	12	UJ	11	U	12	U
Bromoform	11	U	11	U	12	U	12	UJ	11	U	12	U
Bromomethane	11	U	11	U	12	U	12	UJ	11	U	12	U
Carbon disulfide	11	U	11	U	12	U	12	UJ	11	U	12	U
Carbon tetrachloride	11	U	11	U	12	U	12	UJ	11	U	12	U
Chlorobenzene	11	U	11	U	12	U	12	UJ	11	U	12	U
Chlorodibromomethane	11	U	11	U	12	U	12	UJ	11	U	12	U
Chloroethane	11	U	11	U	12	U	12	UJ	11	U	12	U
Chloroform	11	U	11	U	12	U	12	UJ	11	U	12	U
Chloromethane	11	U	11	U	12	U	12	UJ	11	U	12	U
Cis-1,2-Dichloroethene	11	U	11	U	12	U	12	UJ	11	U	12	U
cis-1,3-Dichloropropene	11	U	11	U	12	U	12	UJ	11	U	12	U
Cyclohexane	11	U	11	U	12	U	12	UJ	11	U	12	U
Dichlorodifluoromethane	11	U	11	U	12	U	12	UJ	11	U	12	U
Ethyl benzene	11	U	11	U	12	U	12	UJ	11	U	12	U
Isopropylbenzene	11	U	11	U	12	U	12	UJ	11	U	12	U
Methyl cyclohexane	11	U	11	U	12	U	12	UJ	11	U	12	U
Methyl Tertbutyl Ether	11	U	11	U	12	U	12	UJ	11	U	12	U
Methylene chloride	10	U	1.5	J	1.6	J	12	UJ	11	U	12	U
o-Xylene	11	U	11	U	12	U	12	UJ	11	U	12	U
Styrene	11	U	11	U	12	U	12	UJ	11	U	12	U

Table Created by: ASZ 6/1/06
Table Checked by: CRS 7/30/06

Appendix E
Table 1.1: Soil VOC Results

Lab Sample Id	X1339-01		X1362-01		X1362-02		X1362-03		X1377-01		X1377-02	
Lab Sample Delivery Group	X1339		X1362		X1362		X1362		X1377		X1377	
Location Name	GS-1		GS-2		GS-3		GS-5		GS-4		GS-4	
Field Sample Id	CRGS00100601XX		CRGS00200701XX		CRGS00300701XX		CRGS00500801XX		CRGS00400701XX		CRGS00400701XD	
Field Sample Date	1/24/2006		1/25/2006		1/25/2006		1/25/2006		1/26/2006		1/26/2006	
Qc Code	FS		FS		FS		FS		FS		FD	
Parameter Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
Tetrachloroethene	0.64	J	11	U	12	U	12	UJ	11	U	12	U
Toluene	0.66	J	11	U	12	U	12	UJ	11	U	0.8	J
trans-1,2-Dichloroethene	11	U	11	U	12	U	12	UJ	11	U	12	U
trans-1,3-Dichloropropene	11	U	11	U	12	U	12	UJ	11	U	12	U
Trichloroethene	11	U	11	U	12	U	12	UJ	11	U	12	U
Trichlorofluoromethane	1.6	J	11	UJ	12	UJ	12	UJ	11	U	12	U
Vinyl chloride	11	U	11	U	12	U	12	UJ	11	U	12	U
Xylene, m/p	1.3	J	11	U	12	U	12	UJ	11	U	12	U

Notes:
Results in micrograms per kilogram (µg/kg)
Samples analyzed for VOCs by EPA method OLM04.2
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration above the reporting limit
J = Estimated Value

Table Created by: ASZ 6/1/06
Table Checked by: CRS 7/30/06

Appendix E
Table 1.2: Groundwater VOC Results

Lab Sample Id	X1322-05		X1322-08		X1322-09		X1322-10		X1322-11		X1322-12		X1322-13		X1322-14		X1322-15	
Lab Sample Delivery Group	X1322		X1322		X1322		X1322		X1322		X1322		X1322		X1322		X1322	
Loc Name	GW-8		GW-8		GW-12		GW-12		GW-14		GW-14		GW-15		GW-15		GW-16	
Field Sample Id	CRGW00803701XX		CRGW00802501XA		CRGW01203401XX		CRGW01202201XA		CRGW01403001XX		CRGW01402201XA		CRGW01502501XX		CRGW01502101XA		CRGW01602101XX	
Field Sample Date	1/23/2006		1/23/2006		1/23/2006		1/23/2006		1/23/2006		1/23/2006		1/23/2006		1/23/2006		1/23/2006	
Qc Code	FS		FS		FS		FS		FS		FS		FS		FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,1-Trichloroethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,1,2-Trichloroethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,1-Dichloroethane	10	UJ	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,1-Dichloroethene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,2,4-Trichlorobenzene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,2-Dibromoethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,2-Dichlorobenzene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,2-Dichloroethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,2-Dichloropropane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,3-Dichlorobenzene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,4-Dichlorobenzene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
2-Butanone	50	U	50	U	50	U	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ
2-Hexanone	50	U	50	U	50	U	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ
4-Methyl-2-pentanone	50	U	50	U	50	U	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ
Acetic acid, methyl ester	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Acetone	50	U	50	U	50	U	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ
Benzene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Bromodichloromethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Bromoform	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Bromomethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Carbon disulfide	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Carbon tetrachloride	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Chlorobenzene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Chlorodibromomethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Chloroethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Chloroform	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Chloromethane	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Cis-1,2-Dichloroethene	0.85	J	3.6	J	25		5.5	J	5.2	J	2.2	J	8.3	J	7	J	10	UJ
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Cyclohexane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Dichlorodifluoromethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Ethyl benzene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Isopropylbenzene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Methyl cyclohexane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Methyl Tertbutyl Ether	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Methylene chloride	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
o-Xylene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Styrene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Tetrachloroethene	130		24		210	DJ	42	J	13	J	3.4	J	87	J	65	J	6.3	J
Toluene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
trans-1,2-Dichloroethene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
trans-1,3-Dichloropropene	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Trichloroethene	10	U	0.93	J	6.9	J	5	J	1.7	J	10	UJ	2.7	J	2.3	J	10	UJ
Trichlorofluoromethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Vinyl chloride	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Xylene, m/p	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ

Notes:
Results in micrograms per liter (µg/L)
Samples analyzed for VOCs by EPA method OLM04.2
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration above the reporting limit
J = Estimated value
D = Results were reported from a duplicate analytical run

Appendix E
Table 1.2: Groundwater VOC Results

Lab Sample Id	X1322-16		X1322-17		X1322-18		X1339-04		X1339-07		X1339-08		X1339-09RE		X1339-10		X1339-11	
Lab Sample Delivery Group	X1322		X1322		X1322		X1339		X1339		X1339		X1339		X1339		X1339	
Loc Name	GW-16		GW-17		GW-17		GW-1		GW-7		GW-7		GW-7		GW-10		GW-11	
Field Sample Id	CRGW01601701XA		CRGW01702001XX		CRGW01701601XA		CRGW00102601XX		CRGW00703401XX		CRGW00703401XD		CRGW00702201XA		CRGW01002601XX		CRGW01103001XX	
Field Sample Date	1/23/2006		1/23/2006		1/23/2006		1/24/2006		1/24/2006		1/24/2006		1/24/2006		1/24/2006		1/24/2006	
Qc Code	FS		FS		FS		FS		FS		FD		FS		FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,1-Trichloroethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	UJ	10	UJ
1,2-Dibromoethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichlorobenzene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	UJ	10	UJ
1,2-Dichloropropane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
1,3-Dichlorobenzene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ
2-Hexanone	50	UJ	50	UJ	50	UJ	50	U	50	U	50	U	50	UJ	50	U	50	U
4-Methyl-2-pentanone	50	UJ	50	UJ	50	UJ	50	U	50	U	50	U	50	UJ	50	U	50	U
Acetic acid, methyl ester	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	UJ	10	UJ
Acetone	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	U	50	UJ	50	UJ
Benzene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Bromoform	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	UJ	10	UJ
Chlorobenzene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Chlorodibromomethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Chloroethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Chloromethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	UJ	10	U	10	U
Cis-1,2-Dichloroethene	10	UJ	3	J	3	J	10	U	0.53	J	10	U	1.5	J	7.2	J	10	U
cis-1,3-Dichloropropene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	UJ	10	U	10	U
Dichlorodifluoromethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Ethyl benzene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	2.8	J	10	U
Isopropylbenzene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	1.8	J	10	U
Methyl cyclohexane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	4.4	J	10	U
Methyl Tertbutyl Ether	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Methylene chloride	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
o-Xylene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Styrene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	7.1	J	67	J	64	J	11		230	D	200	D	110		27		0.84	J
Toluene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	10	UJ	1.5	J	1.4	J	10	U	1.5	J	1.3	J	1.4	J	4.4	J	10	U
Trichlorofluoromethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	UJ	10	U	10	U
Xylene, m/p	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	2.4	J	10	U

Notes:
Results in micrograms per liter (µg/L)
Samples analyzed for VOCs by EPA method OLM04.2
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration above the reporting limit
J = Estimated value
D = Results were reported from a duplicate analytical run

Appendix E
Table 1.2: Groundwater VOC Results

Lab Sample Id	X1339-12		X1339-13		X1339-14		X1362-04		X1362-05		X1362-06		X1362-07		X1362-08		X1362-09	
Lab Sample Delivery Group	X1339		X1339		X1339		X1362		X1362		X1362		X1362		X1362		X1362	
Loc Name	GW-11		GW-13		GW-13		GW-2		GW-2		GW-3		GW-3		GW-5		GW-5	
Field Sample Id	CRGW01102201XA		CRGW01302501XX		CRGW01301701XA		CRGW00202601XX		CRGW00201801XA		CRGW00302601XX		CRGW00301801XA		CRGW00502601XX		CRGW00501601XA	
Field Sample Date	1/24/2006		1/24/2006		1/24/2006		1/25/2006		1/25/2006		1/25/2006		1/25/2006		1/25/2006		1/25/2006	
Qc Code	FS		FS		FS		FS		FS		FS		FS		FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,1-Trichloroethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	UJ
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	10	U	1	J	1.6	J	10	U	10	U	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	UJ
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,2-Dibromoethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,2-Dichloropropane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ
2-Hexanone	50	UJ	50	UJ	50	UJ	50	U	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	UJ	50	UJ	50	UJ	50	U	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U
Acetone	50	U	50	U	50	U	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ
Benzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromoform	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U
Chlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chlorodibromomethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloromethane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	10	U	440	D	580	D	10	U	10	U	10	U	10	U	10	U	1.8	J
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
Dichlorodifluoromethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Ethyl benzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methyl cyclohexane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methyl Tertbutyl Ether	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methylene chloride	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
o-Xylene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Styrene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	9.7	J	390	D	820	D	0.93	J	2.1	J	0.74	J	0.88	J	3	J	5.5	J
Toluene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	10	U	6.5	J	6.3	J	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	10	U	120		180		10	U	10	U	10	U	10	U	10	U	0.57	J
Trichlorofluoromethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	10	UJ	14	J	56	J	10	U	10	U	10	U	10	U	10	U	10	U
Xylene, m/p	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U

Notes:
Results in micrograms per liter (µg/L)
Samples analyzed for VOCs by EPA method OLM04.2
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration above the reporting limit
J = Estimated value
D = Results were reported from a duplicate analytical run

Appendix E
Table 1.2: Groundwater VOC Results

Lab Sample Id	X1362-10RE		X1362-11		X1362-12		X1362-13		X1362-14		X1377-03		X1377-04		X1377-09	
Lab Sample Delivery Group	X1362		X1362		X1362		X1362		X1362		X1377		X1377		X1377	
Loc Name	GW-5		GW-6		GW-6		GW-9		GW-9		GW-4		GW-4		GW-4	
Field Sample Id	CRGW00501601XD		CRGW00602201XX		CRGW00601401XA		CRGW00902201XX		CRGW00901401XA		CRGW00403001XX		CRGW00401201XA		CRGW00402001XB	
Field Sample Date	1/25/2006		1/25/2006		1/25/2006		1/25/2006		1/25/2006		1/26/2006		1/26/2006		1/26/2006	
Qc Code	FD		FS		FS		FS		FS		FS		FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,1-Trichloroethane	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	10	UJ	10	U	10	U	10	U	10	U	3.9	J	10	U	10	U
1,1-Dichloroethane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	UJ	10	UJ
1,1-Dichloroethene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
1,2-Dibromoethane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichlorobenzene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
1,2-Dichloropropane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,3-Dichlorobenzene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	U	50	UJ	50	UJ
2-Hexanone	50	UJ	50	U	50	U	50	U	50	U	50	U	50	UJ	50	UJ
4-Methyl-2-pentanone	50	UJ	50	U	50	U	50	U	50	U	50	U	50	UJ	50	UJ
Acetic acid, methyl ester	10	UJ	10	U	10	U	10	U	10	U	10	U	10	UJ	10	UJ
Acetone	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ	50	U	50	UJ	50	UJ
Benzene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromoform	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chlorodibromomethane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroethane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloromethane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	UJ	10	UJ
Cis-1,2-Dichloroethene	2.1	J	10	U	10	U	2.8	J	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	UJ	10	UJ
Dichlorodifluoromethane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Ethyl benzene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methyl cyclohexane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Methyl Tertbutyl Ether	10	UJ	10	U	10	U	10	U	10	U	10	U	10	UJ	10	UJ
Methylene chloride	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
o-Xylene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Styrene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	5.4	J	4.1	J	7.9	J	280	DJ	74	J	610	D	15		15	
Toluene	10	UJ	0.55	J	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	10	UJ	10	U	10	U	11		1.9	J	10	U	10	U	10	U
Trichlorofluoromethane	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	10	UJ	10	U	10	U	10	U	10	U	10	U	10	UJ	10	UJ
Xylene, m/p	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U

Notes:
Results in micrograms per liter (µg/L)
Samples analyzed for VOCs by EPA method OLM04.2
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected at a concentration above the reporting limit
J = Estimated value
D = Results were reported from a duplicate analytical run

Appendix E
Table 1.3: Surfacewater (Sump) VOC Results

Lab Sample Id	X1322-01		X1322-04	
Lab Sample Delivery Group	X1322		X1322	
Loc Name	SW-1		SW-2	
Field Sample Id	CRSW00100001XX		CRSW00200001XX	
Field Sample Date	1/23/2006		1/23/2006	
Qc Code	FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,1-Trichloroethane	10	U	10	U
1,1,2,2-Tetrachloroethane	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	U	10	U
1,1,2-Trichloroethane	10	U	10	U
1,1-Dichloroethane	10	U	10	U
1,1-Dichloroethene	10	U	10	U
1,2,4-Trichlorobenzene	10	U	10	U
1,2-Dibromo-3-chloropropane	10	U	10	U
1,2-Dibromoethane	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U
1,2-Dichloroethane	10	U	10	U
1,2-Dichloropropane	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U
2-Butanone	50	U	50	U
2-Hexanone	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U
Acetic acid, methyl ester	10	U	10	U
Acetone	50	U	50	U
Benzene	10	U	10	U
Bromodichloromethane	10	U	10	U
Bromoform	10	U	10	U
Bromomethane	10	U	10	U
Carbon disulfide	10	U	10	U
Carbon tetrachloride	10	U	10	U
Chlorobenzene	10	U	10	U
Chlorodibromomethane	10	U	10	U
Chloroethane	10	U	10	U
Chloroform	10	U	10	U
Chloromethane	10	UJ	10	UJ
Cis-1,2-Dichloroethene	88		1.2	J
cis-1,3-Dichloropropene	10	U	10	U
Cyclohexane	10	U	10	U
Dichlorodifluoromethane	10	U	10	U
Ethyl benzene	10	U	10	U
Isopropylbenzene	10	U	10	U
Methyl cyclohexane	10	U	10	U
Methyl Tertbutyl Ether	10	U	10	U
Methylene chloride	10	U	10	U
o-Xylene	10	U	10	U
Styrene	10	U	10	U
Tetrachloroethene	17		8.1	J
Toluene	10	U	10	U
trans-1,2-Dichloroethene	0.94	J	10	U
trans-1,3-Dichloropropene	10	U	10	U
Trichloroethene	1.7	J	10	U
Trichlorofluoromethane	10	U	10	U
Vinyl chloride	3.2	J	10	UJ
Xylene, m/p	10	U	10	U

Notes:
Results in micrograms per liter (µg/L)
Samples analyzed for VOCs by EPA method OLM04.2
QC Code:
FS = Field Sample
Qualifiers:
U = Not detected at a concentration above the reporting limit
J = Estimated value

Table Created by: ASZ 6/1/06
Table Checked by: CRS 7/30/06

Appendix E
Table 1.4: Soil Vapor VOC Results

Lab Sample Id	X1377-05		X1377-06		X1377-07		X1380-01	
Lab Sample Delivery Group	X1377		X1377		X1377		X1380	
Loc Name	GV-01		GV-02		GV-03		SV-01	
Field Sample Id	CRGV00100601XX		CRGV00200601XX		CRGV00300601XX		CRSV00100101XX	
Field Sample Date	1/26/2006		1/26/2006		1/26/2006		1/26/2006	
Qc Code	FS		FS		FS		FS	
Param Name	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	1.47	UJ	1.58	U	1.47	U	7.62	U
1,1,2,2-Tetrachloroethane	0.69	U	0.69	U	0.69	U	2.75	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.54		0.76	U	0.76	U	3.06	U
1,1,2-Trichloroethane	0.54	UJ	0.54	U	0.54	U	2.18	U
1,1-Dichloroethane	0.4	U	0.4	U	0.4	U	1.62	U
1,1-Dichloroethene	0.4	U	0.4	U	0.4	U	1.59	U
1,2,4-Trichlorobenzene	0.74	U	0.74	U	0.74	U	2.96	U
1,2,4-Trimethylbenzene	2.85		2.7		2.55		1.96	U
1,2-Dibromoethane	0.77	U	0.77	U	0.77	U	3.08	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.7	U	0.7	U	0.7	U	2.8	U
1,2-Dichlorobenzene	0.6	U	0.6	U	0.6	U	2.4	U
1,2-Dichloroethane	0.4	U	0.4	U	0.4	U	1.62	U
1,2-Dichloropropane	0.46	UJ	0.46	U	0.46	U	1.85	U
1,3,5-Trimethylbenzene	0.49	U	0.49	U	1.62		1.96	U
1,3-Dichlorobenzene	0.6	U	0.6	U	0.6	U	2.4	U
1,4-Dichlorobenzene	0.6	U	0.6	U	0.6	U	2.4	U
1,4-Dioxane		R		R		R		R
2-Butanone	20.2		16.5		14.3		3.65	
2-Hexanone	0.82	UJ	0.82	U	0.82	U	3.27	U
2-Propanol	39.4		25.5		26.2		8.83	
4-Ethyltoluene	0.59		0.49	U	0.49	U	1.96	U
4-Methyl-2-pentanone	0.82	UJ	0.82	U	0.82	U	3.27	U
Acetone	113	D	149	D	105	D	114	B
Allyl chloride	0.31	U	0.31	U	0.31	U	1.26	U
Benzene	5.33	J	6.38		3.57		13.7	
Benzyl chloride	0.58	U	0.58	U	0.58	U	2.31	U
Bromodichloromethane	0.67	UJ	0.67	U	0.67	U	2.68	U
Bromoform	1.03	UJ	1.03	U	1.03	U	4.14	U
Bromomethane	0.39	U	0.39	U	0.39	U	1.55	U
Butadiene, 1,3-	12	J	21.8	J	8.44	J		R
Carbon disulfide	1.31		1.55		0.9		3.36	
Carbon tetrachloride	0.63	UJ	0.63	U	0.63	U	2.52	U
Chlorobenzene	0.46	UJ	0.46	U	0.46	U	1.85	U
Chlorodibromomethane	0.85	UJ	0.85	U	0.85	U	3.4	U
Chloroethane	0.27	U	0.27	U	0.27	U	1.06	U
Chloroform	0.49	U	0.49	U	0.49	U	1.95	U
Chloromethane	1.66		1.55		1.25		1.23	
Cis-1,2-Dichloroethene	0.4	U	0.4	U	0.4	U	1.59	U
cis-1,3-Dichloropropene	0.45	UJ	0.45	U	0.45	U	1.82	U
Cyclohexane	0.34	U	0.34	U	0.34	U	41.3	
Dichlorodifluoromethane	2.38		2.38		2.03		2.38	
Ethyl acetate	9.83		4.53		8.6		71.3	
Ethyl benzene	1.47	J	0.95		1.52		1.73	U
Heptane	1.76		2.17		1.68		71	
Hexachlorobutadiene	1.07	UJ	1.07	UJ	1.07	UJ	4.27	U
Hexane	2.92		5.38		2.67		111	
Isooctane	0.65		0.79		0.61		1.87	U
Methyl Tertbutyl Ether	0.36	U	0.36	U	0.36	U	1.44	U
Methylene chloride	0.7	U	1.01		0.7	U	2.78	U
o-Xylene	1.17	J	0.82		0.74		1.73	U
Propylene	46.6	D	75.1	D	39.5	D	0.69	U
Styrene	0.43	UJ	0.43	U	0.43	U	1.7	U
Tetrachloroethene	4.21	J	6.04		4.28		747	D
Tetrahydrofuran	0.44		0.59	U	0.59	U	2.36	U
Toluene	7.64	J	7.19		5.08		18.8	
trans-1,2-Dichloroethene	0.4	U	0.4	U	0.4	U	1.59	U
trans-1,3-Dichloropropene	0.45	UJ	0.45	U	0.45	U	1.82	U
Trichloroethene	0.23	UJ	0.23	U	0.23	U	30.2	
Trichlorofluoromethane	1.06		1.23		0.84		2.24	U
Vinyl acetate	0.35	U	0.35	U	0.35	U	1.41	U
Vinyl bromide	0.44	U	0.44	U	0.44	U	1.75	U
Vinyl chloride	0.26	U	0.26	U	0.26	U	1.02	U
Xylene, m/p	3.08	J	2.08		1.82		3.47	U

Notes:
Results in micrograms per cubic meter (µg/m3)
Samples analyzed for VOCs by method TO-15
QC Code:
FS = Field Sample
Qualifiers:
U = Not detected at a concentration above the reporting limit
J = Estimated value
D = Results were reported from a duplicate analytical run
R = Rejected result

Table Created by: ASZ 6/1/06
Table Checked by: CRS 7/30/06

Appendix E
Table 1.5: Groundwater VOC TICs

Lab ID	X1339-10	
Locatin ID	GW-10	
Sample No	CRGW01002601XX	
Samp Date	1/24/2006	
Units	ug/L	
Parameter	**Lab Result**	**Lab Qual**
Benzene, (1-methyl-1-propenyl)-	5	J
Benzene, (1-methylethyl)-	12	J
Benzene, 1,2,3,4-tetramethyl-	9	J
Benzene, 1,2,3-trimethyl-	37	J
Benzene, 1,3,5-trimethyl-	9.7	J
Benzene, 1-ethenyl-3-ethyl-	8.2	J
Benzene, 1-ethyl-2,4-dimethyl-	9.9	J
Benzene, 1-methyl-4-(1-methylethyl	10	J
Benzene, cyclopropyl-	11	J
Indan, 1-methyl-	9.5	J

Notes:
Results reported in microgram per liter (µg/L)
Samples anlayzed for VOCs by EPA Method OLM04.2
Qualifiers:
J = Estimated value

Table Created by: ASZ 6/1/06
Table Checked by: CRS 7/30/06

Appendix E
Table 1.6: Groundwater VOC Results

Lab Sample Id	X5203-01		X5203-02		X5203-03		X5203-06		X5203-07	
Lab Sample Delivery Group	X5203		X5203		X5203		X5203		X5203	
Loc Name	GW-19		GW-19		MW-01		MW-05		MW-06	
Field Sample Id	CRGW01901901XX		CRGW01902901XX		CRMW00102001XX		CRMW00501201XX		CRMW00601301XX	
Field Sample Date	10/31/2006		10/31/2006		11/1/2006		11/1/2006		11/1/2006	
Qc Code	FS		FS		FS		FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,1-Trichloroethane	10	U	10	U	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	UJ	10	U	10	U	10	UJ	10	UJ
1,1,2-Trichloroethane	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	10	UJ	10	U	10	U	10	UJ	10	UJ
1,2,4-Trichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	U	10	U
1,2-Dibromoethane	10	U	10	U	10	U	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	10	U	10	U	10	U	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	U	50	U	50	U	50	U	50	U
2-Hexanone	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	UJ	10	UJ	10	U	10	U
Acetone	50	U	50	U	50	U	50	U	50	U
Benzene	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	10	U	10	U	10	U	10	U	10	U
Bromoform	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	10	UJ	10	U	10	U	10	UJ	10	UJ
Carbon tetrachloride	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	10	U	10	U	10	U	10	U	10	U
Chlorodibromomethane	10	U	10	U	10	U	10	U	10	U
Chloroethane	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Chloroform	10	U	10	U	10	U	10	U	10	U
Chloromethane	10	UJ	10	U	10	U	10	UJ	10	UJ
Cis-1,2-Dichloroethene	10	U	10	U	10	U	2	J	10	U

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Checked By: ASZ 2/5/07

Appendix E
Table 1.6: Groundwater VOC Results

Lab Sample Id	X5203-01		X5203-02		X5203-03		X5203-06		X5203-07	
Lab Sample Delivery Group	X5203		X5203		X5203		X5203		X5203	
Loc Name	GW-19		GW-19		MW-01		MW-05		MW-06	
Field Sample Id	CRGW01901901XX		CRGW01902901XX		CRMW00102001XX		CRMW00501201XX		CRMW00601301XX	
Field Sample Date	10/31/2006		10/31/2006		11/1/2006		11/1/2006		11/1/2006	
Qc Code	FS		FS		FS		FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U
Cyclohexane	10	UJ	10	U	10	U	10	UJ	10	UJ
Dichlorodifluoromethane	10	UJ	10	U	10	U	10	UJ	10	UJ
Ethyl benzene	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	10	U	10	U	10	U	10	U	10	U
Methyl cyclohexane	10	U	10	U	10	U	10	U	10	U
Methyl Tertbutyl Ether	10	U	10	U	10	U	10	U	10	U
Methylene chloride	10	U	10	U	10	U	10	U	10	U
o-Xylene	10	U	10	U	10	U	10	U	10	U
Styrene	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	10	U	10	U	6.6	J	33		5	J
Toluene	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U
Trichloroethene	10	U	10	U	10	U	2.2	J	10	U
Trichlorofluoromethane	10	UJ	10	U	10	U	10	UJ	10	UJ
Vinyl chloride	10	U	10	U	10	U	10	U	10	U
Xylene, m/p	10	U	10	U	10	U	10	U	10	U

Notes:
Results in micrograms per liter (µg/L)
Samples analyzed for VOCs by EPA Method OLM04.2
QC Code:
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank
Qualifiers:
U = Not detected at a concentration greater than the RL
J = Estimated value

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Checked By: ASZ 2/5/07

Appendix E
Table 1.6: Groundwater VOC Results

Lab Sample Id	X5203-08		X5203-09		X5203-10		X5203-11RE		X5203-12	
Lab Sample Delivery Group	X5203		X5203		X5203		X5203		X5203	
Loc Name	MW-10		GW-21		GW-21		GW-22		GW-22	
Field Sample Id	CRMW01001301XX		CRGW02101901XX		CRGW02102601XX		CRGW02201801XX		CRGW02202801XX	
Field Sample Date	11/1/2006		11/1/2006		11/1/2006		11/1/2006		11/1/2006	
Qc Code	FS		FS		FS		FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,1-Trichloroethane	10	U	10	U	10	U	10	UJ	10	U
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	10	U	10	U	10	U	10	UJ	10	U
1,1-Dichloroethane	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	4.7	J	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	U	10	U
1,2-Dibromoethane	10	U	10	U	10	U	10	UJ	10	U
1,2-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	10	U	10	U	10	U	10	UJ	10	U
1,2-Dichloropropane	10	U	10	U	10	U	10	UJ	10	U
1,3-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	U	50	U	2.4	J	50	UJ	50	U
2-Hexanone	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	UJ	10	UJ	10	UJ	10	U	10	UJ
Acetone	50	U	50	U	50	U	50	UJ	50	U
Benzene	10	U	10	U	1.1	J	10	UJ	10	U
Bromodichloromethane	10	U	10	U	10	U	10	UJ	10	U
Bromoform	10	U	10	U	10	U	10	UJ	10	U
Bromomethane	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	U	10	UJ	10	U
Chlorobenzene	10	U	10	U	10	U	10	U	10	U
Chlorodibromomethane	10	U	10	U	10	U	10	UJ	10	U
Chloroethane	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Chloroform	10	U	10	U	10	U	10	U	10	U
Chloromethane	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	35		10	U	10	U	10	U	10	U

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Appendix E
Table 1.6: Groundwater VOC Results

Lab Sample Id	X5203-08		X5203-09		X5203-10		X5203-11RE		X5203-12	
Lab Sample Delivery Group	X5203		X5203		X5203		X5203		X5203	
Loc Name	MW-10		GW-21		GW-21		GW-22		GW-22	
Field Sample Id	CRMW01001301XX		CRGW02101901XX		CRGW02102601XX		CRGW02201801XX		CRGW02202801XX	
Field Sample Date	11/1/2006		11/1/2006		11/1/2006		11/1/2006		11/1/2006	
Qc Code	FS		FS		FS		FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	UJ	10	U
Cyclohexane	38		10	U	1.6	J	10	U	10	U
Dichlorodifluoromethane	10	U	10	U	10	U	10	UJ	10	U
Ethyl benzene	20		10	U	10	U	10	U	10	U
Isopropylbenzene	13		10	U	10	U	10	U	10	U
Methyl cyclohexane	43		10	U	1.4	J	10	UJ	10	U
Methyl Tertbutyl Ether	10	U	10	U	10	U	10	U	10	U
Methylene chloride	10	U	10	U	10	U	10	U	10	U
o-Xylene	0.88	J	10	U	10	U	10	U	10	U
Styrene	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	110		10	U	10	U	10	U	10	U
Toluene	10	U	10	U	1.7	J	10	U	10	U
trans-1,2-Dichloroethene	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	U	10	U	10	U	10	UJ	10	U
Trichloroethene	77		10	U	10	U	10	UJ	10	U
Trichlorofluoromethane	10	U	10	U	10	U	10	UJ	10	U
Vinyl chloride	9	J	10	U	10	U	10	U	10	U
Xylene, m/p	7.1	J	10	U	0.95	J	10	U	10	U

Notes:
Results in micrograms per liter (µg/L)
Samples analyzed for VOCs by EPA Method OLM04.2
QC Code:
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank
Qualifiers:
U = Not detected at a concentration greater than the RL
J = Estimated value

Created By: WBC 1/29/06
Checked By: ASZ 2/5/07

Appendix E
Table 1.6: Groundwater VOC Results

Lab Sample Id	X5203-13		X5203-14		X5203-15		X5203-16		X5203-17	
Lab Sample Delivery Group	X5203		X5203		X5203		X5203		X5203	
Loc Name	GW-24		GW-24		GW-25		GW-25		GW-25	
Field Sample Id	CRGW02402301XX		CRGW02401301XX		CRGW02501201XX		CRGW02501201XD		CRGW02502201XX	
Field Sample Date	11/1/2006		11/1/2006		11/1/2006		11/1/2006		11/1/2006	
Qc Code	FS		FS		FS		FD		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,1-Trichloroethane	10	U	10	U	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	10	U	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	U	10	U
1,2-Dibromoethane	10	U	10	U	10	U	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	10	U	10	U	10	U	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ
2-Hexanone	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	U	10	U	10	U
Acetone	50	UJ	50	UJ	50	UJ	50	UJ	50	UJ
Benzene	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	10	U	10	U	10	U	10	U	10	U
Bromoform	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	10	U	10	U	10	U	10	U	10	U
Chlorodibromomethane	10	U	10	U	10	U	10	U	10	U
Chloroethane	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Chloroform	10	U	10	U	10	U	10	U	10	U
Chloromethane	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	10	U	10	U	10	U	10	U	10	U

Created By: WBC 1/29/06
Checked By: ASZ 2/5/07

Appendix E
Table 1.6: Groundwater VOC Results

	Lab Sample Id	X5203-13		X5203-14		X5203-15		X5203-16		X5203-17	
	Lab Sample Delivery Group	X5203		X5203		X5203		X5203		X5203	
	Loc Name	GW-24		GW-24		GW-25		GW-25		GW-25	
	Field Sample Id	CRGW02402301XX		CRGW02401301XX		CRGW02501201XX		CRGW02501201XD		CRGW02502201XX	
	Field Sample Date	11/1/2006		11/1/2006		11/1/2006		11/1/2006		11/1/2006	
	Qc Code	FS		FS		FS		FD		FS	
Param Name		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
cis-1,3-Dichloropropene		10	U	10	U	10	U	10	U	10	U
Cyclohexane		10	U	10	U	10	U	10	U	10	U
Dichlorodifluoromethane		10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Ethyl benzene		10	U	10	U	10	U	10	U	10	U
Isopropylbenzene		10	U	10	U	10	U	10	U	10	U
Methyl cyclohexane		10	U	10	U	10	U	10	U	10	U
Methyl Tertbutyl Ether		10	U	10	U	10	U	10	U	10	U
Methylene chloride		10	U	10	U	10	U	10	U	10	U
o-Xylene		10	U	10	U	10	U	10	U	10	U
Styrene		10	U	10	U	10	U	10	U	10	U
Tetrachloroethene		10	U	10	U	10	U	10	U	10	U
Toluene		10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene		10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene		10	U	10	U	10	U	10	U	10	U
Trichloroethene		10	U	10	U	10	U	10	U	10	U
Trichlorofluoromethane		10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Vinyl chloride		10	U	10	U	10	U	10	U	10	U
Xylene, m/p		10	U	10	U	10	U	10	U	10	U

Notes:
Results in micrograms per liter (µg/L)
Samples analyzed for VOCs by EPA Method OLM04.2
QC Code:
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank
Qualifiers:
U = Not detected at a concentration greater than the RL
J = Estimated value

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Appendix E
Table 1.6: Groundwater VOC Results

Lab Sample Id	X5203-18		X5268-01		X5268-02		X5268-03		X5268-04	
Lab Sample Delivery Group	X5203		X5268		X5268		X5268		X5268	
Loc Name	QC		GW-18		GW-18		GW-20		GW-20	
Field Sample Id	CRTB001XXX02XX		CRGW01802001XX		CRGW01803001XX		CRGW02001901XX		CRGW02002901XX	
Field Sample Date	11/1/2006		11/2/2006		11/2/2006		11/2/2006		11/2/2006	
Qc Code	TB		FS		FS		FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,1,1-Trichloroethane	10	U	10	U	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	10	U	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	U	10	U
1,2-Dibromoethane	10	U	10	U	10	U	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	10	U	10	U	10	U	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	U	50	UJ	50	UJ	50	UJ	50	UJ
2-Hexanone	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	U	10	U	10	U
Acetone	8.1	J	50	UJ	40	J	50	UJ	14	J
Benzene	10	U	10	U	0.82	J	10	U	10	U
Bromodichloromethane	10	U	10	U	10	U	10	U	10	U
Bromoform	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	U	10	U	10	U	10	U	10	U
Carbon disulfide	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	10	U	10	U	10	U	10	U	10	U
Chlorodibromomethane	10	U	10	U	10	U	10	U	10	U
Chloroethane	10	U	10	UJ	10	UJ	10	UJ	10	UJ
Chloroform	10	U	10	U	10	U	10	U	10	U
Chloromethane	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	10	U	10	U	10	U	10	U	10	U

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Table 1.6: Groundwater VOC Results

Lab Sample Id	X5203-18		X5268-01		X5268-02		X5268-03		X5268-04	
Lab Sample Delivery Group	X5203		X5268		X5268		X5268		X5268	
Loc Name	QC		GW-18		GW-18		GW-20		GW-20	
Field Sample Id	CRTB001XXX02XX		CRGW01802001XX		CRGW01803001XX		CRGW02001901XX		CRGW02002901XX	
Field Sample Date	11/1/2006		11/2/2006		11/2/2006		11/2/2006		11/2/2006	
Qc Code	TB		FS		FS		FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U
Cyclohexane	10	U	10	U	10	U	0.97	J	10	U
Dichlorodifluoromethane	10	U	10	UJ	10	UJ	10	UJ	10	UJ
Ethyl benzene	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	10	U	10	U	10	U	10	U	10	U
Methyl cyclohexane	10	U	10	U	10	U	0.88	J	10	U
Methyl Tertbutyl Ether	10	U	10	U	10	U	10	U	10	U
Methylene chloride	10	U	10	U	10	U	10	U	10	U
o-Xylene	10	U	10	U	10	U	10	U	10	U
Styrene	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	10	U	10	U	10	U	10	U	10	U
Toluene	10	U	10	U	1.1	J	0.99	J	10	U
trans-1,2-Dichloroethene	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U
Trichloroethene	10	U	10	U	10	U	10	U	10	U
Trichlorofluoromethane	10	U	10	UJ	10	UJ	10	UJ	10	UJ
Vinyl chloride	10	U	10	U	10	U	10	U	10	U
Xylene, m/p	10	U	10	U	10	U	1.4	J	10	U

Notes:
Results in micrograms per liter (µg/L)
Samples analyzed for VOCs by EPA Method OLM04.2
QC Code:
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank
Qualifiers:
U = Not detected at a concentration greater than the RL
J = Estimated value

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Appendix E
Table 1.6: Groundwater VOC Results

	Lab Sample Id	X5268-05		X5268-06	
	Lab Sample Delivery Group	X5268		X5268	
	Loc Name	GW-23		GW-23	
	Field Sample Id	CRGW02301901XX		CRGW02302701XX	
	Field Sample Date	11/2/2006		11/2/2006	
	Qc Code	FS		FS	
Param Name		Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane		10	UJ	10	UJ
1,1,2,2-Tetrachloroethane		10	U	10	UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane		10	UJ	10	UJ
1,1,2-Trichloroethane		10	U	10	UJ
1,1-Dichloroethane		10	U	10	UJ
1,1-Dichloroethene		10	UJ	10	UJ
1,2,4-Trichlorobenzene		10	U	10	UJ
1,2-Dibromo-3-chloropropane		10	U	10	UJ
1,2-Dibromoethane		10	U	10	UJ
1,2-Dichlorobenzene		10	U	10	UJ
1,2-Dichloroethane		10	U	10	UJ
1,2-Dichloropropane		10	U	10	UJ
1,3-Dichlorobenzene		10	U	10	UJ
1,4-Dichlorobenzene		10	U	10	UJ
2-Butanone		50	U	50	UJ
2-Hexanone		50	U	50	UJ
4-Methyl-2-pentanone		50	U	50	UJ
Acetic acid, methyl ester		10	UJ	10	UJ
Acetone		50	U	50	UJ
Benzene		10	U	10	UJ
Bromodichloromethane		10	U	10	UJ
Bromoform		10	U	10	UJ
Bromomethane		10	U	10	UJ
Carbon disulfide		10	UJ	10	UJ
Carbon tetrachloride		10	UJ	10	UJ
Chlorobenzene		10	U	10	UJ
Chlorodibromomethane		10	U	10	UJ
Chloroethane		10	UJ	10	UJ
Chloroform		10	U	10	UJ
Chloromethane		10	UJ	10	UJ
Cis-1,2-Dichloroethene		10	U	10	UJ

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Table 1.6: Groundwater VOC Results

	Lab Sample Id	X5268-05		X5268-06	
	Lab Sample Delivery Group	X5268		X5268	
	Loc Name	GW-23		GW-23	
	Field Sample Id	CRGW02301901XX		CRGW02302701XX	
	Field Sample Date	11/2/2006		11/2/2006	
	Qc Code	FS		FS	
Param Name		Result	Qualifier	Result	Qualifier
cis-1,3-Dichloropropene		10	U	10	UJ
Cyclohexane		10	UJ	10	UJ
Dichlorodifluoromethane		10	UJ	10	UJ
Ethyl benzene		10	U	10	UJ
Isopropylbenzene		10	U	10	UJ
Methyl cyclohexane		10	U	10	UJ
Methyl Tertbutyl Ether		10	U	10	UJ
Methylene chloride		10	U	10	UJ
o-Xylene		10	U	10	UJ
Styrene		10	U	10	UJ
Tetrachloroethene		10	U	3.2	J
Toluene		10	U	10	UJ
trans-1,2-Dichloroethene		10	U	10	UJ
trans-1,3-Dichloropropene		10	U	10	UJ
Trichloroethene		10	U	10	UJ
Trichlorofluoromethane		10	UJ	10	UJ
Vinyl chloride		10	UJ	10	UJ
Xylene, m/p		10	U	10	UJ

Notes:
Results in micrograms per liter (µg/L)
Samples analyzed for VOCs by EPA Method OLM04.2
QC Code:
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank
Qualifiers:
U = Not detected at a concentration greater than the RL
J = Estimated value

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Appendix E
Table 1.7: Groundwater VOC TICs

Lab Sample Id	X5203-08		X5203-10		X5268-02		X5268-03		X5268-04	
Lab Sample Delivery Group	X5203		X5203		X5268		X5268		X5268	
Loc Name	MW-10		GW-21		GW-18		GW-20		GW-20	
Field Sample Id	CRMW01001301XX		CRGW02102601XX		CRGW01803001XX		CRGW02001901XX		CRGW02002901XX	
Field Sample Date	11/1/2006		11/1/2006		11/2/2006		11/2/2006		11/2/2006	
Qc Code	FS		FS		FS		FS		FS	
Param Name	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
1,2,3-Trimethylbenzene	49	NJ								
1,2-Diethylbenzene	28	JN								
1,3-Dimethyl-4-ethylbenzene	29	JN								
1,4-Dimethylcyclohexane	57	JN								
2,3,4-Trimethylpentane	50	JN								
3-Methylhexane	35	JN								
4-Methyl-2-hexene (c,t)	31	JN								
Benzene, 1-butynyl-	38	NJ								
Cyclohexane, 1-methyl-4-methylene-	39	JN								
Propylene			19	JN	12	JN	8.4	JN	7	JN
1-PROPENE, 2-METHYL-					9.5	JN				
2-Butene-Trans							6.9	JN	6.1	JN

Notes:
Results in micrograms per liter (µg/L)
Samples analyzed for VOCs by EPA Method OLM04.2
QC Code:
FS = Field Sample
Qualifiers:
JN = Analyte was tenatively identified and the value is estimated

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